

## Krause dietoterapia 14 edicion pdf download gratis 2017 hd

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Krause 14th edition pdf.
Remainder...... Typesof Osteoporosis The two types of primary or involutional osteoporosis should be considered be a diseasewith a broad spectrum of variantsforms of the disorder. Only for simple distinction is the classification of
the two types used here (Table24-6). Boffeta P: Alcohol and lung cancer:do we havet reason as protein or carbohydrate (9 kcal versus 4 kcal), an effective diet can be one that includes extensive controls on this nutrient. They are used for patients with
conditions of maldigestion or malabsorption. Ann ThoracSurg 72:348, 2001. Nutritional Genomics hnpl.// cancereenome.nih.gov www.nutrigenomics. Molnar D, SchutzY The effect of obesiVt age, puberty and genderon restingmetabolicrate in children and adolescents, Eur J Pediatr156:376, 1997. HiatalHernia
Pathophysiology A common contributor to gastroesophageal reflux and esophagitis is hiatal hernia. A later rebound is correlated with normal adult weight (Rolland-Cachera, 2005). o+ >tr d'o -;. To determine pulmonary status, the clinician uses the results of numerous diagnostic and monitoring tests such as imaging procedures, arterial blood
gasdeterminations, sputum cultures, and biopsies. Also important are pulmonary function tests, a group of proceduresdesigned to measure the ability of the respiratory sysrem to exchange or year and carbondioxide. Ti auma, surgery However, care must be taken with these products because Septicemia hyperglycemia not uncommonasa result of
glucoseintolNephrotoxicity erance, and additionalinsulinis often needed. bo d -d o. Toxoplasmosisof brain . McNally L: American Dietetic Association may become unavailable as further inquiry into its side effects is carried out.
ThppendenKA et al: Early enteralnutrition may have detrimentaleffectsin patientswith gastrointestinal hypoperfusion[abstract]. Presented the Tiventy-second Clinical Congress, American Society for Parenteral Nutrition, January 1998. Urinary iodine excretion studies suggest that iodine intakes are declining in the United States, possibly as
a result ofincreased adherence to dietary recommendations to reduce salt intake. Although most vegetarians meet or exceed the requirements for protein, their diets tend to be lower in protein than those of omnivores. The part of the plant used to prepare the product, confirming that it is the part that contains the active components. Resnicow!
CampbellMK: Body and soul: a dietaryintervention conductedthrough African-Americanchurches, Am J Preuent Med27:97,2004. CallahanT: Personalcommunication, May 29,2002. The glomerulus is a spherical mass of capillaries surrounded by a membrane, Bowman's capsule. The function of the glomerulus is production of the large amount of
ultrafilffate, which the following segments of the nephron then modifi'. Flormonal Control of Blood Sugar J n the body blood glucose must be maintained at a miniImum level (70 to 100 mgl100 ml) to provide fuel for the brain, central nervous system, and other obligate consumers of glucose. Administration requires a functioning gastrointestinal tract
w'ith respect to both absorption and motility, which the critically ill patient often does not have. org AmericanSocietyfor Enteral a n dPa r e n t e r aNl u tri ti o n ME D L I N Eplus http://wwwmedlineplus. Salmonellasepticemia, recurrent . It is more expensive than calcium carbonate, and more of it must be taken to get the same armount of calcium
Consequently'atherosclerosis calleda silent diseasebecausemany individualsare as)4nptomatic until the first MI, which is often fatal. Fostering dependenry I Reinforcing irrational beliefs . RefsumH et al: Homocysteineand cardiovasculardise*e,Annu ReaMed.1998 49:31,1998. Given appropriate guidelines, the majority of people with diabetes can
exercise safely. SampathH, Ntambi JM: Poly'unsarurated farty acid regulation of genesof lipid metabolism, Annu ReuNut 25:317,2005. Fat content should not exceed 30% of total calories. Ascherio A et al: Intake of potassium, magnesium, calcium, and fiber and risk of stroke among IJ.S. men, Circuhtion 98: I198, 1998. The omega-3 supplements may
be most beneficial in the trearrnent of severehypertriglyceridemia (Patti et al., 1999). In addition, two or more servings of fish per week (with the exception of commercially fried fish filets) can be recommended (ADA, 2007). IJrea predominates in amounts depending on the protein content of the diet. Nutrients that have been supplemented in
commercially available nutrition support products for a therapeu- tic effect have been limited primarily to adult enteral nutrition formulas. Hematopoietic StemGellTransplantation (HSCT) is performed for the treatment of certain hematologic malignant diseases such as leukemia and lyrnphoma, malignant solid
tumors, and autoimmune disorders. CHAPTER 35! Medical l{utritionTherapy for Pulmonary Disease9f5 VitaminSupplementation* Vltamln A (International untts) 0-12mo l-3 yr 4-8 yt >8 yr 1500 5000 5000-10,000 10.000 Data from Remsey BW et al: Nuritional untts)
t992. Postmenopausal women, often uninformed about intravenous transmission, mav have sexually active partners who use condoms lessoften o. ...... Increasingly nutrition recommendations will be customized to the genetic uniqueness of individuals and their particular diseasesusceptibilities and functional abilities. China. What dietary
recommendations, if any, are appropriate for a regimen of tamoxifen? We always discussplans and I never follow them. Selected FoodSourcesof VitaminD Food Micrograms pel Sclving %DailyValue* Natulal Sources Herring, 3 oz Herring, pickled, 3 oz Salmon, pink, canned, 3 oz Halibut, 3 oz Cod liver oil,* I tsp Catfish, 3 oz Mackerel. Adantic. Thanks to
the Internet, incredible backdrops for your laptop or mobile device are only a few moments away. BMI and CHD are positively related; as BMI goes up, the risk of CHD also increases. Nell cools her ov'.n breakfasg consisting typically of eggs, toasg and coffee with real cream. Not surprisingly such power raisesmany concerns. From its inception, the
Human Genome Project has addressedsuch implications ofgenetic research. Professionals from diversed isciplines are working together to identif and address the ethical, legal, and social implications (ELSD that are emerging. Clients from individual-oriented cultures enjoy confidentiality and privacy of individual health careissue; whereas clients from individual-oriented cultures enjoy confidentiality and privacy of individual health careissue; whereas clients from individual-oriented cultures enjoy confidentiality and privacy of individual health careissue; whereas clients from individual-oriented cultures enjoy confidentiality and privacy of individual health careissue; whereas clients from individual-oriented cultures enjoy confidentiality and privacy of individual health careissue; whereas clients from individual-oriented cultures enjoy confidentiality and privacy of individual health careissue; whereas clients from individual-oriented cultures enjoy confidentiality and privacy of individual health careissue; whereas clients from individual-oriented cultures enjoy confidentiality and privacy of individual health careissue; whereas clients from individual-oriented cultures enjoy confidentiality and privacy of individual health careissue; whereas clients from the confidential health careissue; whereas clients from the confidential health careissue; whereas clients from the confidential health careissue; whereas clients fr
grouporientedcultures require greater participation of their families and relatives in decisions affecting health and illness. 2006). (C Frnn Lewis SM, Heitkemper MM, Dirksen SR: Medical-surgical nursing: assessment and management of clinical problems, ed 5, St. Louis, 2000, M^b.) have treafinents lasting from 1.5 to 2.5 hours, whereas some home dialysis
patients receive nocturnal dialysis three times a week for 8 hours. Indicate that each person is the expert about his or her own behavior. The content of the major carotenoids are given in mole%. Evaluation of one's own beliefs and attitudes and being comfortable with the differences (race, ethnicity, beliefs, culture, and food practices) that may exist
between oneself and clients is the first and most important step (see Tables 12-7 and 12-8 in Chapter 12). diabetes mellitus, and as syndrome, and
severalautoimmunediseases Sjcigren's of radiation therapyand certainmedications a consequence (Box 25-3). Xerostomiafrom radiationtherapymay be more permanent than that from other causes (Kielbassaet al., 2006). Knox LS et al: Energy expenditure in malnourished cancer patients, Ann Surg 197:152, 1983. eJualeard agr ur serueJelJrp Iro qsg pue
lerp Jrurpa/lerJ?u:uoDue^aJdpuBlortuo] es?esrcJoJsreluec d:oleuruegur-Duv :lEte O urepv prJ€JruoprrlreJe^rol EJo slra33a .'002 .gI:is .5661, ,sererS parrull Sgtl saypa61f .ug &uww,4661 'ueruur srseqludsorg -suoDrpuol JDeruner{J rerpo pue sorJrpJB prouesoJre pue uoDeprxoTC-I saleFruns Jo stsoclJaJrpur puetJerrp:arepd11:uonuelerd sasea:cep
pue lortuo3 aseesrqroJ sretue3 pue sla^ol1o-reqdoror-eqd1e tarp tq--{roT :1? (h bo! F: q! q) -0.) rl d --o 9?o d : ,6 5.Y E d (.) () P .,Fr A-A^*i 6 t) \*R for DietaryPlanning 355 12 ! Guidelines CHAPTER r + EE Fs = 3 H y'5 H (J a >\ 6a :'i o . He is on the road every week and recendy saw his physician about headaches, dizziness, and insomnia. Encouraging
in the client self-efficacy and self-management, the ability to change through his or her own decisions is and important and worthy goal of any counseling. The %DV listed on the Nuuition Facts panel of food labels states the percentage of the DV provided in one serving. Giving the person license to distribute fat grams
as desired throughout the day makes the approach more appealing, involves the person in the treatment process, and results in lower energy intake without hunger. Currently four classesof oral medications exist: (1) insulin secretagogues, which include the sulfonylureas (firstand second-generation) and the meglitinides (repaglinide and nateglinide);
(2) biguanides (metformin); (3) thiazolidinediones (TZDs) (e.9., pioglitazone, rosiglitazone, ro
obesityand response to dietaryfats (Qi et al., 2004a, 2004b). Proper inclusion of antioxidants and specific nutrients may protect the AD patient from further decline (Meydani, 2001). o What doseor how much are you taking? The body of knowledge on issuessuch as this is constandy being updated, and there are now recommendations to restrict the
consumption of certain fish such as shark, mackerel, tilefish, tuna, and swordfish by pregnant women (CFSAN, 2007) (seeChapter 5 for further discussion). Other contaminants in fish, polychlorinated biphenyls (PCBS) and dioxin are also of concern (tr{ozaffarian and Rimm, 2006). Seea/soMultiple organ MEG. StoverP: Nutritional
genomics, PhysiolGenomics 16:161,2004. Only high-risk or vulnerable plaqueforms thrombi. ShoffrrerJM, WallaceDC: Mitochondrial genetics: principles and Rollnick, 1991). Siri PW et al: \4tamins 86, B12, and folate: Association with
plasmatotal homocysteineand risk of coronaryatherosclerosis, J Am CollNatrlT:435,1998. See also Carbohydrates catabolism of, in fasted state,66-67 definition, 41 fats and lipids as, 50-59. The timing of food presentation also deserves consideration. Manganese is required for the biosy.nthesisof mucopolysaccharides in bone matrix
formation, and it also acts as a cofactor in energy-generating reactions. Magnetic resonance imaging scans show smaller lesions and can be used to follow atherosclerosis progression for many individuals with hypertension. ornl. The land
on which organic crops are grown is required to be pesticideand herbicide free for 3 years before a crop is harvested. In addition, bioengineering or genetic modification or ionizing radiation cannot be used in the production of the food. failure, Congest GoldbergA et al: Effect of plant stanoltabletson low-density lipoprotein cholesterollowering in
patientson statin drtgs, Am J Cardiol9T:376,2006. The figure of 2 kctUghas been proposed for fiber because of the "unavailable carbohydrate" that resists digestion and absorption (Guenther and Jensen, 2000). A MET value of I is the oxygen metabolized at rest (3.5 ml of oxygen per kilogram of body weight per minute in adults) and can be expressed
as I kcal per kilogram of body weight per hour (Ainsworth et al., 1993). Besides of the potential for aspiration, other negativeconsequences nocturnal tube feedingsmust be considered. Even in healthy by 15% to 257" duradults, oxygenconsumption decreases ing sleep. It is not yet clear how quantitatively important any of these factors are in the typical
U.S. diet (Ilich and Kerstettea 2000). Recent epidemiologic evidenceand experimentaldata (Grosset al., 2004) haveprovided evidencethat high-fructosediets (in conjunctionwith other factors) may contribute to the development of type 2 diabetes and syndromeX (see Chapters 9, 30, and 32). Growth retardation and difficulty maintaining desired weight for
height are common problems. SCFAsarereadilyabsorbed by the intestinaland colonicmucosa; and they (1) enhance sodiumandwater absorption, (2) increase entabolic energy production, (3) increase entabolic energy production, (4) enhance colonic blood flow, (5) stimulate the autonomic nervous system, and (6) increase entabolic energy production, (2) increase entabolic energy production, (3) increase entabolic energy production, (4) enhance sodiumandwater absorption, (5) stimulate the autonomic nervous system, and (6) increase entabolic energy production, (6) increase entabolic energy production, (6) increase entabolic energy production, (7) enhance entabolic energy production, (8) enhance entabolic energy production, (8) enhance entabolic energy production, (9) enhance entabolic energy production, (10) enhance entabolic energy production energy
1997). substitutes are beneficial for temporary relief of dry mouth; in addition, liquids and foods with sauces and gravies are usually well tolerated. Simple and straightforward statements are most effective, even if they involve negative feelings. Any advice given can be taken or disregarded. In this regard the control of circulating blood volume
predominates over the control of all other parameters. Thus sodium, the most important molecule in determining the body's circulating volume is reflected in marked changes in urine as well as in serum composition of potassium, bicarbonate, and water. A
small amount of fluoride enters t}re soft tissues; the remainder is excreted. See also Actte renal failure (ARF) definition, 921 function, 921 function, 921 function, 922-923 transplantation, 929-93 | kilocalories (kcals or CALs) definition, 22, 26 of alcoholic
abnormal, as nutritional risk factors, 387t assayapes and,413-414 basic metabolic panel, 414b for nutrition assessment,425-427, 4 2 7- 4 2 8 t in in in in eating disorder assessment,575 hydration status assessment,417
premature infant assessment, I 136 protein-calorie malnutntron assessment, 4t7 -421 nutrition-specific, 414 definition, 412 routine medical. The integrity of the oral cavity and surrounding structures can affect functional and sensory components of normal dietary intake and subsequent nutritional status. I unit: 0.67 cr-TE in the I form and about % of
that in the l/ or syinthetic form. that are amplesof both of the systems need ofthe organizationaland This is an areathat hasgreat of food and nutrition professionalskills and the knowledge (ADA, 2005). Because of the variety of presentations and symptoms, dyspepsia may overlap with other problems such as GERD or irritable bowel syndrome, anxiety
and depression. Diet, stress, and other lifestyle factors may contribute to the symptoms of patients with functional dyspepsia. o\l/o\o O [email protected] = dtEV. Ei sT Ele; F; e " ':rii' i u F\\ n-.P 6 ?\\ n z Fl .i g E o F.l o h E o o @ 1242 APPENDIXES :P b0q 9t* := l (t 6 6- oo mm d 6q 6 I! EE9! 9 .E '-s o6 qoA lbo:; x'- o N o tr q) b0 .z F] N!:9 (o) tr = :=
=E3 !o o E o I tr b r0? During meiosis one member of each of the autosome and sex chromosome pairs is distributed to each haploid egg or sperm; the full set of 46 chromosomes is reconstituted on fertilization. Mizock BA, DeMichele SJ: The acute respiratory distress rymdrome: role of nutritional modulation of inflammation through dietary lipids,
Natr Clin Pract 19:563,2004. Chewy foods such as g'um drops and marshmallows although high in sugar content, stimulate saliva production and have a lower adherence potential than solid, sticky foods such as pretzels, bagels, or bananas. High-fiber foods with few or no fermentable carbohydrates, such as popcorn and raw vegetables, are cariostatic.
counselin g.orglresources/codeofethics.htrn#ce Cultural Competency http://www.thinkculturalhealth.orgl Cultural Competency Resources http://www. SantosKF et al: The prima donnaof epigenetics:the regulation of geneexpressionby DNA methylation, BrazJ Med. Biol Res 38:1531,2005. No salt is allowed in traditional Passover matzo. All of the
recommended bone-conserving drugs except intermittent PTH therapy have antiresorptive effects; only intermittent PTH is a practical bone-forming drug now being routinely used in the early prevention or later treaunent of bone loss (see following paragraphs). LambertJD et al: Inhibition of carcinogenesis by pollphenols: evidence from laboratory
investigations, Am J Clin Nutr 81(suppl):284S, 2005. APPENDIXES L297 Chromium is known to enhance the action of insulin; chromium was identified as the active ingredient in the "glucose tolerance factor" many years ago. Weiler FIA et al: Minimal enteralfeedingwithin 3 d of birth in prematurelyborn infana with birth weight (1200g improves
bonemassby term age, Am J Clin Nut 81:155, 2006. Low-Phenylalanine Foods. She has no significant medical history; her family history reveals that her mother has type 2 diabetes. Note that, in addition to a listing of specific supplements, nutrients, and botanicals, the form also identifies the health conditions that motivated the use of supplements.
Conversely, when the diameter is increased (as with vasodilator drug therapy), resistance decreases and blood pressure is lowered. Masoro EJ: Caloric restricrionand aging:conrroversialissues, Series A: Biol SciMed Sci6l:14,2006. Magnesium Intake More than 50% of the magnesium in the body is found in bone tissue, but the role of this mineral in
bone functions is poorly understood. The most successful operations are performed on younger persons with only small amounts of fat to be removed, where the elastic properties of the skin are able to allow tightening over the aspirated areas. There are precautions in place at the federal, state, and local levels that need to be addressed by dietetics
professionals whose role includes advocacy, as well as communication and education, to help the public and the importance of carrying out programs for food and water safety and protection. Between 1992 and 2002 the age-adjusted deathrate from hypertension increased by 27%; overall deaths from the importance of carrying out programs for food and water safety and protection.
hypertension increasedby 570/".Death rates from hypertensionare about 3.5 times higher in blacks than in whites (AHA, 2005). Hypertensionis a major contributing factor to atherosclerosis, the underlying causeof much CVD (Kher and March, 2004). In adults with blood pressures ranging from 115/75 to 185/ll5 mm Hg, the risk of CVD doubles with a 20 times higher in blacks than in whites (AHA, 2005). Hypertension is a major contributing factor to atherosclerosis, the underlying cause of much CVD (Kher and March, 2004). In adults with blood pressures ranging from 115/75 to 185/ll5 mm Hg, the risk of CVD doubles with a 20 times higher in blacks than in whites (AHA, 2005). Hypertension is a major contributing factor to atherosclerosis, the underlying cause of much CVD (Kher and March, 2004). In adults with blood pressures ranging from 115/75 to 185/ll5 mm Hg, the risk of CVD doubles with a 20 times higher in blacks than in whites (AHA, 2005). Hypertension is a major contributing factor to atherosclerosis, the underlying cause of much CVD (Kher and March, 2004). In adults with a 20 times higher in blacks than in whites (AHA, 2005). Hypertension is a major contributing factor to atherosclerosis, the underlying cause of much CVD (Kher and March, 2004). In adults with a 20 times higher than a contribution of the contr
mm Hg increase in SBPor a 10mm Hg increase in DBP (Lewington et a1.,2002). Stroke and myocardial infarction also are major contributors to morbidity; between 500,000 and a million peoplehavenon fatal events eachyear. The factors associated with a poor prognosisin hypertension are shown and myocardial infarction also are major contributors to morbidity; between 500,000 and a million peoplehavenon fatal events eachyear.
susceptibilities that Jared has? If not, why not? Although this drug has become widely accepted in the United States and other nations, it may result in esophageal reflux, a side effect that makes it difficult for a small subset of the population to continue this oral therapy. The drug class known as stotins is recommended in the early and long-term
postoperative periods. X, Prohibited or strongly discourrged; A, avoided by the most devout; R, some restrictions regarding types of foods or when a food may be eaten; O, permitted, but may be avoided at some observances; +, practiced. AND O D E L SF O R Health professionals can support individuals in making sustainable lifestyle changes by using
a range of behavioral techniques: assessingreadiness to change; cognitive restructuring; realistic goal setting; strategies for dietary change k d bo 492 PART 3 i NutritionCareProcess u, g 3n E o GI .9 E 3 E E C, CJ cl ! = 5 (J L CJ d L >. However, the most likely causesof diarrhea among enterally fed patiens are bacterial overgrowth, antibiotic therapy,
and gastrointestinalmotility disorders associated with acute and critical illness and not the enteral nutrition. Once digested, glucose is actively absorbed across the intestinal cell and transferred to the portal blood for transport to the liver as described in Chapter 1. Timing (constantor cyclical), type (enteralor parenteral), method of
access(nasogastric,nasojejeunal or duodenal,or PEJ or PEG), amount of support (completeor partial) and type of support (monomeric or polymeric), and other supplementationare necessary considerations for nutrition support. PPARgamma and RXR are just two members of the 48member nuclear family of receptors,
including the RXRs, PPARs, the liver X receptors (LXRs), the farnesoid X receptor, the constitutive androstane receptor (CAR), the sterol regulatory element binding proteins (SREBPs), and the nuclear vitamin D receptor SrDRnuc). temperature, and texture of food to increase eating comfori, reduce oral pain, and prevent infections or decay while
managing glucose control (seeChapter 30). Whrt foodsandnutrientswill you highlight in Vanessa's diet? pylori bacterial inflammation truncal vagotomy resection or removal of portions of the vag'usnerve to decrease the cholinergic stimulation of parietal cells and reduce the cellular response to stimulanrs such as gastnn CHAPTER 26 Disorders 655
MedicalNutritionTherapyfor UpperGastrointestinalTract vagus nerve the tenth cranial newe, which has many branchesthat supplysensoryfibers to the pha4mx, larynx, and esophagus; and parasympatheticand visceralafferentfibers to the tloracic and abdominalviscera Digestive disorders are among
the most common problems in health care. Gatuisbing . Overall a high-quality diet and avoiding nutrienr deficienciesmay offer some protection from peptic ulcer diseaseand may play a role in healing. It also increases the risk of neural tube defects in developing fetuses, which led to required fortification of cereal grains with folate in the United Stateston
ensure adequate levels in women of childbearing age (seeChapter 5). The formula sometimes used to calculate creatinine clearance (Rigalleau et al., 2006). These values for protein, fag carbohydrate, and alcohol (Figure 2-6) arc 4, 9, 4, and 7 kd/g,
respectively. Seeaho Pernicious anemia megavitamin therapy, for cancer, 985 meglitinides, in diabetesmanagement, 781, 782t melena definition, 41 menarche age of, variations in, 247-248 definition, 246 Mendelian inheritance, 37 | -372 definition, 41 menarche age of, variations in, 247-248 definition, 246 Mendelian inheritance, 37 | -372 definition, 41 menarche age of, variations in, 247-248 definition, 246 Mendelian inheritance, 37 | -372 definition, 247 definition, 248 defi
365 menhaden, as DHA and EPA source, 1107 Menkes syndrome, 127 menopausal status, cardiovascular diseaseand, 851 menopause bone mineral density after,62lb s)'rnptomsand management of ,274 menstrual stafirs, osteoporosisand, 628-629 mental illness, I 102-1104 mental retardation, I 17I definition, 1170 mercury methyl, seafood
contaminated with, in pregnancy and lactation, 180 meridians, de{inition, 470 Meridians, deiinition, 4
major portion of the daily protein and energy needs for affected infants, children, and adults. In a2-year cohort study ofpeople ages 45 and older, 36"/" of people had at least one new root decayed surface (Gilbert et al., 2001). STD/HW co-infected individuals are more likely to transmit HW sexually than those without an STD. Festival holidays include
educationallevel, lifestyle patterns and socioeconomics at least 3 to 4 hr before retiring. State and federal correctional facilities also have high
rates of confirmed AIDS (Kantor, 2003), especially among incarcerated women (De Groot, 2000). Nonprotein calories are evenly divided benreen fat and carbohydrate. Daily monitoring of eachpatient synchrotein calories are evenly divided benreen fat and carbohydrate.
offers no alternative. Department of Health and Human Services: Action against asthma, accessed February 6, 2006. and/or medicationsor other dietary supplements o Appropriate dose, brand, and chemical form; duration of supplementation; appropriate
and often fatal. In Widerman E et al, editors: Now that I haaeCF.Infmmatiunfor menand women iliagnoseilasadulrs, Hanover, 2004, SolvayPharmaceuticals. cooked, % cup Pollock, walleye, cooked, % cup Pine nuts, dried, I oz Mixed nuts, oil roasted, with peanuts, I oz White beans, canned, % cup Pollock, walleye, cooked, % cup Pine nuts, dried, I oz Mixed nuts, oil roasted, with peanuts, I oz White beans, canned, % cup Pollock, walleye, cooked, % cup Pine nuts, dried, I oz Mixed nuts, oil roasted, with peanuts, I oz White beans, canned, % cup Pollock, walleye, cooked, % cup Pine nuts, dried, I oz Mixed nuts, oil roasted, with peanuts, I oz White beans, canned, % cup Pollock, walleye, cooked, % cup Pollock, walleye, cup Pollock, walleye, cooked, % cup Pollock, walleye, c
ruw, V+ crtp Soybeans, green, cooked, % cup Tirna, yellowfin, cooked, % cup Tofu, firm, prepared with nigari, f r/z cttp Okra, cooked from frozen, % cup Soy beverage, 1 cup Cowpeas,
47 1L7 tz t) tt.7 tt.7 11. In Widerman E et al, editors: Now that I haae CF: informatiun for men and wurncn diagnosedas adalts, Hanover, 2004, Solvay Pharmaceuticals. Both slmdromes are characterized by intellectual disabilities, but Prader-Willi individuals also experience a lack of perception of satiety, which leads to overeating and lifelong
challenges with morbid obesity. Zemel BS et al: Effect of zinc supplementation grouth and body composition children with sickle cell disease, Am J Clin Nurr 75:300,2002. If fermentable carbohydrates are not cleared fr-9m the oral cavity, the decay process begins and can easily affect the roots of the teeth that are exposed due to the receding
gum line. Ammann P et al: Protein undernutrition-induced bone loss is associated with decreased IGF-l levels and estrogen deficiency, J BoneMiner Resl5:683, 2000. Calculated combinations of complementary protein sources is not necessary especially if protein sources are reasonably varied. plasmalipoprotein-lipidlevels, Physiol Hihi AK et al:
PPARs:transcriptionaleffectorsof fatry acidsand their derivatives, CellMol Life Sci59:790,2002. Okasha M et al: Body mass index in young adulthood and cancer mortality: a retrospective cohort sttdy, J Epidemiol Commun Heahh 56:780,2002. If bloatins or abdominal discomfort develops, the patient is encourageidto wait 10 to 15 minutes before
proceeding with the ."-"i.rd., Factorsto ConsiderWhen Choosingan EnteralFormula Gastrointestinal function The type of protein, fat, carbohydrate, and fiber in the formula (i.e., kcaVml, g protein/ml, and kcal:nitrogen ratio) Ability of the formula
taken in the amounts tolerated, to meet the patient's nutritional requirements Sodium, potassium, magnesium, and phosphorus content of the formula allocated for that feeding of formula allocated for that feeding. Fish, liver, and egg yolls are
the only foods that naturally contain vitamin D. For patients who are terminally ill or in a persistent vegetative state, nutrition support can extend life to the point that issues of quality of life and the patient's right to self-determination come into play. gov http://www.ed.gov epa.govlsafewater http://www.epa.govlost/fi sh htrp://www.poultryegg.org
Norr: Specificwebsitesoften changebecauseofupdating. diseasehas long been recognized(Gaultier er al., 19g9). Loss or gain of nucleotides, and copy number variants also appear to have important functional consequences. The assessments hould be completed in the first visit if possible. See also Chronic fatigue
syndrome definition, 1042 chaoticeatingin eatingdisorders,574 charting, 459-463 medicalrecord formats,461-462t,461-463, 462b CHD. This problem is more pronounced in older adults, whose appetite and intake may be compromised further by chronic disease, social isolation, and the use of multiple medications (see Chapter 16). Finally, lifestyle
modifications are rhe first-line of therapy for patients with GERD, including change in dietary practices, weight loss, smoking cessation, and elevation of the head of the bed (Kaltenbachet al., 2006). Although most cases of esophagitis are related to reflux of gastric contents, esophagitis may also be related to viral and bacterial infection, ingestion of
corrosive agents, and radiation. Deitch EA et al: Role of the gut in the development finjuryand shock-induced SIRS and MODS: the gut]l'rnph hypothesis, a review, Front Bioscill: 520,2006. Gastrointestinal cancersare especially detrimental. On the other hand, cell membranes must be stable and flexible for optimum function. r Any
counselingrelationshipfor the purpose of of the behavioralchange begins with assessment client is left frustrated and the client is left frustrated and the client is left frustrated and the counselor feeling ineffective. All of these cause renal vasoconstriction, which results in ischemia or arterial changes. Before transplantation, patients are already likely to
have osteopenia because of their lack of activity and cardiac cachexia. The composition of enamel and dentin, the location of teeth, the quality and quantity of saliva, and the presence and extent of pits and fissures in the tooth crown are some of the factors that govern susceptibility. Blood is forbidden as food becauseblood is synonymous with life. her
supplemental calcium to 500 mglday? Bakery products and prepared food mixtures must be produced under acceptable kosher standards. When acid reflux occurs with a hiatal hernia, the gastric contents remain above the hiatus longer than if the canal were intact. 1, Hexokinase/glucokin
phosphotasein gluconeogenesis. Although desigred primrily for people with diabetes md othem who must follow special diets, the Exchangeresins such as
Kayexalate, SampleGalculation of FluidRequirements in AcuteRenalFailure which exchange potassium (K+) for sodium (Na+) in the gastrointestinal tract, can be used to treat high K+ concentrations, but for many reasons these resins are less than ideal. Spnptoms include the following: fatigue, anorexi a., dizztness, nausea, vomiting, headache, weight
loss, shormess of breath, and grayish color to the skin. SeeBone mineral content definition, 614 B M D. In Bowman B, Russell R, editors: Presentknowled.ge in nutrition, ed 9, Washington, DC, 2006, ILSI Press. There are estimates that between 400 and 500 medications currently available by prescription or over the counter may cause dry mouth.
Fluid considerations: extra water, fV fluids (including medications) Parenteral l. Diet adequacy is particularly important both before and after periodontal surgery, when adequate nutrients are needed to regenerate tissue and maintain an immune response to prevent infection. Chromium values in foods are approximate and should only serve as a
guide. Seeaho Developmental disability(ies), from neurologic disorders dysphagia in, 1074-1076, 1078 berlieri as, 1078 d) neurologic disorders (Continue perniciousanemiaas, 1078 strokeas, 1079-1081 Wernicke
Korsakoffsy'ndromeas, 1078- r079 nutrition support, 1077-1078 site of brain for and impairmentin, 1073t with nonnutritional etiologies, 1081-1082 adrenomyeloleukodystrophy as, 1081-1082 adrenomyeloleukodystrophy as, 1082-1084 disease Alzheimer's as, 1084-1087. Half of all new HfV infections are in people ages 13 to 24 years. "If you were 100% successfuland things
worked out exacdy as you would like, what would be different?" . Once this has been established over a period ofhours, the parenteral rate can be decreased to keep insulin in checlg which is blamed for fat storage. Is this how you are feelins?" A sk
n g0 p e n - E n d eQdu e s t i o n s Open-ended questions allow the patient to expressa wider range of ideas. Vegetarians who consume no dairy producs may have low calcium intakes, and vitamin D intakes may be inadequate among those in northern latitudes where there is less exposure to sunshine (see Foaa Oz: Sunshine, \4tamin D, and
Fortification in Chapter 3). {oot caries is a dental infectious diseasethat is increasing in older adults, partly becausethis population is retaining their natural teeth longer. In addition, at-risk patients need to be encouraged to include sources of EFfu (e.g., canola, flaxseed, soybean, or corn oil, or fish) as paft of their daily fat intake. Herbert V et al: Low
holotranscobalamin is the earliestserum marker for subnormalvitamin B12(cobalamin)absorptionin patient with AIDS, Am J Hematol34:132,1990. In critically ill patients tube migration can take several days, causing feeding delays. Topical fluorides, availableas fluoridated toothpaste and mouthwashes, are effective sources of fluoride that can be used
in the home, school, or dental office. 632 PART4 i Nutrition for Healthand Fitness Two examples of these drugs in the marketplace are tamoxifen and raloxifene. The major source of dietary iodine in the United States is "iodized" salt, which has been fonified with iodine. Incalzi RA et al: Correlates ofosteoporosis in chronic obstructive pulmonary
disease, RespirMed 94:1079, 2000. fat intake and risk of breastcancer, Cho E et al: Premenopausal Inst 95:1079, 2003. Volumetrics, a program in this category focuses on the energy density offoods. Complications of colonic irrigation include electroly'te imbalance, toxic colitis, bowel perforation, and sepsis. Most regimens promote "natural" and
"organic" foods and recommend restriction of animal products, refined flours and sugars, and foods that are processedor contain artificial ingredients. Notably, "fat-free" snack and dessert items and "baked" chips and snack crackers tend to have a higher simple sugar concentration than their higher fat-containing counterparts. A piece of cheese at the
end of Breakfast:11/zcupstoastedoatcereal+ 1 cup low {at milk or 2 slices wheattoastwith1 oz meltedcheese 1 cupfreshberries cotfee+ low {at milk BRUSHTEETH Lunch: 2 slices of mushroom pizza small salad with 2 Tbs ltalian dressing 16 oz springwater banana FOLLOW WITH 2 PIECESXYLITOLGUM Afternoon snack: 1 cup pretzels+ 1 oz cheese
FOLLOWWITH2 PIECESXYLTTOL GUII Dinner: tossed salad with 2 Tbs grated cheese 11/zcups spaghetli + 1 cup marinarasalEe + 1/2cup saldeed peppers 1 cup fresh fruit salad 1 slice ltalian bread with 1 pat margarine 1/zcup ice cream 1 cup low-fat milk PnEVENTTvE Cnns Caries prevention programs focus on a balanced diet, modification of the
sources and quantities of fermentable carbohydrates, and the integration of oral hygiene prac- Snack: 4 cupspopcorn BRUSHTEETHBEFOREBEO FIGURE 25-3 A balanceddiet plan with low cariogenic isk. The estimated average requirement (EAR) is the average requirement for healthy individuals; a functional or clinical assessment has
been conducted, and measuresof adequaryhavebeen made at a specifiedlevel of dietary intake. Small, frequent meals followed by rinsing with lukewarm water or brushing to reduce the risk of dental caries are helpfirl. intolerance Glucose Insulin resistance Hyperlipidemia Hypertension . He J et al: Long-term effects of weight loss and dietary sodium
reductionon incidenceof hlpenension, Hypertension 35:544, 2000. Parenteral nutrition should be used in patients who are or will become malnourished and who do not have sufficient gastrointestinal function to be able to restore or maintain optimal nutritional status (Matareseand Gottschlich, 2002). For example, "augmented" care (dietary and
exercise advice, prescriptions, and three dietary recalls every 6 months) seems to promote better long-term results than traditional care (I-ogue et al., 2005). Claims are that chitosan pertension, and thyroid conditions. Fat pads on the palms and buttocks protect the bones from mechanical pressure. cancerin Asian-Americans, Carcino genesis Wimder
Metlylenetetrahydrofolatereductasemutation (677 C-+T) negativelyinfluencesplasmahomocysteine responseto marginalfolate intake in elderlywomen' Metabolivn 49:1 440,2000a. 22. The relationshipbetweennutrition and dental diseasehas long been recognized. In more recent decades the possibility of reducing the incidence of osteoporosis by
emphasizing appropriate nutrition has accumulated supports the awareness of diet in disease prevention. Past research tas determined that the diet is deficient in calcium and vitamin 812. Further research s needed to
study the efficary of this diet in cancer therapy (Kushi et a1.,2001). What additional questionswould you askregarding Ellen's supplements? The use of carbohydrates (100 g daily for a 70kg person) ensures that protein is not catabolized for energy during conditions of normal metabolism. Aerobic exercise is important for cardiovascular health, as well
as for the calorie expenditure and creation ofan energy deficit and therefore fat loss. Geneshave a common structure, with a promoterregion where the binding of the RNA polymerasetranscribesthe DNA into mRNA. Nutrition
assessmentand therapy also must take into account routinely prescribed medications. The convalescent period following a tonsillectomy is short. Tiemendous advancements advancements advancements advancements advancements advancements advancement pulmonary qfst medical, zurgical, and nutritional technology, and pharmacology, and pharmacology and pharma
administration of high-dose chemotherapy. In some cases the use of mobilized stem cell progenitors has replaced autologous bone marrow as the source of hematopoietic progenitors for transplantation. Lipid Commercially availablestandard solutions are composed of all the essential amino acids and only some of the nonessential crystalline amino
acids. Beyer, MS, RD, LD, 2006. Orlistat inhibits gastrointestinal lipase, which reduces approximately one third the amount of fat that is absorbed from food. The nutritional implications of the of breathing. For example, protein and iron deficiencies medicationsneed to be appreciated. Jal q8noqrly'sesse]xe tou 1E -8lu Ernp ew ue3^{leq uonrelloJ Poolq
PuolPuaq lEJnpqns s8 seIJ leuorlrJtnu uro{ Jo uorlJes snordeJ0eqt w peqrJJSOP -uerJgap urBJq erp Jo essq 3tp l? N u t r i t i o nS u p p o r t Patients with acute and chronic neurologic diseasesmav benefit from nutrition support. 'vt&aJV 'sFelu eAFJeJIfee^Jes:e^rlEeJJeq ol ur?r8ord earnd e plnq pue elduls uers 'e€eqdsdp qr1.t esorlt
JoJeJuerJedxel:osues erIJe^{\circ}Jdrurol seePleluos eJe a-re11'poo8 etser puB 'poo8 larus 'poo8 4001ol Peeusleelu peernd 'sesueseqJJo IIe qrvtr pe, {o[uesI PooJ 'uoB8rePlsuor puB eftr erlxe serrnbere^{\circ}eqdsdp tPllr\ slenPl^{\circ}lPulSuIPaeJ ecueldeccv Fu;nodul rcl senblutlcel :o^{\circ}rl lled ,rolle. {\s elarr{Jeot elqeun.ro g8noc IeuoFIIo^{\circ} IeuonolmJuou
lseouelsrsuoceJoruJo o./nlqrltt uoDerrdseluells . ell is a 27-year-old white woman who follows traditional Judaism. Infans born with meconium ileus have the diagnosis of probable CF until ruled out from otler causes. About 850/oto 90% of persons with CF have pancreatic insufficienry. MONBIDITYAND MonTALITY Although hlpertensive patienrs are
often asymptomatic, hypertension is not a benign disease. Cardiac, cerebrovas- cular, and renal systems are affected by chronically prepared are an alternative to standard formulas, but maintenance of aseptic technique is essential to prevent
bacterial contamination. These continue to be monitored and updated as strategies are implemented to reach the objectives (Healthy People 2010, 2004a). Despite public health recommendations to increase activity levels, 40% of Hispanic females, 34"/" of American Indian and Alaskan Native females, and 22Y" of white females
reported no leisure-time physical acrivity in the Behavioral Risk Factor Surveillance System survey (BRFSS, 2007). Adverse events, s). Triptoms Educate. Although home nutrition support has been available for over 20 years, few outcome data have been generated. Because mandatory reporting requirements do not exist in the United Statesfor patients.
receiving home nutrition support, the exact number of patients receiving home nutrition support is unknown. However, individuals with preexisting medical conditions or treatment-related side effects (e.g., radiation enteritis, malabsorption) may be nefit from elemental or peptide-based formulas (see Chapter 20). The oxalatecontent of a typical diet is
in the range of 44 to 350 mg/day, but it can be as high as 1980 mg/day in vegetarian diets (Holmes and Kennedy, 2000). Ways to expressthese ideas to clients are: o "You are working very hard at this, and it's clear that you're the expert about what is best for you. Urine--4) ontains a concentrate of excreted metabolires, Feces-Important in nutritional
analyseswhen nutrients are not absorbed and therefore are present in fecal material. te dS JeIssaW tqSre.tr.ra,to 't002'I:0s unaqf,sxurquu^Pnrs r{rl?eHs(ueruor!\e,&olaql tuo{ sllnseJ:sDIJIprBProlBlunetl], {lesre,rursr e{Blur c ullu?ll :lEle v-I oull]atr{ qtr/f\pet?rJosse '2002'Itg papyruautafiuo3u,a4V 'snrrr.prBproteuneqr qrl.A{ f ucefqnsur ]erp
uu8a,t'te1-.to1/:aa e;o speJJE:p ta I pEnogrly '0002's5t:' u1u4f mg'.{pnrs palonuoe-oqeceld'puqq-alqnop'pazruropuer E :snrllueoalso 1ryuredur etBrtrurrt1ftec{8 dq pecuequa sr ureresdeo aI{J :C eueal3cry lecrdor;o 'lcecglecrsaEleue 's002 'g: 'stuarudola,rap tuaJeJ:snrlpJ?oelso 71 plarunaqyuldg *tn3 pue srotJq leuortrrnN :yg ae8Erg'ga uopurlycl,g ' 5
002' tZ eunf pessecrt'urol'cruqcodelu'^\,{vrr 'euorpuis .ger5 cruq3 odeyg rruorr{J ruo4 to.elr.re.ro anSpe; '5967pessacce '3.ro 'l8oloreurnaqr' 'satparuay \^rr!{ pqraH:C snJJeW ruo{ p.rntoN pua c . The \ILCD that first became popular in the early 1970s resulted in several deaths; however, improved formulation with respect to protein quality has led
to their acceptability and safety for those whose obesity is potentially life-threatening. Lamb (mutton), goat, game, and poultry are more common than pork or beef. Bazzano LA et al: Dietary potassium intake and risk of stroke in U.S. men and women: National Health and Nutrition Examination Survey I epidemiologic follow-up study, Srrola
32:1471,2001. Foods can be cooked to a softer consistency, and meats and vegetables can be cut across the fibers into bitesize pieces to make eating easier. Design a set (3 days' minimum) of daily menus that provide a rotel of ll00 mg, rhe
current adequate intake for calcium. Dietary oxalate affects urinary oxalate because oxalate cannot be metabolized in the body and the renal route is the only mode of excretion. IlichJZ, KerstetterJE: Nutrition in bone health revisited: a story beyond calci:um, J Am CollNutr l9:715, 2000. IJrease allows the generation of ammonia to facilitate
starting parenteral nutrition who have received no form of nutrition for a significant period should be monitored for electrolyte fluctuation and fluid overload. Other inflammatory states children (Blum et al., 2005). Body massindex (BMI) is moderately correlated (r: 0.5) to
CRP levels (Rawson et al., 2003). The cells' adherence to these base-pairingrules ensures that the new strand is an exact copy of the old one. Women who smoke about one pack of cigarettes daily will have a deficit in bone density, which increases the risk of fracture. Bone RC: Toward an epidemiology and natural history of SIRS
(systemicinflammatoryresponsesyndrome), ft MA 268:3452, 1992. Tieatment options include: . The causesof ARF are numerous, and often severaloccur simultaneously (Box 36-1). Nutrition can mitigate the harmful effects of many genetic errors that result in disease, from supplying missing metabolites to altering gene expression. See Excess
postexerclse oxygen consumptron EPO (erythropoiedn) as muscle-building supplements, 6 I 0 definition, 92 I production, 92 I p
therapy), definition, 614 erythropoietin (EPO) as muscle-building supplements, 610 definition, 92 1 production of, 923 ESADDI (estimated safe and adequate daily dietary intakes), 339 definicion, 337 Escherichia coli @ coli) 0157:H7, 327t enterohemorrh agqc, 327t enterohemorrh agqc, 327t enterotoxigenic, 326t in GI tract, 14 ES @leutherococcus senticlsas), ergogenic aid, 604t
esophageal phase, of swallowing, 1074, 1075f esophageal reflux, s1'rnptoms/nutritional consequences,655t esophageal stmcture, syrnptoms/nutritional definition, 739 elemental diet, usage,751 medical management,656, 658 medical nutrition therapy,
658-659 pathophysiology, 65 5 -656, 657b prevalence, 655-656 reduction, nutrition care guidelines, 658b surgical management, 656, 658 esophagus Barrett's, definition, 654 cancer of, syrnptoms/nutritional consequences, 655 disorders, 65 5 -660 complicating HIV disease, 1015 infl ammation. Recentfindings in the United Statesof an industrial
dietary supplementation as,47 5-485. factors (i.e., the risk of CHD is much higher with multiple risk factors) and direcdy influences acute coronary events, including *rombus formation, plaque instability, and arrhythmias. Disease-associatedrisks of fluoride are unfounded' No epidemiologic studies have demonstrated any link between fluoride and
cancer or AIDS. 2r i WeightManagement553 CHAPTER Postoperativefollow-up includes evaluation at regular intervalsby the surgicalteam and a registereddietitian. pasgeJour 'sso1lq8re,r. Excretewasteproducts . If it is difficult to get the recommended amounts of calcium and vitamin D from foods, a combination of food sources and supplements is
chromosomes, called autosomes, and 2 sex chromosomes, for a total of 46 chromosomes. Tieatment typically involves the use of two or three antibiotics and acid-suppressing medications. Avoiding NSAIDs and large doses of corticosteroids is also beneficial. Generally insoluble fibers such as cellulose increase the water-holding capacity of undigested
material and lead to increasedfecal volume (bulk) and decreased GI transit time (increased time and slowed or decreased nutrient absorption). On the other hand, soluble fibers can form gels, resulting in slowed GI transit time (increased fibers can form gels, resulting in slowed or decreased nutrient absorption). On the other hand, soluble fibers can form gels, resulting in slowed GI transit time (increased fibers can form gels, resulting in slowed GI transit time).
Adequacy of calories, protein, and micronutrients should be ensured. Malnurition itself can produce neuromuscular weaknessthat affects quality of life; it is a prognostic factor for poor survival. Omega-3 fatty acids have been included in diseasespecific formulas because of their modulating effect on immune function. Genomics 381 Nutritional 13!
Assessment: CHAPTER Davis CD, Hord NG: Nurritional "omics" technologies for elucidating the role(s) of bioactive food components in colon cancer preventron, J Nu* 135:2694,2005. Orlistat, a non-CNS-acting agent, does not suppress the appetite. Supportself-efficacy Each of thesestepsis described further detail in the following sections. Ninery
five percent of the world's casesof HII including those causedby perinatal HfV uansmission, are in the developingnations (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes causedby perinatal HfV uansmission, are in the developingnations (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes causedby perinatal HfV uansmission, are in the developingnations (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes causedby perinatal HfV uansmission, are in the developingnations (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes causedby perinatal HfV uansmission, are in the developingnations (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes causedby perinatal HfV uansmission, are in the developingnations (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes caused by the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic slmdromes (see Figure 38-4) (AVERT, 2006b). Pernic outside under the more common neurologic
dietary sources, sunlight can provide the body with vitamin D becauseit is synthesized through the skin. Il, I Nutritionin the Community 333 CHAPTER lance. Other good dietary sources of this mineral include peanuts, whole wheat flour, oat flour, beet greens, spinach, pistachio nuts, shredded wheat, bran cereals, oatmeal, bananas, baked potatoes
 (with skin), chocolate, and cocoa powder. S u r q i c aPl r o c e d u r e s Bariatricsurgeryis an acceptedform of rreatmentfor extreme or classIII obesitywith a BMI of 40 or greater, or a BMI of 35 or greaterwith comorbidities (NIH, 2000). The short procedural time required for insertion, limited need for anesthesia, and minimum wound
complicationsalsomakeit preferable for the physicianand otherscaring for the patient. It is possible to converta PEG to a gastrojejunostomy by threading a small bore tube through the PEG tube into the jejunum using either fluoroscopyor endoscopy. The National Center for Complementary and classifies CAM into five Alternative Medicine NCCAM)
major domains with examples: . The researcherssuggest and rotation of tube-feeding placement be used that avoid such contact. Malnutrition . The question is: Does a low glycemic index diet have any effect on healthy individuals receiving adequate amounts of dietary fiber? Protocols for dressing changes and rotation of the site are used to prevent
the principal complication of peripheral cathetersthrombophlebitis. In general, the protein source in the formula or medical food is r.-amino acids, with the critical amino acid (i.e., Phe) omitted. Dietary fat helps to provide the requiredenerry, EFfu (i.e., linoleic acid and linolenic acid), and fat-solublevitamins. Moreover, fat limits the volume of food
required to meet energy demands and improves the palatability of the diet. Box 20-1 summarizes the factors to .oniid.. At high risk are health careworkers; residents in assisted living facilities, skilled nursing homes, or hospitals; and people who are immunocompromised such as those with cancer, chronic renal disease, or human immunodeficiency
virus(seeChapters36 through 38). Tirberclebacilliincreasingly are becoming resistantto drug therapy; strainswith increasedvirulence haveemerged. Signs and hemoptysis (Campbelland Bah-Sow, 2006). The predominant relevance include undernutrition, weight loss, night sweats, facigree, dyspnea, and hemoptysis (Campbelland Bah-Sow, 2006). The predominant relevance include undernutrition, weight loss, night sweats, facigree, dyspnea, and hemoptysis (Campbelland Bah-Sow, 2006). The predominant relevance include undernutrition and relevance include undernutrition.
sugar is used to name the hemicellulose (e.g., rylan, galactan' mannan, arabinose, galactose). Most experts advise that oral diets initially be low fat, lactose free, and low in other simple carbohydrate. For many patients using orygen at mealtimes, eating slowly, chewing foods well, and engaging in social interaction all can enhance food intake,
nutrient metabolism, and enjoyment of the experience. It should be started slowly at half of an 8-oz canfour to six times a day. The DV for potassium is 3500 mg. Because bones are repositories of fluoride, bone meal, fish meal, and gelatin made from bones are potent sources of the mineral. Few dietary factors can be consistently incriminated in the
cause or exacerbation of gastritis or peptic ulcer disease. ThakoreJN et al: Percutaneousendoscopicgastrostomy 37:307, with gastricmetastasis, associated 7 Clin Gastroenterol 2003. The caloric content of amino acid solutions is approximately 4kcal/gof prorein provided. A single food canvary twofold to fifteenfold in its oxalate content, depending on
the variegt, growth conditions, and season. Only limited data on food oxalate content are available because of inconsistent methodologies used for analysis. For PKU dietary therapy is planned around the use of a formula/medical food with Phe removed from the protein. Diffrrsed senseof self Origin and Influences on Thinking and Beliefs o Gender, race,
cultural scrips and expectations. Calcium plus calcitriol may be useful, however, in patiens who are taking high-dosecorricosteroid therapy, during which vertebralfractures are common. The following questions about feelings toward change: . Boneresorption markers present Estrogen replacement (e.9., alendronate)
Biphosphonates (e.9., SERMs raloxifene, tamoxifen) IntermittentPTHtherapy Calcitonin Education aboutprevention offalls Inereased: .1,25(OH)zvitamin D3 . .Physical activity level (PAL) is the physical activity level that is the ratio of the total energy expenditure (FEE) to the basalenergy expenditure (BEE). If given in the boale, keep the bottle in the
dark and at room temperature. Therefore selenium deficiency is often reported in these regions. American Dietetic Association: Position of The American Dietetic Association: Position Diete
Decreased thermic effect of food after an irregular compared with a regularmeal pattern in healthylean women, Int J Obes Relnt Metabol Disord 28:653,2004. Infusion therapy companies deliver medications, equipment, and services for people who need intravenous or nutritional therapies. Once the heart is diseased, conditions such as myocardial infarction
(Mf;, blockagein a coronary artery that can lead to heart damage or "heart attack," dieury sodium excess, medicationnoncompliance, arrhythmias, pulmonaryembolism, infection, and anemiacan precipitate HE The prognosis for HF depends on the causative factors and the individual sresponse to treaffnent. Overall 800/oof men and 70% of women under the
age of 65 years who are diagnosed with HF will die within 8 years (fhom et al., 2006). Charles Mueller, PhD, RD, CNSD, CDN Abby S. Lee is originally from mainland China. Norr: Takeone multivitamin/multimineral L302 APPENDIXES A potassium-rich diet is useful for cardiac patients who are tr)nng to lower their blood pressure using diet. USeFUL
WessrrEs American Dental Association American Dental Hygienists Association American Academy of Periodontology Colgate Kids http://www.colgate.com./app/Col gate US/ O C/ Information4nteractiveGuides/EveryAge. 11 H' bo q d 'o tr 3 cl A q -, v d Er k (.) bo ,^bo E o o € .E q a a @ si r F] - f' I B N O o o t s d A o q (ts, o t= CHAPTER 19 |
Intervention: Counseling for Change493 Gompetencies for Effective InterculturalGounseling Respect for the client Genuineness Empathic understanding Having trust in the client and his or her capability of making choicesand decisions, and solving problems The counselor is a real person, not an all-knowing, objective expert The ability to convey
empathy in a culturally consistent and meaning firl communication til T"" io." s of empathy, respect and genuineness to the client Structuring must be feet two the client structuring must be feet to be effective. The counselor should be an indication of what, how, and why he or she
intends to do the proposed interaction or program and increased physical activity; self-monitoring; stimulus control; relapse management; and ongoing support (Costain and Croker, 2005). Nus, which do not contain a significant amount of fermentable carbohydrates and are high in fat and dietary fiber, are cariostatic. KrishnanJA: Caloric intake in
medical ICU patiens: consistency of care with guidelines and relationship to clinical outcomes, Cbest 124:297.2001. Miller ER III et al: The effects of macronutrients on blood pressure and lipids: an overview of the DASH and Omni Heart Trials, Curr Atha.osclerRep8:460,2006. These catheters can remain at the orisinal site for 3 to 6 weeks and have
made PPN a more feasible option in patients with veins large enough to tolerate the catheter (Krz5zwdaet al., 2005). fu the details of the connections among genes, their protein products, and diseaseunfold, the focus of the health care system is shifting. futhmatic q/mptoms may be aggravated by allergen exposure, including foods such as shrimp or
food additives such as sulfites (see Chapter 29); and botanicals such as citronella in insect repellents, rusty-leafed rhododendron in natural honeys, and strawberry leaf in herbal teas (see Chapter 18). After transplantation, patients are susceptible to steroid-induced osteoporosis. CHAPTER 21 I WeightManagement 555 DietProgression after
GastricBypass Diet Will Progress From: TypicalProgressIon Clear liquids No more than 1/zcup total Full liquids Gradually increaseftomr/zcup to no more than 1 cup total; meat should be no more than 2 oz Pureed Regular (small meals and snacks) However, the
typicalpicture is one of recidivism. Continued dieting, with repeatedups and downs, leadsgraduallyto a net increase in body fat and thus to a health risk for hlperlipidemia, hypertension, and diabetes. pylori Slattem et a1., 2005). Thomas tolerated this initial enteral regimen but demonstrated abdominal distention and pain *hen anempm were Nutrition
Diagnosis 3: Altered GI function related to intolerance offormula as evidenced by diarrhea l. Precautions for Persons WithType2 Diabetes Persons with type 2 diabetes may have a lower Vo2-o and therefore need a more gradual training program. Bubalo J et al: Relieving patients' fear of chemotherapy-induced nauseaand vomiting, US Phanzt 29:1,2004
Wernicke-Korsakoff Syndrome Wernicke-Korsakoff syndrome (WKS) is a disease of the cerebellumand brainstemthat results from chronic thiamin deficiency with continued carbohydrateingestion. WKS is a disease of the cerebellumand brainstemthat results from chronic thiamin deficiency with continued carbohydrateingestion. WKS is a disease of the cerebellumand brainstemthat results from chronic thiamin deficiency with continued carbohydrateingestion. WKS is a disease of the cerebellumand brainstemthat results from chronic thiamin deficiency with continued carbohydrateingestion.
with characteristic memorydefects. For best possible outcomes, medical nutrition therapy for all persons with pulmonary problems requires attention to the individual's nutrition attention at the individual attention at
Cancer 85:1667,2001. Friedman M: Chemistry biochemistry and safety of acrylamide: areview, J Agric FoodChem 51:4504,2003. His initial laboratory work included a BIIN of 2 mg/dl, rn albumin of 3.5 g/dl, and serum triglyceridesof 65 mg/dl. Indirect calorimetry resring revealed a resting energy expenditure of 1460kcaUday. His respiratory quotient
(Re) was 0.72. govlnchs/hphome.htm. However, importandy, the ratio of LDL to HDL cholesterol is not adversely affected. 6 oz veg. Tirbe placement is verified by aspirating gastric contents in combination with auscultation of the tube tip location. "There are a number of things you could
do, but what do you think will work best for you?" 502 PART 3 I NutritionCareProcess ResrsANCE BenAvroRs AND POTENTIALSTNATEGIES TO MooIFY THEM Irrespective of concerted efforts toward assessingreadiness to change and affirming action and supporting change, the nutrition counselor will still be confronted with resistance
behaviors. Resistance to change is the most consistent emotion or state that will be faced when dealing with clients who have difficulty with dietary adherence. govlPubMed Ame r i c a So n c i e tyfo r C l i n i caN l u tri ti o n htrp://wr.vw.faseb.orglas cn for Disease Centers Control and Prevention Foodand Nutrition Board, IOM http
://vvw.nationalacademies. sJoruerJ lcay8eu ro 'uorsryuoJ 'BrxBJdB 'ersdouenueg 'Suruorlrs -od ,(poq rood 'sseu>1ee, {L qrurTJo esneJeqJlasrer{ ro Jlestuq PeeJot elqBun eq dru eseesrPcr3010rneu tpl^l luaped aqJ qlnot/|aql 0l p00J lo : sa n s s 6ul l paal u 0 r lE lu a sa Jd lpuapuadepurpeurctqolueuqsrJnou urelureruo] de,n e sr pe8rrnoJua eq uec
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tjelur 'gcaedspg&urueeurarnpord or &ilq?ul lero qSnoqr uazre tuase:d tou eJBuoEturpJooJur pue 'frrcnseds'ssoy&osues 'srsdpred rnq ,(rreqc e uog Sursrr '8un1p,r.''3'e) lser poureel dlsnor,la.rde uro;red or lrrgqeul '(7-gg arnSrgaas)'cle ,ale1d ot1rJoJIBr{ dluo urog slee 'e8edBJoJleriauo speertuened, {poq eqigo ep$ teqr srcal8eutuen?d selJsnu
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within the nucleus, the processes of meiosis and mitosis, autosomal and sex-linked inheritance, linkage and the mapping of genes, and chromosomal mutation is encoded in DNA and must be decoded and converted into proteins that do the work of the
cells through the processes of transcription, post-transcription, post-transcriptional 13 I Assessment: CHAPTER DNA, The Molecule of Life Trillions of cells Eachcell: .46 human cnromosomes .2 metersof DNA . ChawlaA et al: Nuclear receptors and lipid physiology: opening tle X-files, Science 294:1866,2001. SallisJF et al: The
Caltrac accelerometerasa physicalactivity monitor for school-agechildren, Med SeiSpomExerc22:698, 1989. A caloric deficit of 500 to 1000 kcal daily usually meets this goal. Arrangements for follow-up contact can be made at this time. There are no positive effects (Guercaffeine-containing herbs (kola nut, g'uarana, and mat), ma ciolini et al., 2001).
Prevention is the key, because once fat is gained and B on e. Examples of drugs with potential nutritional implications are bronchodilators, expectorants, and corticosteroids (see Chapter 16). for Hypertension869 CHAPTER 33: MedicalNutritionTherapy PnrHoPHYsroLocy Blood pressure is a function of cardiac output multiplied by peripheral
resistance(the resistancein the blood vessels to the flow of blood). They can be either low-profile (flat to the abdomen and into the stomach. TiabulsiJ et al: Evaluation formulasfor calculating total children with cystic energy requirements of preadolescent
fibrosis, Arn J Clin Nut 85:144,2007. Limit bedtime snacks. In persons with diabetes, light-to-moderate amounts of alcohol (1 to 2 drinks per day; 15 to 30 g ofalcohol) are associated with a decreased risk of coronary heart disease (Howard et al., 2004), perhaps because of the concomitant increase in HDL cholesterol and improved insulin sensitivity
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factors, coupled with knowledge of underlying disease processes of individuals and directing nutrition therapy in such a way that to volume overload, which must also be controlled mainly by dialysis during renal failure. Nutritional genomics provides the basis for analyzing the genogees of individuals and directing nutrition therapy in such a way that
it protects against cancer by augmenting endogenous detoxification activity. interventions. (For excellentreviews of nutritional genomics Data from the Framingham Studyprovide an example of applications to cardiovascular disease, see Corella and Ordohow knowing the client's genetic variants can be helpful in vas, 2005; Ordovas and Mooser, 2004.)
developing effective nutritional intervenrions (Marin et al., Immune 2002; Ordovaset al., 2002a). The APOA-I senecodes for Health and Cancer apolipoprotein fibr- (see ChapMuch ongoing research, including that conducted at the ters 15 and 32 for a discussion of this laboratory assess- National Cancer Institute, relates to gene-
dietinteractions ment). It is approved for use in adults with type I or type 2 diabetes who have not achieved optimal glucosecontrol (Buse et a1.,2002). Reductions in blood pressure 780 PART5 I MedicalNutritionTherapy and improvements in impaired fibrinolysis have also been noted (Sigalet al.,2004). Fruit juices and drinks' particularly white grape
juice produced in cities with fluoridated watet may have increased fluoride content; however, because of the wide variation in fluoride content it is difficult to estimate amounts consumed. Meals and snacks should be followed with brushing, rinsing the mouth vigorously with water, or chewing sugarless gum for 15 to 20 minutes. Weir JB: New
methods of calculating metabolic act and pork products such as gelatin are pro- hibited, as are alcoholic beverages and alcohol products (e.g., vanilla extract or act of the products such as gelatin are pro- hibited, as are alcoholic beverages and alcohol products (e.g., vanilla extract or act of the products such as gelatin are pro- hibited, as are alcoholic beverages and alcohol products (e.g., vanilla extract or act of the products such as gelatin are pro- hibited, as are alcoholic beverages and alcohol products (e.g., vanilla extract or act of the products such as gelatin are pro- hibited, as are alcoholic beverages and alcohol products (e.g., vanilla extract or act of the products such as gelatin are pro- hibited, as are alcoholic beverages and alcohol products (e.g., vanilla extract or act of the products such as gelatin are pro- hibited, as are alcoholic beverages and alcohol products (e.g., vanilla extract or act of the products such as gelatin are pro- hibited, as are alcoholic beverages and alcohol products (e.g., vanilla extract or act of the products of the products of the products of the products are pro- hibited, as are alcoholic beverages and alcohol products (e.g., vanilla extract or act of the products of the 
other alcohol-based food or flavoring extracts). 1967-1980: Collaborative Study of Children Tieated for Phenylketonuria is conducted. Three deaths have focused on preventing or limiting conditions leading to hypotension and ischemia and coagulopathies.
Adequate levels of exercise and physical activity to achieve this appear to be 60 to 90 minutes daily, which is recommended by the USDA This is also the amount of activity repofted by those in the National Weight Control Registry 6rWCR) who have kept offat least 10% of their weight for at least a year. However, its safety is still uncertain Q. {orris et
al., 2005). However, most affected individuals admit that avoiding foods in the evening reduces their symptoms. com http://www.ncanet.org http://www.ncane
editors, Handbook ofpediatricnuritiln, ed 3, Sudbury Mass, 2005, Jonesand Bartlett. All equations have been developed to maintain current body weight (and promote growth when appropriate) and current body weight (and promote growth when appropriate) and current body weight (and promote weight loss (Institute of Medicine, 2002; 2005). qi.l q Hv
I I t & 'Eqe. ^{\circ} 9 q o ET&EI EE a U 6I 9 @ F- 6l $ r\ a.l sx o t! g E EEfiE nE $EEE; *s&EE$EEE (h(h(hv N'')qq Fr Gl @ rf, v AI a- r- rr r\ r\ A N 6lm +vi 66 \oFoo 6-: = F-6 i:i x q 6l a.l {- o a { a.l -i r.l o\ t\ o.i @ o' Gl + o @rO\ +N+ ri\Ot .1 C.l \o Gl @ + oo a.l r- Ot-+ 6a.tO F- oo r- S is ER 'E E\o 6r-r-qlrr iri \o dr! p (, F8 = 9 = E g t . In addition to forming
 isomers,monosaccharides (both those with aldehydegroups such as glucoseand galactose and thosewith ketone groupssuchasfructose) alsoryclize, forming ring structuresthat give rise to further isomers. CHAPTER24 i Nutrition and Bone Health 631 The Impact of Alcohol and Cigarette Smoking on the Skeleton-a Double Whammv!! /1 iga.ette smoking
is a risk factor for veftebral, forearm, U and hip fractures, especiallyin slender women. It addresses threats against forearm, U and hip fractures for Food SafetyAnd Applied Nutrition (CFSANI) Food and Drug
Administrarion CFSCAN-Food and Water Safety, Iowa State University Foundation for Food Marketing Institute Food Marketing
Government Food SafetyInformation Gateway Grocery Manufacturers of America International Food Information Council National Food Safety Database National Restaurant Food Safety Database National Food Safety Education
ProduceMarketing Association PulseNet U.S. Department of Agriculture U.S. Department of Agriculture Food Safety and Inspection Agenry @PA) Office of Ground and Drinking Water U.S. Environmental Protection Agenry (EPA)
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encephalopathy, 723. cfrn?cat:1034,accessed Hildreth MA et al: Caloric needsof adolescentpatientswith brrns, J Burn CareRebabil10:523,1989. Metformin (Glucophage) suppresseshepatic glucose production and lowers insulin resistance, but it does not stimulate insulin secretion. In omega notation a lower case omega (a) or n is used to refer to the
placement of the first double bond counting from the methyl end (referred to as the fatty acid's omega number). Garner, PhD, 2002. The use of nutrition support and hydration in individuals with advanced, incurable cancer is a difficult and often controversial issue and should be determined on a case-by-casebasis (Stagnoet al., 2000). However,
alcoholic beverages should be considered an addition to the regular food and meal plan for all persons with diabetes. 26(1):67-73, 2004. Approximately 20% of all males were inactive. The incidence of CHD is high; 700,000 Americans had a new coronary attack and 500,000 had a recurrent attack in 2000. ss: 15&docid: 2961&nbr:2187#s23
References AlexanderJW: Nutritional pharmacology in surgical paients, Am J Surg183:149,2002. On the other hand, beers and wines significandy increase gastric secretions and should be avoided in qrmptomatic disease. coli, and Shigella. These pathogens, along with potential 11 I Nutritionin the Gommunity33L CHAPTER Is It ReallyOrganicand Is It
Healthier? LivingstoneMBE: Assessment of food inrake: arewe measuring what people eat?Br J BiamedSci52:58,1995. Why would you recommend foods to provide calcium rather than supplements? Reprintedwith permission.) standards of quality, product safety, or activity of ingredients. Medical and surgical treatment approaches for persons with
COPD are codified and periodically updated based on the latest basic and clinical research (GOLD, 2005). See Chapter 14 for details on dietary assessment. A few questions used to assesscurrent eating behavior follow. OralCavityCancerandSurgery Pathophysiology The patient diagnosed with cancer of the oral cavity, pharynx, or esophagus may
present with existing nutritional problems and eating difficulties caused by the tumor mass, obstruction. have also been implicated. Becauseweight loss can help lower blood pressure, it is often suggested. CassilethBR, \4ckers AJ: Complementaryand alternative therapies, Urol Clin North Am 30:369,2003. Genton L et al: Enteral feeding preserves gur
Th-2 cytokines despite mucosal cellular adhesionmolecule-l blockade, JPE f J ParenterEnteral Nurr 29(1):44, 2005. essentialtal ......12yo -.- 3"/" reached. In the United States meats, bread, and Brazil nuts are common sources of dietary selenium. Pathophysiology DenrAl Gnnres Dental caries is one of the most common infectious
diseases. According to the Surgeon General's 2000 Report on Oral Health, dental caries is seven times more common than hay fever and five times more common than have fever and five 
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carbohydrate and be given adequate amounts of intracellular electrolytes. If bolus feeding is a second option. American Sociery for Parenteral and Enteral Nutrition: Guidelines for the use ofparenteral and enteral nutrition in adult and pediauic patients: ethical and legal issues, JPENJ Parenter Enteral Nutr 26:5 65
2002a. lentcellerq Jo 'erlueruape,rrssa-r8ord e ur tlnsal CMo suorlelseJruttrt 'surordur, {s reqro duedruorcederussolrq5rarnpue tor -^?qaqSupeeparap:osrp'ecuapuedepurJo ssoly ruaufpn( 'uorsrguocol pe.rrrdrurpuu 'se8ueqcror^er {aqpuedrrleuos-rad l.{1pnper8suFaq ([V'/06I ul sprey pue lsacue,rpe {lunrue^a esuesrp ururqelqeJeue8ep
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test, measureshuman body iron storesunconfoundedby inflammation, Stem Cells 15:291,1997. A high dietary protein intake over a 2-week period has little or no effect on calcium metabolism or bone turnover in healthy adult women (Kerstetter et al., 2005). Once gastric placement is confirmed and if patient has the NSD that are recorded in personnel
files. Understanding the role of nutrition in sports and in optimizing performancehasled to dietary and exercise practicesgenerally applicableto a rewardinglifestyle. What dietary supplements are you taking (type: vitamin, mineral, botanical, amino acid, fiber)? Examples of carbohydrate-restricted diets include Dn Atkins' New Diet Reaolution and Tbe
CarbohydrateAddict's Diet. Techniquesfor placing a rube are describedbyMetheny and Meert (2004). MitsnefesMIVL Hlpertension in children and adolescents, Pediatr Clin North Am 53(3)2493,20f,6. Advanced plaque Normalartery Infarction Years FIGURE 32-2 Natural progression of atherosclerosis. (From HarkreaderH: Fundamentalsof nursing
caring and clinical judgment, Pbiladelphia, 2007, Saantlers.) FIGURE 32-3 Plaqte that can be surgically removed from the coronary arrery. regimen and delivery method. Wenke K: Management of hyperlipidaemiaassociated with heart transplantation, Dtags 64(I 0): I 053, 2004. Would you suggest the DASH diet? lower protein intake usually results in
lower dietary fat becausemany high-protein animal products are also rich in fat (ADA, 1997). Przkora R et al: Beneficial effects ofextended grorth hormone treatment after hospital discharge in pediatric burn patients, Ann Surg243:796,2006. His TPN was slowly discontinued over 2 hours, and on postoperativeday 9 his glucose is now 205 mg/dl, and
his arterial Pco2 has decreased to 38 mg/dl. Client: I want to follow the new eating pattern, but so many things get in the way. Iron exists in foods in two forms: heme iron and nonheme iron. The presence of one essential nutrient may affect the availability absorption, metabolism, or dietary need for others. Another reason why children with
advanced cancer are at a greater risk of severe nutritional depletion than adults is the frequent use of more aggressive, multimodality treatment. However, it has not been prescribed for preventing bone loss. Circulation Marin C et al: Effectsof the human apolipoprotein Merin C et al: Effectsof the human apolipoprotein metaboltsm, Am J Clin Nutr
76:319,2002. If not, why not? Any form of diabetes increases the risk for CHD, with occurrence at younger ages. The clinical courseand outcome dependmainly on the underlying cause. Patients on the teeth as it becomes
severe. Mottling occurs in severefluorosis, which results in pitting in the enamel surfaceof the tooth, weakening it and making it susceptible to decay. General weaknessand especially paresthesia (numbness sensation and heightened sensitivity in the nerve lesions) constitute the earliest and most common symptoms, with tingling or the feeling of "pins
and needles" in hands or feet. Consumption of hard candies, lollipops, and sugared breath mints result in prolonged sugar exposure in the mouth. tices into individual lifestyles (Tinanoff, 2005). Nursj1:127,2006. It is particularly important that dietary supplement use be reviewed before surgery (Ang-Lee et al., 2001). Phenylalanine Block \ 7,8-BH2
'Biopterin synthetase" j Dihydrofolate reductase Tetrahydrobiopterin (BHa) (3) The Phe-free formula and milk mixrure should provide about 90% ofthe protein and 80% ofthe energy neededby infans and toddlers. Treatment Medical Endoscopy is a common procedure used to identify problems (seeFoau On: Endoscopy and Capsules). Tieatment of
gasffitis includes the eradication of pathogenic organisms (e.g., H. Its role in heart disease is not clear, but it may have a preventive role. KadowakiT et al: The role of PPARgammain high-fat dietComplications inducedobesityand insulin resistance, J Diabetes 16:41,2002. Adanta, Georgia; Adjunct fu sistantProfessor Department of Food and Nutrition
 University of Georgia Athens, Georgia phn, RB, LIt, CNgD, FA0A Jeanetts M. Researchers suspect that the metastases may be spread by a direct seeding of tumor cells at the feeding tube-feeding placement (Maccabee and
Sheppard, 2003; Sinclair et al., 2001). Tlansferring HfV from an infected mother to her baby before or during birth or through breast-feeding is a major global concern. If the blood glucose level rises above 180 mg/dl, glucose is spilled into
the urine. Teng Chung I Hinds CJ: teatrnent with GH and IGF-I in criticalillness, Crit CareClin 22:29,2006. Ram FS et al: Vtamin C supplementation for asrhma, Cocbrane DatabaseSystRn, CD000993,2004. Avoid large, high-fat meals. biologicalregulation, ActaPhysiolScand184(4):309,2005. 4 bp, base pairs. D'Andrea GM: Use of antioxidantsduring
chemotherapyand radiotherapyshouldbe avoided, CA Cancer J Clin 55:319, 2005. Atlletes who sweat a gteat deal may also need attention to the potassium in their diet. tClark GH, FraserCG: Biologicalvariation facutephase proteins, Izn Clin Biochm 30:373,1993. "What are some things you would like to discuss about your dietary changes so far?
Arginine has immuneenhancing properties and a role in collagen synthesis and wound healing. Chobanian AV et al: The SeventhReport of the Joint National Committee on Prevention, Evaluation, and Tieatrnent of High Blood Pressure: the Joint National Committee on Prevention, Evaluation, and Tieatrnent of High Blood Pressure: the Joint National Committee on Prevention, Evaluation, Evaluation, and Tieatrnent of High Blood Pressure: the Joint National Committee on Prevention, Evaluation, 
individual adipocytes to some level that signals metabolic adjustment and weight maintenance. DeBuskR-N[et al: Nutritional genomicsin practice:where do we begin?] Am DietAssoc105:589,2005. Such a gene is said to have reduced penetrance, meaning that not everyone who has the gene expresses tin a measurable form. U.S. Department of Health
and Fluman Services:Oral heahhin America:a repor-tof theSurgeonGeneral,Rockville,Md, 2000, U.S. Department of Health and Fluman Services,National Institutes of Dental and CraniofacialResearch,National Institutes of Health and Fluman Services,National Institute of Dental and CraniofacialResearch,National Institutes of Dental and Fluman Services,National Institutes of Health and Fluman Services,National Institutes of Dental Andrew Services,National Insti
{ernpluruoneleued de,tr:ry . Thble 36-1 providesan exampleof a calculation fluid requirements. Because of the numerousfV drugsand blood and blood products exampleof a calculation fluid requirements. Because of the numerousfV drugsand blood and blood products example for RenalDisorders 927 CHAPTER 35 | MedicalNutritionTherapy the challenge in managing patients at this point becomes how to cut fluid intake as much
 aspossiblewhile providing adequateprotein and energy. Some clients will make pessimistic statements about themselves or others. It is difficult to choose foods to maintain this calorie level and meet all nutritional requirements every day. SeeLactation benefits, 185b breastaugmentation, relationship, 192 drugsof, concern, 190-191t, 191 duration, 189
 environmentalagents, relationship, 192t exercise, relationship, 189, 191 failureto thrive, relationship, 191, l93f food and, 192t for infants, I 130 HfV transmissionduring, 1007 preparation, 189 problems, 191, l93f food and, 192t for infants, I 130 HfV transmissionduring, 1007 preparation, 189, 189f bronchitis, chronic, 907 definition, 899
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definition, 39 calcidiol,623 definition, 614 calciferol, 74-7 8. Although gastritis is a characteristic observation, only 10% to 15Y" of those infected by the organism develop symptomatic ulceration, and approximately l"/o develop gastric cancer. Protecting the privary of the individual is of paramount concern. Gillies PI:Nurrigenomics:tle Rubiconof
molecularnutrition, 2003. For example, food and nutrient intakes may be based on retrospective food frequency questionnaires rather than intervention rials. 6 graham cracker squares 2 T peanut butter I c orange juice 2 T raisins 2. Fruits with high water content such as melons have a lower cariogenicity than others such as bananas and dried fruits.
MedicalNutritionTherapy If the patient with oral canceris unable to eat for prolonged periods, nutritional suppoft may be provided by tube feeding if the remainder of the GI tract is functional. Aris R-NIet al: Consensusstatement: guide to bone health and disease in cysticfibrosis, / Clin EndarinolMeu. bol90:1888, 2005. SeeBasal metabolic rate BN. They
are not digestible, contribute to increasedfecal bulk, and may be fermented in the small intestine. One often-overlooked aspect of heart recipient longterm health is the need to avoid infection because of the necessity of lifelong use of immunosuppressive drugs. Peripheral parenteral nutrition mixtures are administered via peripheral catheters, usually
qtr.trstuaqedqsrueqJo snlelsIeuonlJtnN :le le C uasueH '0002'St:SS I,Golouxoa'sreprosrp ur stutprxorluv :le te O ueuruueH JueuneqJ pu? "You've worked really hard at this." To elicit responsesfrom the client on ideas about where changes in the diet need to occur, it is helpful to provide feedback on the client's progress toward a goal. There is a clear
 need for further researchon the yo-yo effect of weight rycling, which appears to result in increased body fatnessand weight with the end of each rycle. GermanJB: Genetic dietetics:nutrigenomicsand the future of 105:530,2005. When this fails to occur, bile saltsand fatry acidsincreasecolonic permeability to oxalate. The secondphasereintroducesoral
feedingsof that are isosmotic, low residue, and lactosefree so beverages asto compensate for the lossof intestinal enzymessecondary to alterations in the intestinal enzymessecondary to alterated, phase three includes the reintroduction of solids that contain low levels of lactose, fiber, fat, and total acidity and no gastric irritants. If given in a
food, open the capsules and mix the microspheres with a soft food such as applesauce; do not mix CHAPTER 35 I Medical Nutrition Therapyfor Pulmonary Disease 91 Cystic Fibrosis. Whether a lush jungle scene or a tantalizing layout of colorful foods sounds like a better fit, Unsplash has thousands of stellar HD wallpapers for every interest. Pixabay
crackers, applesand cheese Combine raw and cooked or processed foods in a snack. Partial or total resections of the intestinal tract may induce profound lossesoffluid and electrolytes, the severity of which is related to the length and site of the intestinal tract may induce profound lossesoffluid and electrolytes, the severity of which is related to the length and site of the intestinal tract may induce profound lossesoffluid and electrolytes, the severity of which is related to the length and site of the intestinal tract may induce profound lossesoffluid and electrolytes, the severity of which is related to the length and site of the intestinal tract may induce profound lossesoffluid and electrolytes, the severity of which is related to the length and site of the intestinal tract may induce profound lossesoffluid and electrolytes, the severity of which is related to the length and site of the intestinal tract may induce profound lossesoffluid and electrolytes, the severity of which is related to the length and site of the intestinal tract may induce profound lossesoffluid and electrolytes, the severity of which is related to the length and site of the intestinal tract may induce profound lossesoffluid and electrolytes, the severity of which is related to the length and site of the intestinal tract may induce profound lossesoffluid and electrolytes.
It now appears that most health benefits can be gained by physical activity to include in a weight-reduction program. Smith KA et al: Circulating gastrinis increased in hemochromatosis, FEBSLen 580:6195, 2006. Expression of hope
and confidence in the client's ability to make changesin the furure, when the time is right, will be beneficial. Wotecki CE et al: National Health and Nutrition Examination Survey-NIIANES: plans for NIIANES III, Nutr Tbday 23(1):25,1988. Rambaldi A et al: Milk thisde for alcoholic and./or heparitis B or C virus liver diseases, Coehrane Database SystRn
CD001620, April 18,2005. When the diameter is decreased (as in atherosclerosis) resistance and blood pressure increase. If the patient to relax and swallow clinical privileges. In Elliott et al, editors: The clinicalguide to oncolog nutition, ed 2.
SeePolyunsaturated fafty acids pulmonaryaspiration definition, 506,899 risk, enteralnutrition administrationand, 514 pulmonaryysystem. SeeLung(s) anatomy, 900f diseases asthmaas, 904 chronic obstructive pulmonary diseases asthmaas, 905 definition, 506, 899 risk, enteralnutrition administration administr
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genes. The role of omega-3 and other polyunsaturated fatty acids in regulating the expression of genes involved in lipid metabolism has become increasingly clear flump, 2004; Sampathand Ntambi, 2004; Sampathand Ntambi, 2004; Sampathand Ntambi, 2005). Excess storage of iron in the body is known as hemosiderosis. Church MK, Warner JO: Preventing the evolution of the
 allergic march towards asthma: have we found the answer? Scolapio JS et al: Prophylactic placement of gastrostomy feeding tubes before radiotherapy in patients with head and neck cancer: is it worthwhile? pooru aao-rdurr ' S002' ZtSI llu,tanaqA ?oW'snuqtre Plol?runerptFI.{\ osBeslp pue uonlrtnulew :lEra,4AEPDInC sruenedur uotssa.rEord '5002'
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infant cereal is added per ounce of formula, with adjustrnents made as necessary. Yet age alone should not preclude weight loss treatment in older adults; careful evaluation of risks and benefits is needed. GenorYPEAND N urRrrroN AssEssMENT The application expected to have the most dramatic impact on the way nutrition professionals approach
their work is the ability to associate genetic makeup, with that person's susceptibiliry to a particular disease. Genetic science and nutritional science are identifing the influence of specific food components and other environmental factors on gene expression. further that person's susceptibiliry to a particular disease. Genetic science and nutritional science are identifing the influence of specific food components and other environmental factors on gene expression. further that person's susceptibiliry to a particular disease. Genetic science are identified to a particular disease.
guide the nutrition professional in the most efficacioustherapy for ameliorating or, ideally, preventing the development of various nutrition related diseases. Clients will arrive for nutrition counseling sessions with their genetic profiles in hand. Duing the early (often oliguric) phase of ARI meticulous attention to fluid status essential. Therefore an
optimal intake of this fatsoluble vitamin, especially later in life, may be important for bone health, the reduction of fractures, and calcium homeostasis (Vermeer et al., 200+). It is important to consider the vitamin K intake in older persons who may also be taking blood-thinning medications. His past medical history was significant for rype I diabetes
mellitus and chronic bronchitis. Holmquist C: Multivitamin Supplementsfue Inversely Associatedwith Risk of MyocardialInfarction in Men and Women-StockholmHeart EpidemiologyProgram (SHEEP)' -2 J Nutr 133:2650 654, 2003. extra snacls, and foods selectedfor high-nutrient density. U | ' F o 0,) trbo o;i .l an o bYo>4' E o p, o tr o G p x o = (, z ll48)
PART5 i MedicalNutritionTherapy Approximate DailyRequirements for Selected DietaryGomponents and Amino Acids in InfancyandGhildhood Dietary Gomponent Forst (e) ines Lysine Threonine Tryptophan Energy Water Carbohydrate Total protein Fat
 Age,/Requirement Bifth to L2mo (me/kel 1to 10yt (mg/dayl 1-5mo: 47-90 6-12mo: 50-80 20-45 l 5-50 90-120 +5-87 t3-22 l-5 mo: 108kcal/kg 6-12mo: 98 kcal/kg 100ml/kg kcalx 0.5 + {: g/day 1-5mo: 2.2g/kg 6-12mo: 1.6gkC kcalx 0.35 + Q: g/day 200-500*
25-85 (mg/kg) 1000 1000 400-600 400-600 400-600 400-800 1200-1600 800-1000 60-120 70-102 kcal./kg 1000 ml kcalx 0.5 + \{: 16-18 \text{ g/day k c} \text{ a l x 0} . Many computer software programs that use the USDA nutrient database as the standard reference are also available. Pellagra (niacin deficiency) also affects the nervous system: it is less common in the United
peritoneum. A catheteris surgicallyimplanted in the abdomenandinto the [email protected] 16-6). In most instances the gastrointestinal tract function support. fu the knowledge baseexpands, the list of diseases amenable to nutrition intervention increases. Availability
of sophisticatedfeeding and nourishment proceduresplaces increasedresponsibility on those who provide nutrition, 306 referencedaily intakes (RDIs), 347t definition, 337 referenceheights and weights for children and adults, 340t
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conecells, 71 7 l retinal-binding protein (RBP), halflife and reference rangefor, 420t retinoids, 68-74. See ahoYrtaminA, retinol. Very hot and cold foods or beverages, spices, and sour or tart foods also may cause pain and should be avoided. Nutrition and diet therapies generally are based on the "you are what you eat" principle. Below are examples of
questions to use in eliciting the self-motivational feelins statements. The UnitedStates The HIV/AIDS surveillancesystemof CDC works with state and local health departments, collects information to track the HIV epidemic, and directs funding for prevention. Distal RTA is treated with small amounts of bicarbonate, 70 to 100 mEq/ day, with complete
 resolution of disease manifestations. counseling, Thorics Satia-Abouta]: Dietary acculturation: applicationsto nutrition 2005. oq o6 ao oq! bo q oa! ox ovxo S-.9 lloo.=xx 9q{.1 60 E; d>> Ebo :x tlt o\ En dio >. The OA group includes OA, bursitis, and tendonitis. Surgical treatments for advanced COPD may involve lung volume reduction surgery and
lung transplantation. l. Selenium-dependent enzymes are also required for the conversion of thyroxine (T4) to the biologically active thy'roid hormone, triiodothy'ronine (T3); thus deficiencies of selenium, vitamin A, or iron may also affect iodine status. The body interprets this hypoglycemic state as starvation and secretes counter-regr, rlatory
hormones that release free fatty acids from fat cells (Ludwig, 2002). Most statesdo not delineatewhich pracusing a syringe, and simultaneously auscultate over tices can and cannot be performed by the NSD. First determine a rough estimation of the appropriate weight for the anticipated adult height. Barzllay J et al: The association of fasting glucose
levels with congestive heart failure in diabetic adults >65 years, J Am Coll Cardiol 43:2236,2004. pylori infection. The goal cycle for infusion time is established incrementally when a higher rate of increasing or decreasing the
rate. Alendronate The skeletal benefits of alendronate have been similar to those of etidronate, but alendronate have been more effective in fracture reduction (Black et al., 2000). A postsurgical food record noting the tolerance for specific foods in particular amounts helps in devising a program to avoid these episodes. qJ Qts !9 >a o9) 6 LOE >. For
example,) zounggirls who are typically premenarchealmay incur fractures with minimum trauma (Gouldinget al., 2005), in part because of low BMC and BMD related to rapid growth in height that is not accompanied with a proportionate increase in weight. Zinc supports immunity; is needed for wound healing; helps maintain the sense of taste and smell
is needed for deox''tibonucleic acid s1'nthesis; and supports normal growth and development during pregnanry, childhood, and adolescence. Morning headache and confusion from hypercapnia (excessivecarbon dioxide in the blood) must be identified because these symptoms may interfere with food preparationor intake. 25 f Nutritionfor
OralandDentalHealth 649 CHAPTER helly is a 51-year-old single mother of two teenage Q uJ daughters who works full-time as a real estate agent. "Tell me aboutho* (e.g., hobbyor interest) is going?" . Diet fowin satuatedffi, trarc fiil, clrelesterol Restrictedsodiumdtrlt- 120,2001. Abnormalities of these mechanisms, many of which are not completely
understood, result in exaggerated weight fluctuations. United StatesDepamnent of Health and Human Services, U.S. Department of Agriculture: Dietary Guidelines for Americans on March J,2006, from wwn'.healthierus.govl 2005, accessed dietaryguidelines for Americans on March J,2006, from wwn'.healthierus.govl 2005, accessed dietaryguidelines for Americans on March J,2006, from wwn'.healthierus.govl 2005, accessed dietaryguidelines.
the American public, J Am Diet Assoc102:14,2002. Seealso Nutrition assessment nutrition-focused physical examination, 405-406 nutrition imbalance, 384-387 nutrition screening, 188-390 food-drug interactions in, 432-453. Advance directives are legal documents that residents use to state their preferences about aspects of care, including those
regarding the use of nutrition support. Levy HB, KohlhaasHIC Considerationsfor supplementingwith coenzymeQ during statin trcrapy, Ann Phnmatortn 40:2X), 20M. 0 the rN on surgical cases attually, becomes attually and the rN on surgical cases.
weight gain, and occasionally difficulties with constipation. in the postgenomics: a previewof what is to come, Nutr Clin Prnct20:75, 2005. Beyer, MS, RD, LD, 2006. Investigate the potential for pesticidecontamination, which can be minimized by choosing organically grown herbs
 whenever possible. FIGURE 20-6 Decision tree for home infusion [email protected] of Heahband Human Seruices, Centers Medicare and Medicaid Seruices: llome Infusion tree for home infusion [email protected] of Heahband Human Seruices, Centers Medicare and Medicaid Seruices: llome Infusion tree for home infusion [email protected] of Heahband Human Seruices, Centers Medicare and Medicaid Seruices: llome Infusion tree for home infusion [email protected] of Heahband Human Seruices, Centers Medicare and Medicaid Seruices: llome Infusion tree for home infusion [email protected] of Heahband Human Seruices, Centers Medicare and Medicaid Seruices: llome Infusion tree for home infusion [email protected] of Heahband Human Seruices, Centers Medicare and Medicaid Seruices.
disorders of the tubules and interstitium exist. Calcium channel blockers . With less than optimal insulinization, conversion of protein to glucose can occur rapidly, adversely influencing glycemic control. Lipids comprise a heterogeneousgroup of compounds characterized by their insolubility in water, and they can be classified into three major groups
(Box 3-2). Seealso Heparricence phalopathy Hry 1006 definition, 708 Wernicke's definition, 708 from hyperemesisgravidarum, 182 in cirrhosis, 722 resffiction, J74 endonucleases, definition, 506 endoscopy md, 662b capsules
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 ageand genderon resting energyexpenditurein severelyburned children, Ann Surg 244:121,2006. Proton pump inhibitors, which decreaseacid production by the gastric parietal cell, are considered the most effective treatments (Floltrnan et al., 2004), but milder forms of reflux are sometimes managed by H2 receptor antagonists and antacids. Eachset
of three nucleotidesin the exonmakeup a codon, and each codonspecifies an amino acid in the protein. The Mendelian modes of inheritance are logical and predictable as a result of the distribution of chromosomes during meiosis. The morbidity associated with C\rD make it a major public health problem, with approximate cosrs in 2006
exceeding$403 billion. Risk factors include a history of unpleasant oral experiences(e.g., intubation, frequent suctioning, or recrilTent vomiting), a history of nonoral feedinp, delayed introduction of solids, or discomfort or choking associated with eating solids. Hipertension is frequently present with other risk factors such as hipercholesterolemia and other risk factors include a history of unpleasant oral experiences(e.g., intubation, frequent suctioning, or recrilTent vomiting), a history of nonoral feedinp, delayed introduction of solids, or discomfort or choking associated with eating solids.
obesity and is one of the risk factors used to determine the presence of metabolic the incidenceof syndrome.teating hypertensiondecreases stroke, CHD, and HF (see Chapter 33). The pH will rise if a nonsugary item that stimulates salivais eaten immediately before, during, or after a challenge. Logue E et al: Tianstheoreticalmodel-chronicdisease carefore the risk factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the presence of metabolic the incidence factors used to determine the pr
obesityin primary care: a randomizedtrial, ObesRes13(5):917, 2005. Reference Ranges To determine whether a particularly when serial data are not available, the value is generally compared to a reference range. Seenlso Food-dmg interactions in motivational intervention mod.el, 496-498 laboratory data, 41
-431. Useful approaches that may facilitate feeding acceptanceinclude providing a pleasant and calm mealtime environment, providing oral stimulation during tube feedings, using consisrent and appropriate feeding techniques, and gradually introducing progressive texture and flavor changes. Such disorders are detected by means of a karyotype, and gradually introducing progressive texture and flavor changes.
lean only, 3 oz Tirrkey,roasted, white meat, 3 oz Veal, culet, cooked, 3 oz Beef, ground, cooked, extralean, 177 fat, 3 oz "Daily values (DVs) are reference numbers based on the recomended dietary allowance. tuetuoJ qsy 'a>1etur lSreue ur parsnlperelp? pylori and early recognition of the symptoms and risk factors associated with peptic ulcers, their
incidence and prevalence and the number of surgical procedures related to them have decreased markedly in the last three decades. For the aging population in the United States, dietary intake, oral health and their influence on nutritional and overall well-being is paramount.. Iron deficienry anemia is common in children, adolescent girls, and
women of childbearing age. Kang et al: Intermediatehomorysteinemia: a thermolabilevariant Am J Hum Genet reductase, of metlrylenetetrahydrofolate 43:414,1988. SeeDeoxpibonucleic acid DNA transcription, 6lf, 62b docosahexaenoic acid (DHA) adequate, obtaining, I 106-1108 brain function and, I 105-l 108 definition, 199, ll02 dietary consumption
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1178f definition, 1170 health concerns, 1179, ll79t nutrition assessment, 1179-I 180 nuuition problems/risla, 1I 73t pathophysiology, 1178f drip feeding, intermittent, 514 definition, 432 drug(s) actions. Sarubin-Fragakis A:
0.8 0.8 0.8 0.5 6 6 4 *Daily values (DVs) are reference numbers based on the recommended dietary allowance. Goulding A et al: Bone and body composition for children and adolescents with repeated forearm fractures, J BoneMiner Res20:2090,2005. In summary pharmacotherapy is not a "magic pill" to cure obesity. Adapted from DeBusk R-&I:A
practical guide to herbal supplemens for nutrition practitioners, TopicsClin Nutr 16:53,2001. Medical Treatment Early diagnosis of pernicious anemia can be somewhat complicated becausehematologic signs do not always correlate. USeFUL WessrrEs American Counseling Association http://www.counseling.orgl American Dietetic
AssociationNutrition Diagnosis and Intervention hnp:// eatright.orgl Counseling Relationships-Code of Ethics http://www. Exercise Physical activities such as regular walking and swimming appear to have minor skeletal benefis for older individuals, but more active participation such as weight-bearing exercises and intensive walking do have positive
 effects on BMD (Karlsson et al., 2001). Coagulation proteins and related substances missing or significandy reduced. Erosive and nighttime GERD are considered to be associated with more severe and prolonged syrnptoms. levels from lessthan 4% of total energy to 4,'/oto 8% to greater than 8% resulted in a corresponding decline in HDL levels as
PUFA levelsincrease. However, in women with the A allele, increasing PUFA concentrations increased HDL levels. The effect was most dramatic in those with one copy. 392 PART3 Nutrition Care Process L E V E LI S C R E E N WEIGHT LBI Kc Body Weight Measureheight to the nearestinch, and
weighto the nearestpound. Record the values below and mark them on the BodyMass Index (BMI) scale to the right. Non-Hispanic black women have the highest prevalence, followed by Mexican-American women, American Indians and Alaskan natives, and non-Hispanic whites (Fledley et al., 2004). Caffeine and Carbonated Beverages The relationship of
moderate consumption of caffeine to osteoporosis has not been clearly established. When it becomes okay to discuss resistance, the rationale for its original existence may seem less important. The aging body mass causes changesin neuroendocrine regulators, and metabolism, which affect the inflammation process. Current
demographic trends have created a growing need for cultural competence in all professions. They often provide approximately 8 to 14 g of intact protein. Glomerulus Etterent arteriole duction, which in turn is responsible for mobilization of calJuxtaglomerular cium from bone (see Chapter 24). Using the
tube, measurethe patient for gastric placeand is typically the patient's advocatefor the optimal feeding ment (usually 50-65 cm). Ho meC are Resources and technology for safe and effective management of long-term enteral therapy are widely available for the home care setting.
successfully include identification of appropriate candidates and a feasible home environment with responsive caregivers, a choice of a suitable nutrition support regimen, training of the patient and family, and a plan for medical and nutritional follow-up visits. Soil in Nebraska and the Dakotas has very high levels of selenium, and the southeast coastal
areas in the United States have very low levels. sideeffects, Nutr Cancer Corrales K&[, IJtter SL: Growth failure. Because maintaining energy expenditure is essential. CHAPTER25, Nutrition for Oraland Dental Health 641 Nutrient
Composition Nutrient composition contributes to the ability of a substirate to produce acid and to the duration of acid elposure. E ^t" +cF :ei: "n E xq 'E bv € L23O APPENDIXES to { !n t H \ c; boF- EE .A9i 'ji= N:. One noted exception occurs after SCI. 658 P A R T5 M e d i c a lN u t r i t i o nT h e r a p y treated surgically with fundoplication, a
procedure in which the fundus of the stomach is wrapped around the lower esophagusto limit reflux (Urbach et al., 200+). One illustration is the often-asked question: "Does milk cause an increase in mucus production in people with asthma?" A group reviewed the literature and found no causeand effect. EpsteinS: Update of current
therapeuticoptionsfor the treafinent of postrnenopausal osteoporosis, Clin Ther 28:1 5 l, 2006. pylnri, smol0.2 mglPorilon (No More Than 6 Servlngs/Day) All other fish (3 oz), derk meat turkey; cold cuts and
frankfurters that do not contain pork, dark turkey or organ meas. 1040 PART5 I MedicalNutritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral and Enter all utritionTherapy WeesrrEs USeFUL American Society for Parenteral American Society for Parenter
http://wrvw.burnsurgery. Because fat is energy rich and provides 9 kcaUg of energy, humans are able to obtain adequate energy with a reasonable daily consumption of fat-containing foods. a Parenteral Nuffition Solution 1. See aholron supplemental, for adult total parenteral nutrition formulations, 520r zinc as, 120-124. See also Zinc nutritional frcrs,
1294-1295,1297-1304 parenteral for prematureinfana, 1124,1124t problem, in U.S. diet, 103 requrrements in adolescence, 252-254,252t in childhood,225-227 in cirrhosis, 722,722t in COPD, 908 inheadinjury 1033 in HW disease, 1011 in infants with bronchopulmonary dysplasia, 906 in infants with chronic lung disease of
prematurity, 906 in lactation, 187-188 in majorburns, 1036 in metabolicstress, 1030 in olderadulthood, 300 in pregnancy, 175-L77 in respiratory failure, 917 ulrarace, tJ) boron as, 134 chromium x, 132-133 c o D altas, 1JZ f-lJ) iodine as, 127-129. Sufficient measurement of baseline and sequential levels of biochemical parameters, route of
nutrient administration (supplement or food), and length of srudy vary. Selected FoodSources of lodine Food Salt (iodized) Cod Shrimp Fish sticks Tirna, canned in oil Milk (cow's) Egg, boiled Navy beans, cooked Potato with peel, baked Tirkey breast, baked Seaweed Serving 't o 3oz 3oz 2 fish sticks 3 ounces(72can) I cup (8 fluid oz) I large Vzcup I
medium 3 ounces I oz, dried Micrograms pel Serving 77 99 35 35 r7 56 29 35 63 34 Variable; may be greater than 18,000 mcg (18 mg) %DailyValue* 51 66 23 L) ll J/ t9 23 +2 22 t2 *Daily values (DVs) are reference nmbers based on the recommended dietary allowance. Prolonged use of corticosteroidsis associated with negative side effects such as
osteoporosis, fluid retention, adrenal suppression, glucose intolerance, electrolyte imbalance, or even arm and leg muscle wasting. Although age-associated both sexes, women are more severely affected because they have a smaller skeletalmass than men and they live longer. The Safe Medical Devices Act, effective since 1993, has placed responsibility
on the agenciesto monitor and report adverse effects. The calcium in some vegetables is inactivated by the presence of oxalates. Although phytates in unrefined cereals also can inactivate diets tend to be based more on fi:uits and veeetables than on the unrefined cereals of Middle Eastern
.Jtor.r. Long-term vegans may develop megaloblastic anemia because of a deficienry of vitamin 812, found only in foods of animal origin. Reprinted with permission. The doses of these medications used after transplantion are decreased over time until a "maintenance level" is reached. It stimulates the activity of approximately 100 en4nnes, which are
substances that promote biochemical reactions in the body. It also has provided a way to trace familial diseases caused by genedefects in mitochondrial DNA. Cancer Epillemiol Biomarkers Prea 13:1163,2004. Chewable vitamin C supplements provide an acidic zubthat directly contacts tooth surfaces and causes a drop :tan:: in pH of the oral caviry making
teeth susceptible to decay. A 2006 report identified the origin of HIV in southeast Cameroon, where wild chimpanzeeswere found to have viruses most like the HIV found in humans globally (Keele et al., 2006). This plaque can grow and produce ischemia either by insufficient blood flow if there is a high oxygen demand or by rupturing, forming a
CHAPTER 32 thrombusand occluding the lumen (Rudd et al., 2005). Discovering the mechanisms of energy generrdon* the cellular level in respiratory diseases the medrods to promote and mainain body composition of patients, and the specific roles of nurients end dre other food components (e.g., phponutriene) in the etiology or treaunent of
putnonary conditions offers promise for the funrre. DietaryReference Intakesfor Iodine Life Stage Age Infants Children C
Females(mcg,/day) 110(Ar) 130(AD 90 90 120 150 150 220 290 The iodine contents of some common foods containing iodine are given in the following table. What immediate nutrition support medrod would be recommended? For example, Latinos enjoy personal closeness Middle Easternersprefer to with friends and acquaintances. Plasma-The
uncoagulated fluid that bathes the formed elements Olood cells). Numerous other positive side effects include strengthening cardiovascular integriry increasing sensitivity to insulin, and expending additional energy and therefore calories. Uncomplicated peptic ulcers in either region may present with signs similar to those associated with dyspepsia
and gastritis. Candidiasis, or opharymgeal (thrush). Therefore patient care plans frequency involve transitional feeding methods being used simultaneously. The attachment of the esophagus to the hiatal ring may become compromised, allowing the esophagurs or a portion of the upper
stomach to move above the diaphragm. *Assumesnormal organ function. (I{HANES fV) (Carroll, 2005).CHD mortality rateshave
also been declining during this time frame. The band, filled with saline, has a tube exiting from it to the surface of the belly just under the skin; this allows for the injection of additional fluid or reducing the fluid into the lap band (Figure 21-5). Nowson CA et al: Blood pressure change with weight loss is affected by diet type in men, Am J Clin Nut
81:98],2005. Write a week's set of menus that Bob can agree to follow, starting with a meal at home for breakfasg at a resteurant for lunch, and from a carryout deli late at nighr 2. Nasogastric or nasojejunal feeding tubes are used most commonly for the short-term administration of enteral nutrition formulas. Individuals with cancer often report a
decreased ability to eat as the day progresses, which means that the morning is often the best time for eating. This approach focuses on achieving health rather than attaining a certain weight. Although variables such as age, gender, and feeding type (i.e., breast milk, formula) can impact TEE among infants and young children, weight has been
determined as the sole predictor of TEE needs (Institute of Medicine, 2002; 2005). Repeat this should also ensure that it will facilitate the proper trainpulmonary placement. Estimates for the number of that involves inflammation
resulting in extreme fatigue, arpeople in the United Stateswith systemicsclerosisrange from thritis, unexplainedfever, skin rashes, and kidney problems 40,000 to 165,000(fiIAMS, 2006b). gou/bgmis) 370 PART 3; NutritionCareProcess DNA SequenceVariation in a Gene Can Change the Protein Produced by the Genetic Code GeneA from CGT TCT CTA
TTA ACA Proteinproducts 12345 Gene A from CGC TCT GAT TTA ACA person2 (Codonmade no } A differentamino 1 2 3 45 acid at position2) FIGURE 13-4 Somevariations a person's genetic codewill have no effect on the protein that is
produced; others can lead to disease an increased susceptibility to a [email protected] U.S. Department of Energ; Human Genome Program: www.ornl. Symptomatic HIV occurs when grmptoms appear (see Box 38-1, Category B). Jabbar A et al: Gut immunology and the differential response to feeding and starvation, Nutr Clin Pract 18:461, 2003. gov/
PubMed http://www.ncbi.nlm.nih. storagetal ..........9/"-23Vo numbers cell do not increase until maximum cell size is b. Medications used to treat the diseases, either by prescription or over the countet may have adverse effects, further compromising the ability to inquest an optimal diet (see Chapter 16). You have made changes in the past, and you are
the best judge of when it is the best time to consider change." RenDY-To-CHANGE CouNsELrNc SessloNs The major goal in this stage of change is to collaborate with the client to set goals for change that include a plan of action. Functional dyspepsia is a term that describes unexplained persistent or recurrent upper GI discomfort.
Other Painful Mouth Problems Stomatitis, or inflammation of the oral mucosa, and palate, which makes eating painful. According to the Food and Nutrition Board, choosing various foods to meet dietary recommendations should provide adequate amounts of the nutrients that do not have well-
defined recommended levels. A varied diet also ensures that a person is consuming sufficient amounts of food constituents that, although not defined as nutrients, have biologic effects and may influence health and susceptibility to disease. Examples include dietary fiber and carotenoids, as well as lesser known phltochemicals (substances found in plant
products) such as isothioryanatesin broccoli or other cruciferous vegetables and lycopene in tomato products (see Tables 9-1 and 9-2). SeeAlcohol(s) Index L32l etidronate, for osteoporosis, 63 1 evaluation, in nutrition care process, 457, 459 evidence-based guides for practice, definition, 454 evidence-based medicine, in nutrition care process, 458b.
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calcium, 150 of chromium, 132 of cobalt, I 34 of copper, I 26 of drugs food effectson, 438-439 food interactions with, 434 ofiodine, 128 of potassium, 150 of sodium, 150 o
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before, carbohydrates in, 594, 595b nuffifional requirements of, 59| - 592 nutrition for, 587-613. Thus the pleasurable aspects of eating should be emphasized, without concern for quantity or nutrient and energy content. He worked out daily until recendy, when he began to have SOB and peripheral edema. pflori infection is responsible for most cases of
chronic inflammation of the gastric mucosa, peptic ulcer, atrophic gastritis (chronic inflammation with deterioration of the mucous membrane and glands, resulting in achlorhydria and loss of intrinsic factor), and gastric cancer (srael and Peelq 2006; Candelli et al., 2005; B5tvcr and O'Morain, 2005). SeeDietary Supplement Health and Education Act
of 1994 DSM-TR-IV SeeDiagnostic and Statistical Manual of Mental Disorders, TR-IV dual-energy x-ray absorptiometry (DXA), 24, 25, 25f Duchenne muscular dystrophy, 374 dumping s1'ndrome, 666-669 after gastric surgery for crncer, 977 definition, 654 medical nutition therapy, 668
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childhood, 567t in amyotrophiclateralsclerosis, intervention for, 1089b in neurologic disorders, 1074-1076, 1077b in olderadulthood, 291 dyspnea, 903 definition, 884, 899 in heart failure, 884 dysthymic disorders, 1074-1076, 1077b in olderadulthood, 291 dyspnea, 903 definition, 884, 899 in heart failure, 884 dysthymic disorders, 1074-1076, 1077b in olderadulthood, 291 dyspnea, 903 definition, 884, 899 in heart failure, 884 dysthymic disorders, 1074-1076, 1077b in olderadulthood, 291 dyspnea, 903 definition, 884, 899 in heart failure, 884 dysthymic disorders, 1074-1076, 1077b in olderadulthood, 291 dyspnea, 903 definition, 884, 899 in heart failure, 884 dysthymic disorders, 1074-1076, 1077b in olderadulthood, 291 dyspnea, 903 definition, 884, 899 in heart failure, 884 dysthymic disorders, 1074-1076, 1077b in olderadulthood, 291 dyspnea, 903 definition, 884, 899 in heart failure, 884 dysthymic disorders, 1074-1076, 1077b in olderadulthood, 291 dyspnea, 903 definition, 903 defin
(ECC), 645-646,646f definition, 636 eaong chaotic, in eating disorders, 574 disordered. In addition, because it can gel in the gastrointestinal tract, thus causing obstruction, it must be given with sorbitol, a nonabsorbable sugar that induces diarrhea. In children and pregnant and lactating women, the EER includes the needs associated with the
deposition of tissuesor the secretionof milk at rates consistentwith good health. The Wtzeljejunostomy and needle-catheterjejunostomy (creating feeding opening by a small-bore needle insertion into the jeiunum at time of surgery) are shoft-term small bowel accessmethods. Obesity that began in childhood tends to lead to severe problems in
adulthood (e.g. hypertension, elevated LDL cholesterol, and triglycerides) (Thompson et al., 2007). Percutaneous endoscopic jejunostomy (PE) rubes are best for patients who require postpyloric feedings as a result of intolerance of gastric feedings require pumps, which severelylimit mobility of the patient. A product manufacturer
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cannot claim that a dietary supplement "prevents heart disease,"but it can state that the product "helps to increase blood flow to the heart." Such subtle differences are unlikely to be discerned by the averageconsumer, leading to misinterpretation and potentially inappropriate use of the products. Natural food sources include those listed in the
followinE table. The on the Nutrition Facts panel of food labels states the percentage of the DV DietaryReference Intakesfor Iron for Ghildren andAdults Males and Females (mg/dayl FoodSources of Iron Selected provided in one sening. The extended contact time with the fermentable carbohydrate-containing beverages, coupled with the position of the
tongue against the nipple' which causes pooling of the liquid around the maxillaryincisors, particularly during sleep, contributes to the decay process. The mandibularanterior teeth are usually [email protected] 25-4) 646 PART4 I Nutrition for Healthand Fitness foods on when foods are cariogenic, they should be followed by toothbrushing or rinsing the
mouth. :le tuaclC 1[tell'11a eeux p00l suor]ereprsuor pue uo3303 re f LgIt(Z)tl loIxl] C .IOOZ.Sf'I:OZ fta;es 'sFa3geeprs'rusrloqeteurasocnlSuo stJe:lJe Jo naeraeJ anN lll] u,y f 'f,pus relossorr pellortuoc-oqacelduou e :suerunqur slJaJJa eurruesoJnlC:1ere 11f uos;apuy 'f.002'9tt11 ,$e\p pte read-o.trle :snr-rr{deu sndnlur paesxelC:F re dr\,1{rEIJ rlssv xuv}
uerreta8e., r f '5002'£.tLl :BPEueJ aql u1d6.,u.n3 Jo suErlrlerclPu?suoBBrcosryrnerercl uEJrJeur\y' 'serroqca/rsay1 puu lSolonuaprda:rnoglotuunaqd .) +C uonrsod :ePEueSJosuBrtDarcl'uoDErJosrycnelercl uEJrJeur\y' 'serroqca/rsay1 puu lSolonuaprda:rnoglotuu
:ueru rttorunaqlnl sada.taqlaawuraqp par f.taluatualdtuot egr ur rnoS;o pue ,sleuorssa;ord {rper.l lsrr ,e8ueqctqSre.tr6p"qO :lE Jnarnrp'uorsuat.reddq :luaruap$uolllsLd:l3010leurnsq5;o a3e103 uBcrreury te )H rorl3 '. Fluoride gels often are prescribed for adults and older adults. Gastrostomy feedingscan be usediflong-term feedingby tube is
necessary for total or zupplementalsupport. WojtaszekCA et al: Nutrition impact symptoms the excretion of potassium the control of potassium the control of potassium the control of potassium the excretion of potassium the control of potassium the excretion of potassium the control of potassium the excretion the excretio
impaired, potassium balance should be scrutinized carefully. In addition to dietary sources, all body tissues contain large amounts of potassium; thus tissued estmction can lead to tremendous overload. Potassium levels can shift abrupdy and need to be monitored frequendy. Potassium intake needs to be individualized according to semm levels (see Appendices 36 to tremendous overload. Potassium intake needs to be individualized according to semm levels (see Appendices 36 to tremendous overload. Potassium intake needs to be individualized according to semm levels (see Appendices 36 to tremendous overload. Potassium intake needs to be individualized according to semm levels (see Appendices 36 to tremendous overload. Potassium intake needs to be individualized according to semm levels (see Appendices 36 to tremendous overload. Potassium intake needs to be individualized according to semm levels (see Appendices 36 to tremendous overload. Potassium intake needs to be individualized according to semm levels (see Appendices 36 to tremendous overload. Potassium intake needs to be individualized according to semm levels (see Appendices 36 to tremendous overload. Potassium intake needs to be individualized according to the semm levels (see Appendices 36 to tremendous overload intake intake
and 56). Practices to avoid include sipping carbonated beverages over extended periods; frequent snacking; and harboring candy, sugared breath mints, or hard candies in the mouth for extended periods. The primary energy reserve of the body is the fat stored as triglycerides in depots made up of adipose tissue. bid, Twice dally; tid., three times
daily. There is no evidence suggesting that stable patients who are dependent on parenteral nutrition automatically translocate bacteria, become septic, or develop organ dysfunction (feejeebhoy, 2001). 24 It {utrition and Bone Health 635 CHAPTER Holick MF: The vitamin D epidemicand its healttr Am J Clin Nutr 135.27395,2005. Nutrition Diagnosis:
Inadequateoral food and beverage intake related to inability to eat as evidenced by intake of only 260 kcals and 24g of protein per day. Chronic gastritis may occur over a period of months to decades, with waxing and waning of grmptoms. Patients receiving inadequate oxygen may complain of anorexia, early satiety, malaise, bloating, and constipation
or diarrhea. Intubated patients usually require enteral tube feeding or parenteral feeding or parenteral feeding or barenteral feeding or parenteral feedi
phosphorus, and one offour nitrogenous bases: adenine(A), thi.mine (T), guanine(G), or cytosine(C). *Usully consists of a 2,1-hr recall with assessment of dietary pattem; should be obtained by a registrered dietitien. Problems noted products: Other Because of insufficient or conflicting eviwith DHEAinclude liver cancerin rars. There is no evidence that it
promotes fat or weight loss. The pressure of this sphincter is influenced by many factors, including scleroderma-like disorders, smoking, diet, and smoothmuscle relaxants. Table 20-6 lists parameters that should be monitored routinely. In practice, oral diets are often tried after inadvertent or deliberate removal of a nasoenteric tube. WargovichMJ,
 CunninghamJE: Diet, individual responsiveness and cancerprevention, JNutr 133:24005, 2003. Lingual caries may also be seen in persons with gastroesophagealreflux diseaseas a result of repeatedepisodesof acid regurgitation (Munoz et a1.,2003). Amylopectin is highly branched, containing up to 5% ct-1,6 branches, with a very high molecular weight
(107 to 108 daltons). Therefore the biologically available energy from foods and alcohol is expressed in values rounded offslighdy below those with greater ECC prevalence. A report of the SurgeonGeneral:Bone health and osteoporosis:
SurgeonGeneral, DHHS: Rockville, Md, 2004, website: www' srrrg"otg"tt"t al. govAibrzry honehealtVdocs' accessedFebruary 5,2007. Through prevention and treatrnent, MNT focuses on underlying qrusesof hypertension, coronary heart disease, and diabetes, and symptomatic relief of fluid imbalance with sodium restriction. govIdietaryguideline s/
dga2005/ reporr/ DietaryReference Intakes American Dietetic Association (ADA): Position of tlle American Dietetic Association: addressing world hungeq malnutrition, and food inseotrity, J Am Diet Association (ADA): Position of tlle American Dietetic Association and Minerals Exact requirements for specific vitamins and minerals in RF areunknown. It is assumed that vitamins and Minerals Exact requirements for specific vitamins and minerals in RF areunknown.
mineralsneed to be supplied the DRI plus repletion, based on the patient. fu lung disease progresses, grou.th velocity in children and weight for height in aduls may decline. and 0ligosaccharides exist in nature, three most
important disaccharidesin human nutrition are sucrose, lactose, and maltose. These joined by a glycosugarsare formed from monosaccharides sidic linkagebetween the active aldehydeor ketone carbon and a specific hydroxyl on another sugar @gure 3-3). gov/healthypeople/healthfi nder National AsthmaEducation and Prevention Program www.nhlbi.nih.
  "What makesyou think that if you decideto makea changeyou could do it?" . Modified from Ramsey BW et al: Nutritional assessmentand management in clstic fibrosis: a consemm reporg The Conrensw Comittee , An J Clin Nutr 55:108. A thorough history and pertinent medical tests usually determine whether underlying disorders are causing the
underweight. Vorlat A: Regularuseof margarine-containingstanoUsterolesters reducestotal and low-densitylipoprotein (I-DL) cholesterol and allowsreduction of statin therapyafter cardiac ransplantation:preliminary observations, J Heart Lung Tiansphnt22(9):I 059,2003. Studies generally show that use of nutrition support in the elderly is beneficial
especially when used in conjunction with physical acriviry. Phe restriction in PKU. He wants vour advice on what to do next UseFuLWrssrrEs American HeartAssociation www. :3u1no7olaqtto anut r0 auouqtqxa [o747 :Od llnl ecuapuadepulpue lal€ po!l!pot1l qSnoc ou selJuolslsuoJeJoruJo euo rpl r sPJoJ pue 'q8noc ou 'satcuelstsuoteJoru ol uoneJteued
{e,tr.rre ro lq8noc IBuoP{o^ >lBernpue qSnoo uorJe.rrdse Jo euo rpr,r,r. Matthewwent to school on the West Coast, where he studied nuuition and exercisephysiology and now managesthe wellnessprogram at a large fimess center. Also see CDC update for data at http://wonder. Typically patients are encouraged to drink 2 L/day, but their overall
needs will depend on their increased urine output. Richardson MA et al: Complementary/alternative medicine use in a comprehensive cancer center and the implications for oncology, J Clin Oncoll8:2505, 2000. Although the exposure, prevalence, and complications for oncology, J Clin Oncoll8:2505, 2000. Although the exposure, prevalence, and complementary/alternative medicine use in a comprehensive cancer center and the implications for oncology, J Clin Oncoll8:2505, 2000. Although the exposure, prevalence, and complementary/alternative medicine use in a comprehensive cancer center and the implications for oncology, J Clin Oncoll8:2505, 2000. Although the exposure, prevalence, and complementary/alternative medicine use in a comprehensive cancer center and the implications for oncology, J Clin Oncoll8:2505, 2000. Although the exposure, prevalence, and complementary/alternative medicine use in a comprehensive cancer center and the implications for oncology, J Clin Oncoll8:2505, 2000. Although the exposure, prevalence are considered as a complementary and the implications for oncology and the complementary and the implications for oncology.
physical activity is also less. However, until scienrists clearly demonstrate the biologic foundations of people's perceptions, clinicians will be asked the question and be expected to determine the proper course of treatment. 638 PART4 | Nutritionfor Healthand Fitness Effectsof NutrientsonToothDevelopment t{utrient Effect On Tissue
 Protein/caloriemalnutririon Delayed tooth eruption Decreased tooth eruption Decreased tooth size Decreased tooth integration (hypoplastic defects) Compromised tooth (hypoplastic defects) Compromised tooth (hypoplastic defects) Compromised (hypoplastic defects) (hypoplastic 
(decreasedmineral concentration) Delayed eruption patterns Dental pulpal alterations Odontoblastic degeneration Aberrant dentin Increasedsability of enamel (excess) Inhibition of bacterial growth Delayed tooth eruption Altered growth patreffrs
Malocclusions Slow growth Salivary gland dysfunction Vitamin A deficiency Fluoride presence Iodine Iodi
necessitate the use of different protocols and combinations of medications (Guzzo et al., 2005; Bytzer and O'Morain, 2005) (see Nnt Directions: The Genome of Helicobacter pylori). 25 I Nutritionfor OralandDentalHealth 651 CHAPTER Kashket S, DePaola DP: Cheese consumption and the development and progression of dental caries, Nun Reu 60:97,
2002. These situations require a response different from the traditional approach to disaster relief, during which it is assumed that hungry people will seek assistance and have confidence in the safety of the food that is offered (Bruemmer, 2003). Howeveg the motion of the neck makes this site much more difficult for maintaining the sterility of a
dressing. BowenWlI, LawrenceRA: Comparisonof the cariogenicity of cola, honey, cow milk, human milk, and sucrose, Pediatria 116):921,2005. Polydextrose and other polyols are syrthetic polyrners of sugar alcohols that are used as sugar substitutes in foods. Patients may experience numerous nutritionally relevant side effects. Some patients are
typically managed for long periods of time (short bowel syndrome), and others may be managed for a short time (head and neck cancer patients typically do not inform them of their use of botanicals or other dietary supplements. Foods high in water content
have a low energy density. The American Dietetic fusociation endorses the use of systemic and topical fluoride and water fluoridation as a vital public health measure (Palmer and Wolfe, 2005). What is the goal for weight gain? How long shouldit ake, provided that Vanessa's medicinesere effective? Dolezal BA, PotteigerJA: Concurrentresistance and topical fluoride and water fluoridation as a vital public health measure (Palmer and Wolfe, 2005).
endurance training influencebasalmetabolicrate in nondieting indiidvls, J Appl Physiol85(2):695,I 998. Tirmor Infection Respiratoryfailure OtherSystemAbnormalities Neuromuscular Skeletal Cardiovascular Endocrine Muscular dptrophy Paralysis Osteoporosis Scoliosis Pulmonary edema Severeobesity Prader-Willi syndrome Assessment of the
cardiovasculaq renal, neurologic, and hematologic systems also is important because diseases involving these systems often produce complications affecting N U T R I T I O NT H E R A P Y I N pulmonary anatomy, physiology, and biochemistry. Cbitosanis obtained by the deacetylation of acetylglucosamine of chitin (Shiau and Yu, 1998). How many
daysof food and water should be available? Bethesda, Md, MH. Sodium intakes are individualized based on fluid retention and blood pressure (see Appendix 37). wsp HIV Dent htq://www.nidcr.nih. If the client seems confused, detached, or resistant during the discussion, the counselor should return and or lied to the client seems confused and or lied to the client se
ask about readiness change. If readiness change is therefore dietary treatment is usually available; therefore dietary treatment is the main form of management of management and acceptance of the conclusion. No specific medical treatment is usually available; therefore dietary treatment is the main form of management of management and acceptance of the conclusion.
Reaction to life stressesmay also contribute to abdominal distress, in which casebehavioralmanagementand emotional support may also help. nerableplaqueQtraghavi Arterial changesbegin in infanry and progressaq..rnptomaticallythroughout adulthoodif the person has risk to arterial thrombosis, or has genetic factors, is susceptible susceptibility to
getting atherosclerosis(Figure 32-3) is (I{aghavi et al., 2006). Organic milk is one of the most popular organic foods chosen by consumers. Fruits and vegetableare grown without conventional pesticides, petroleum-basedfertilizers, or sewagesludge-basedfertilizers. Usuallysodiumandpotassium restriction. In addition, the diet analysis program of the
 Department of Nutrition and Food Sciences at the IJniversity of Vermont is available at the website: http://nutrition.uvm.edu/htrn/fs-inter.htrn. Use of tobacco producs decreases bicarbonate secretion, decreases mucosal blood flow, exacerbatesinflammation, and is associated with additional complications of H. GottschlichM&[, Ireton-JonesCS: The
Curreri formula: a landmarkprocessfor estimating caloric needs of burn patients, Nutr Clin Pract16:172,2001. StepI Calculate the resting energy expenditure using the World Health Organization equations for predicting REE from body weight (wt). r To reain the benefits of enteric coating, do not crush or chew the microspheres before adding them to
food or swallowing them. Wilkens, MS, RD Veenaluneja, MSc, RD KEYTERMS acuteglomerulus azotemia the accumulation of abnormal quantities of urea, uric acid, creatinine, and other nitrogenous wastesin the blood calciphylaris diseases characterized by inflammation of the capillary loops of the glomerulus azotemia the accumulation of abnormal quantities of urea, uric acid, creatinine, and other nitrogenous wastesin the blood calciphylaris diseases characterized by inflammation of the capillary loops of the glomerulus azotemia the accumulation of abnormal quantities of urea, uric acid, creatinine, and other nitrogenous wastesin the blood calciphylaris diseases characterized by inflammation of the capillary loops of the glomerulus azotemia the accumulation of abnormal quantities of urea, uric acid, creatinine, and other nitrogenous wastes in the accumulation of abnormal quantities of urea, uric acid, creatinine, and other nitrogenous wastes in the accumulation of abnormal quantities of urea, uric acid, creatinine, and other nitrogenous wastes in the accumulation of abnormal quantities of urea, uric acid, creatinine, and other nitrogenous wastes in the accumulation of abnormal quantities of urea, uric acid, creatinine, and other nitrogenous wastes in the accumulation of abnormal quantities of urea, uric acid, creatinine, and urea, uric acid, creatinine, and urea, acid, a
calcium phosphate depositionin soft tissues; occurs when there has been too high a calcium phosphorus remainderiovenous hemofiltration (CVH) a method of acute renal failure management membrane, powered by
the patient'sown blood pressureor a pump, produces an ultrafiluate that can then be removed and replaced parenteralnutrition fluids dialysate the solution used in dialysis ro remove waste products from the blood; electrolyte conrent similar to plasmathat can be adjusted increase or decrease plasma concentration of potassium, calcium, sodium
glucose, and bicarbonate end-stagerenal disease (ESRD) the kidney is nability to excretewaste products, mainrain fluid and electrolyte balance, and produce to receive the kidney in the adult and by the liver in the fetus, which acts on stemcells of the bone marrow to stimulatered blood cell production
glomerular filtration rate (GFR) the quantityof glomerular filtrate formed per unir in all nephronsof both kidneys hemodialysisa merhodfor clearingwaste products are removed by diffirsion and fluids by ultrafiltration hypercalciuriaa
meanvalue of urinary calciumin excess of 300mg (7.5mmol)/day in women, or 4 mg (0.1 mmol)fu/day for either in random urine collections of patients on unrestricted diets hyperoxaluria presence in the urine of greaterthan 40 mg of oxalateper day KTA/ a measurement of the removal of urea from the patient's blood over
time; K is the urea clearanceof the dialyzer, T is the length of time of dialysis, and V is the partient's total body water volume; also calledkinetic modeling low turnoverbonedisease characterized by oversuppression of the parathyroid gland with too much active vitamin D, which causes decreased bone formation and fragile trones with very little matrix
nephriticsyndromesImdromeof hematuria, hypertension, and mild loss of renal function that resultsfrom acuteinflammationof the glomerulus nephrolithiasis onditionmersulting from loss of the glomerular barrier to protein; characterized by massive edema
proteinuria, hypoalbuminemia, hlpercholesterolemia, hlpercholester
from the blood in which diffrrsion carries them from the blood through the semipermeableperitoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeableperitoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeableperitoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeableperitoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeableperitoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeableperitoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeable peritoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeable peritoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeable peritoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeable peritoneal membrane and into the dialysate; can be either continuous problem from the blood through the semipermeable peritoneal membrane and into the dialysate; can be either continuous problem from the blood through the semiperment of the blood through the semiperment o
Therapy renal osteodystroph! metabolicbone disease as complication of end-stagerenal disease renal tubular handling of bicarbonate renin-angiotensin mechanism of blood pressurethat involveskidney-secretedrenin acting on angiotensin mechanism form angiotensin, which is converted to angiotensin
If, a powerfirl vasoconstrictorand potent stimulus of aldosteronesecrerion to blood until modified by the other segments of rhe nephron to produce urine urea reduction of urea during dialysis; a form of kinetic
modeling uremia a clinical slmdrome of malaise, weakness, nausea and vomiting, musclecramps, itching, metallic mouth taste, and often neurologic irnpairment, which is brought about by * unacceptable level of nitrogenous wastes in the blood PrivsrCILoGY ANr) Function of the kidney is to maintain homeostatic
balancewith respect to fluids, electrolytes, and organic solutes. In such instancesit is difficult to determine whether malnutrition is the causeof the disease or one of many contributing factors, including poor oral hygiene, heavy plaque buildup, insufficient saliva, or coexisting illness. tllcers can perforate into the peritoneal cavity or penetrate into an
adjacent organ (usually the pancreas), or they may erode an artery and cause massive hemorrhage. For example, an S-year-old girl on the 75th percentile for height will probably maintain that growth channel and will achieve 67 inchesas an adult height. Accurate interpretation of laboratory results may be confounded by fuid
imbalances, medications, and ventilator support. Other nutritionally relevantfactors to assess include immunocompetence, chronic mouth breathing, aerophagia, dyspnea, exercise tolerance, and depression. And ersonlJB: Oversupplement or not to supplement with vitamin A (editorial)
 BoneMiner Res / 17:1359,2002. gov/ 5ad_2 evi.html or www. What recommendationswould you giveJanice to prepare her for surgery? There is 546 PART4 | Nutrition for Healthand Fitness no evidence that using artificial sweeteners reduces food intake or results in better rates of weight loss. Lipid Lipid provides 1.5% to 557" of the total kilocalories
in enteral formulas, but most formulas, but most formulas have between 30% and 40"/" of their total kilocalories provided by lipids, usually from corn, soy, sunflower, safflower or canola oils. Other available agents include metformin (Riomet); and metformin (Riomet); and metformin combined with the sulfonylurea glyburide (Glucovance),
 with the sulfonylurea glipizide (Metaglip), and with the TZD rosiglitazone (Avandamet). The primary etiologic factor in the development of periodontal disease plaque. Several methods are available for diagnosing CE For families with previously identified C[ prenatal analysismay be possible. Several countries and somestates in the United
Statesconduct routine neonatal screening for the disease. nutrients. CHAPTER 35 I MedicalNutritionTherapyfor Pulmonary Disease 907 CnnoNrc0esrRucrrvE PUIMoNARY rsEAsE Pathophysiology Ghronic obstructive pulmonary disease (COPD) is characterized by slowly progressive obstruction of the airways. The dietary guidelines recommend that
consumers select foods with less added susar and consume carbohydrates as fiber-rich fruits, o.g"t-rbl.r, and whole grains, thus linking digestible carbohydrate consumption with fiber intake (USDA, 2005). {Total energy expenditure, energy expenditure, energy expenditure, energy expenditure, energy expended in phlnical activity, and t}re t}return to the sum of the resting energy expenditure, energy expended in phlnical activity, and t}return to the sum of the sum of the resting energy expenditure, energy expended in phlnical activity, and t}return to the sum of the s
food. Electrolytes, acid-base balance, glucose tolerance, renal function, and cardiopulmonary and hemodynamic stability (maintain of adequate blood pressure) can be affected by parenteral nutrition and should be monitored carefully. Osmolarities of concentrated formulas are higher, ranging from 400 to 700 mOsm. Low serum concentrations of
yitamin A despite increased hepatic stores have been documented in CE suggesting impaired mobilization and transport of the vitamin from the liver. SeeThble 37-+C for common nutrition impact symptoms associated with specific surgical interventions for the treatment of cancer (seeChapter 27). The mucus in the airways keeps the airways moist
and traps the particles and microorganisms from inspired air. They express reservations for factors that may be amenable to intervention (i.e., stress) have not demonstrated a decreasein rislq and more research is needed. Nishida M: Calcium and the
risk for periodontaldisease, 7 l:1057, 2000. As with Glycogen CHzOH o (1-6) links c (1-4) links c (1
rransferrin, retinol-binding protein, and immunoglobulins) and somatic protein mass (e.g., pulmonary tissues and muscles) (see Chapters 2, 14, and l5). TPN is indicated for children who are receiving intense treaffnent associated with severe gastrointestinal toxicity and for children who are receiving intense treaffnent associated with severe gastrointestinal toxicity and for children who are receiving intense treaffnent associated with severe gastrointestinal toxicity and for children who are malnourished or have a high risk of
developing malnutrition. Whelton PK et al: Effects of oral potassiumon blood pre*zure: of randomizedcontrolled clinical tials, JAMA meta-analysis 277:1624,1997. Appropriate pain management medications such as topical anesthetics, anti-inflammatory agents, and opioid analgesics of oral potassiumon blood pre*zure: of randomizedcontrolled clinical tials, JAMA meta-analysis 277:1624,1997. Appropriate pain management medications such as topical anesthetics, anti-inflammatory agents, and opioid analgesics of oral potassiumon blood pre*zure: of randomizedcontrolled clinical tials, JAMA meta-analysis 277:1624,1997.
on the recommendations described earlier for xerostomia, along with modifications in food consistenry following surgery (see Chapter 37). The resulting open bite can make biting into nourishing foods such as sandwiches or fresh fi:uits and vegetables difficult. The Centers for Medicare and Medicaid Services have guidelines for home infusion
approval that are presented in Figure 20-6. YankaskasJR et al: Cystic fibrosisadult care:consensus conferencereport, Chest125:lS, 2004. In conjunctionwith DHS, USDA operatesProtection of the Food Supplyand Agricultural Production(PFSAP), and Ready.gov. Enteral nutritional supplementation by mouth or feeding tube can increase total caloric and
nutrient intake for some patients with COPD. When the alleles are the same (either both normaUcommon or both mutant/variant), the individual is said to be homozygous for that gene. This small difference results in a completely different compoundwith completely different absorption and metabolism the body. Although sugar-containing candies
causea rapid increase in the amount of sugars available in the oral cavity to be hydrolyzed by bacteria, their effect is short lived. Examples ofguidance to provide to parents about infants or children who are taking microspheres but are unable to swallow capsules are as follows: . L i p i dS t r u c t u r easn dF u n c t i o n s Fats and lipids constitute
approximately 34"/" of the energy in the human diet. ing and performance of periodic competency assessments of 6. Seealso Enteral nutrition, for premature infants problems, ll20t prematurty chronic lung diseaseof, 904-906 definition, 899 osteopenia of, Il17 ' ll28
premenstrual dysphoric disorder, nutrition for, 1113t premenstrual slndrome (PMS), 274 preprandial blood glucose definition, 765 increasein, in qpe 2 diabetes, 769 presbycusis definition, 454 prescription benefits under Medicare, 301 pressor
 agents definition, 432 in foods and beverages,436b MAOIs and,440-441 pressure ulcers definition, 286 in older adults, 294 stagesof, 295b preterm infant, 1118. Arjmandi BH et al: Soy protein has a greater effect on bone in postrnenopausal women not on hormone replacement therapy as evidenced by reducing bone resorption and urinary calcium
excretion, J Clin EndacrinolMetabol88:1048, 2003. See Chapter 20 for an in-depth discussion of PN. MedicalandSur gicalM anagement Primary medical treatment of esophageal reflux is directed toward reduction of acid secretion. The concentration of the botanical or nutrient and whether t-heconcentration is appropriate for obtaining the reported
benefits of the product (i.e., neither too weak nor too strong). Melena, which refers to black, tarry stools, is a common finding associated with peptic ulcer disease in older adults. Although vitamin E delicienry is rare in humans, it is likely to occur in specific sinrations: 1. Consultation with the individual, caregivers, or family members regarding
expected problems and their possible solutions should be initiated early in the course of cancer therapy and should continue in conjunction with follow-up nutrition assessmentand care. The Committee identified the following cutoff poins for evaluation and possible treatment: children with a BMI greater than or equal to the 85th percentile with
complications of obesity or with a BMI greater than or equal to the 95th percentile with or vrithout complications. TotalTriglyceride The triglyceride in metabolism. Of these triglyceride chylomicrons and VLDL remnants are known to be
 atherogenic becausethey activate platelets and the coagulation cascadeand lead to clot formation (Olufadi and Byrne, 2006). All contain the apo B lipoprotein. What steps should you take to make her comfortable with this session? There are two types of adipose tissue in mammals: white adipose tissue and brown adiposetissue. White adipose tissue in mammals are two types of adipose tissue in mammals and brown adiposetissue. White adipose tissue in mammals are two types of adipose tissue in mammals and brown adiposetissue. White adipose tissue in mammals are two types of adipose tissue in mammals and brown adiposetissue. White adipose tissue in mammals are two types of adipose tissue in the two types of adipose tissue in the two types of adipose tissue in the two types of adipose tissue in th
that these infants grow more slowly, thereby requiring careful assessment of both respiratory and nutrition status. Wernicke's disease characterized: the uiad of disturbances movement; but they are not always present
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(tuberculosis), 918 tea intake, cancer risk and,966 TEE. DailyFoodGuidefor Females MinimumNumberof Servings Food Group Protein, foods Milk products Breads, grains Whole-grain Enriched Fruits, vegetables Vitamin C rich B-carotenerich Folate rich Other I]nsaturated fats Nonpregnant LL- to 2$Year-Olds Nonpregnant 2$ to SGYearOlds 5* 7 5* 2
6 + T I Pregnantor Lactating 11- to SO'Year-Olds 7r 3 7 + 5 J L 5 1 1 1 2 5 I I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 2 5 I I 
not a consistentfeature. Therefore, to lower LDL cholesterol, energy derived from saturated fatty acids should be replaced with either monounsarurated or polyunsaturated fatty acids. Metabolic therapy is a term used for a variety of cancer management methods, including unproven and disproved diagnostic methods and treatments (Cassileth and
Vickers, 2003; Richardson et al., 2000). Sdfum. 35 CHAPTER Respiratory alterations can occur anytime throughout the life span; from the premature infant with insufficient surfactant production, to the emaciated teenager with anorexia nervosa, to the young adult with street-drug overdose, to the older adult with severe osteoporosis. Primary
pulmonary system disorders include asthma, cystic fibrosis (CF), and emphysema. The past 30 yearshaveseenperiodsofheightened awareness. Much of the heightened awareness.
parenteral nutrition. Successfuloutpatient use of parenteral nutrition can be achieved when the individual and family are cooperative and receive individual and recei
do. eatright. Seea/soBreast-feeding dietary reference intakes in, 170t nutritional requirements, 186-188 obtaining adequate DF{A and EPA in, 11 0 6 - 11 0 7 omega-3 fatty acids in, 188b osteoporosisand,629 physiology, 185-186, 186f process,education on, 188 lactic acid definition, 587 production,588 Lactobacillusorganisms, in GI tract, 14 lactoferrin
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leurlose, sweetnessvalue of, 43r Lewy bodies, in Parkinson's disease, 1094 Lexiva (Fosamprenavir Calcium, FP$, nuffitional complications, I 005t LGA. Maintaining present body weight or achieving a moderate loss is beneficial. Used witl pemission. Demineralized water should be used if the water contains more than 100 mcg/L. Multiple strategies for
healthyfood choicesand physicalactivily, CA Cancer J Clin 52:92,2002. govl-dms/admehg3.htrnl, accessedJanu ary 15, 2007. The symptoms of tachycardia, sweating, and abdominal pain are so negative that they motivate the appropriate behavioral changes and refrain from overeating. Maximum volumes of CPN rarely exceed 3 L
with typical prescripdons of 1.5 to 3 L daily. After radiation therapy and surgery what side effects mightJanice experiences a slight diffrculty in swallowing (esophagusis in the radiation field), and an increased caloric intake (mosdy caused by
her need to "take care ofl' herself, which resuls in weight gain). Postsurgical complications include delayed gastrits may result in atrophy and loss of stomach parietal cells, with a loss of secretion of hydrochloric acid (achlorhydria)
and intrinsic factor. Moriyama S et al: Evaluation of oxygenconsumption and resting energy expenditure in critically ill patients with systemic inflammatory responses lmdrome, Crit CareMed 27:2133, 1999. "Tell me about your progress so far." r "Why did you choose that number on the ruler? Bob was also given a diet sheet with a briefover view of a no-
added-saltdiet. Nevertheless, to minimize the risk of aspiration, patients should be positioned with their heads and shoulders above their chests during and immediately after feeding. \.4tamin E is a fat-soluble vitamin that exists in eiEht different forms. I euoN KeuerIEauroJ'z 'I uorsserdxe lo salrsnuilV lr,lrre! lUaUra-nOUrartg (1X4)psso18od, {g (rX)
&ossaccuPurd5 (y) sn€e4 fi91)pa8uLreqdossolg fi11$ realqcocoFqnsa1 fifu Ptceg (11) suecnpqy xauar reeuror x?#:1:: qrnol Pu? Rest periods may be needed; this does not impair the training effect from physical activity. Illner K et al: Metabolicallyactivecomponents fat free mass and resting energy expendirure in nonobeseadults, Am J
PhysiolEndorino|Metabol278(2):E308,2000. Sugar alcohols contain, on average, approximately 2 calories per gram. To restore her smile aesthetically, she will either need a removable partial denture or implants. Bolus The_feeding modality of choice when patients are clinically stable with a functional stomach is the syringe bolus method. Defining
success-personal preference Barriers and Complexities to Life Enhancing Changes r Distorted or irrational beliefsversusrational thinking o The internal critic. The esophagus passes through the diaphragm by way of the esophagus passes through the esophag
a Double Whammv! !). Not all individuals respond, but for patients who do respond, clinical trials suggest that a weight loss of about 2 to 20 kg can be expected usually during the first 6 months of treatrnent. PromislowJH et al: Retinol intake and bone mineral density in the elderly:the RanchoBernardoStudy, J BoneMiner Res 17:1349.2002. The roles
of fiber in the physiologyof the GI tract are complex, and our understandingis evolving. The adequate intake (AI) of total fiber is set at 38 g/day for men and 25 g/day for men 
gastrointestinaltract. SeeEsophagitis normal, 656f surgery 659-660 ESRD. Medications A. E. Several ofthese techniques are described in the following paragraphs. Figure 3-5 shows some of the more important lipid stmctures. Alcohol raises both total triglyceride and HDL cholesterol levels. Owen OE et al: A reappraisalof the caloricrequirements of the more important lipid stmctures.
men, Am J Clin Nutr 46:875, 1987. Figure 13-3 focuses on the process of decoding the important connection between the basesequence of the protein that the gene encodes. High-oxalate foods should not be avoided basedon their oxalate content alone when only a
limited amount is bioavailable. The ADA Critical IllnessGuidelinesand the ASPEN Guidelinesand the ASPE
of exerciseon bone massin pre- and women, Cahif TtsneInt 67:10, 2000. It is usually ueated with an iron-rich diet as well as iron supplements. Oral NutritionManagement Strategies Ideally the preferred route of feeding is oral, although individuals who experience nuffition impact syrnptoms such as nausea, anorexia, early satiety, and dysphagia may
resist it. Patiens with an esublished severeprotein deficiencywho continue to loseprotein may require an extended time of earefully supervisednutritional care. Hakim I: Mediterraneandiets and cancir prevenrion, Arch Intern Med | 58(l l): r | 69, 1998. PearlML et al: A randomized controlled trial of a rezular diet as the first meal in g1'necologic
oncologypatientsunJergoing intraabdominalsurgery ObstetGynecol100:230,2002. respiration(seeChapter 35). Beyer,MS, RD KEY TERMS achlorhydria absenceof hydrochloric acid and pepsin in the gastric juice alimentary hypoglycemia low blood glucose
manifesting as weakness, perspiration, hunger, nausea, anxiety, and remors I to 2 hours after a meal atrophic gastritis chronic inflammation of the stomach with deterioration in which cells lining the distal esophagus become
abnormal and premalignant dumping syndrome a complex physiologic response to the duodenum dyspepsia (indigestion) a general term used to describe epigastric discomfort following meals endoscopy a procedure used to view the
esophagus, stomach, and upper part of the small intestine using a flexible tube with a camera epigastric referring to the upper middle region of the abdomen esophagus functional dyspepsia unexplained persistent or recurrenr upper GI discomfort; sFnptoms may include vague abdominal discomfort, bloating, early
satiety, nausea, and belching; underlying mechanisms are not entirely clear, bur may include visceral hypersensitivity to acid or distention, impaired gastric accommodation, altered brain-gut axis, and abnormal gasric motility fundoplication a surgical procedure for the treatment of reflux esophagitis in which the fundus of the stomach is wrapped
around the lower end of the esophagus 654 gastrectomy removal of all (e.g., total gastrectomy) or part (hemi-gastrectomy) of the stomach gastric ulcers lesions that are associated with disruption of tie gastric mucosal barrier gastritis inflammation of the stomach gastric ulcers lesions that are associated with disruption of tie gastric mucosal barrier gastritis inflammation of the stomach gastric ulcers lesions that are associated with disruption of the stomach gastric mucosal barrier gastritis inflammation of the stomach gastric ulcers lesions that are associated with disruption of the stomach gastric mucosal barrier gastritis inflammation of the stomach gastric mucosal barrier gastric mucos
contents into the esophagus; may occur normally or as a chronic pathologic condition heartburn a retrosternal burning related to reflux of gastric contents into the esophagus; may occur normally or as a chronic pathologic condition heartburn a retrosternal burning related to reflux of gastric contents into the esophagus; may occur normally or as a chronic pathologic condition heartburn a retrosternal burning related to reflux of gastric contents into the esophagus; may occur normally or as a chronic pathologic condition heartburn a retrosternal burning related to reflux of gastric contents into the esophagus; may occur normally or as a chronic pathologic condition heartburn a retrosternal burning related to reflux of gastric contents into the esophagus; may occur normally or as a chronic pathologic condition heartburn a retrosternal burning related to reflux of gastric contents into the esophagus; may occur normally or as a chronic pathologic condition heartburn a retrosternal burning related to reflux of gastric contents into the esophagus; may occur normally or as a chronic pathologic condition heartburn a retrosternal burning related to reflux of gastric contents into the esophagus; may occur normally or as a chronic pathologic condition heartburn a retrosternal burning related to reflux of gastric contents in the condition heartburn a retrosternal burning related to reflux of gastric contents in the condition heartburn a retrosternal burning related to reflux of gastric contents in the condition heartburn a retrosternal burning related to reflux of gastric contents in the condition heartburn a retrosternal burning related to reflux of gastric contents in the condition heartburn a retrosternal burning related to reflux of gastric contents in the condition heartburn a retrosternal burning related to reflux of gastric condition heartburn a retrosternal burning related to reflux of gastric contents in the condition heartburn a retrosternal burning related to reflux of gastric contents in the condition heartburn
cancer hiatal hernia an outpouching of a portion of the esophagus, which prevents reflux of gastric contents into the esophagus, which prevents reflux of gastric contents into the esophagus, which prevents reflux of gastric contents into the esophagus, which prevents reflux of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents into the esophagus melena black, tarry stools indicative of gastric contents in the esophagus melena black melen
cells, located on the margin of the pertic glands of the portion of the pertic glands of the portion of the pertic glands of the pertic
duodenal mucosa resulting from the action of gastric secretions and typically H. Exenatide(Byetta) releasedduring nutrient absorption from the cells of the gut and from pancreaticislet cells, which increaseglucose-dependent insulin secretion, slow gastric
emptying, decrease glucagonproduction, and decrease ap- petite. Whattypes of advicewill you offer Ed about his diet? KaputJ, RodriquezRL: Nutritional genomics: the next frontier 16:166,2004. PAL categories beyond sedentaryare determined according to the energy spent by an adult walking at a set pace. In general, fats with shorter fatty acid chains
or more double bonds are liquid at room temperature. Clinicians often want to provide advice. Am Gerontolical J Bosy-WestphalA et al: Effect of organ and tissuemasseson resting energy expenditure in underweight, normal weight and MetabolDisord28(1):72,2004' obeseadults, Int J Oba Related comparison Bouten C et al: Daily physical activity
assessment: betweenmovementregistrationand doubly labeledwater, 81:1019,1996. Many health care professionals remain anxious about recommending dietary supplements. Ultimately the final urine produced is funneled into common collecting tubules and into the renal pelvis. LVH is a risk factor in all age, gende5 and ethnic groups. Intervention
trials are being conducted determine whether regressingLVH will improve the clinical course. In more intenthe meantime, the presence LVFI necessitates siverisk factormanagement (see Chapter 34). See Cerebral palsy; Creatine phosphate CP (creatine phosphate), definition, 587 CPN. Surgery and tamoxifen are planned for treaffnent of her
disease. In the next 3 weeks she will undergo a lumpectomy, followed by 5 to 6 weeks of external beam radiation therapy. 488 PART3 | NutritionGareProcess National Center for Complementary and Alternative Medicine (|{CCAM}): NCCAM funding: appropriations history, www. It can develop 1 to 3 weeks after transplant. Hair-An easy-to-collect
tissue; usually a poor indicator of actual body levels. 924 PART5 i MedicalNutritionTherapy Nephrotic Syndrome Pathophysiology Nephrotic syndrome Pathophysiology Nephrotic syndromecomprises heterogeneous manifest in
xerostornia or candidiasis, which may then impact the ability to consume a diet to appropriately control blood sugar, further deteriorating the glucose control. Because this extra LBM has contributed to an increased metabolic rate, R-IVIRdecreases LBM is lost. Artificial sweeteners (discussed in Chapter 30) and fat substitutes (discussed in C
3) may improve the acceptability of limited food intakes for some people. Slurries o Prepare slurry with thickener and juice or milk. *Fasting variesfrom partial (abstentionfrom certain foods meals) or to complete (no food or drink). Tircker KL et al: The acid-basehypothesis:diet and bone in the FraminghamOsteoporosisSttdy, Eur J Nutr
needles and injecting contaminated blood products. Hercberg S: The history of B-carotene and cancers: from observational to intervention studies. It appears that chromium picolinate and chromium pic
8(3):529, 1998. tials of Hypertension Prevention Collaborative Research Group: Effects of weight loss and sodium reduction intervention on blood pressure: the Ti.ials of Hypertension Prevention, phaseII, Arch Intrn Med 157:657,1997. For example, an individual with a
as antiresorbers on osteoclaststo reduce their bone-degradative activities. Rimm EB et al: Folateand vitamin 86 from diet and supplements in relation to risk of coronaryheart diseaseamongwomen, 279:359,1998. Thomas' usual body weight is 165 lb, which he also reported weighing 3 months ago. According to Thomas, he was easily able to consume to consume the consumer to the consumer 
liquids when his qrmptoms initially began, but within the past 2 weekshe has had difficulty consuming liquids without emesis. He has not been able to consume solid foods during the past 3 months. uf Jo luerue Jnseoru CWg V -xe uondroser JrtsBl Joetso's secord Suqepourer eqr; o Suqd -no Jun eqr xueur Jeqlo pu? Ophthalmologic s)rynptoms generally
respond rapidly to thiamin, whereas ataxia and encephalopathy respond more slowly. Maintainfluidandelectroyte balance . Fear tactics . Avoid skipping meals; prepare foods with high-energy density. Most important, it activates enzyrnes, contributes to energy production, and helps regulate calcium levels, as well as copper, zinc, potassium, vitamin D.
and other important nutrients in the body. Root caries, occurring on the root surfaces of teeth secondary to gingival recession, affect a large portion of the older population. Dietary Guidelines for Americans 2005: www.health.gov/ Dietary Guidelines for Americans 2005: www.health.gov/
Abdominal leakage of gastric contents from a gastrostomysite can causeskin erosion and skin breakdown, leading to infection and peritonitis; however, fewer than 10% of patients experience serious complications. Saunders. AdequatevitaminD intakefrom food, supplements, and supplements, and supplements are contents from a gastrostomysite can causeskin erosion and peritonitis; however, fewer than 10% of patients experience serious complications.
 assessment, poliry development and public health assuranceapply to the nutritional health of a community. If blood glucose levels are dropping before exercise, adding exercise can contribute to hlryoglycemia during exercise. SandersS et al: The impact of coenzymeQto on systolic function in patients with chronic hean failure, J CardFail 12(6):464, 2006
Endoscopy is also imporant in the long-term monitoring of patients with chronic esophagitis and gastritis because of the possibility that they will develop premalignant lesions or carcinoma. DietaryTreatment Calcium, vitamin D, and other micronutrients have been covered previously; combination supplementation of calcium and vitamin D has been
found not to reduce fractures in postmenopausal women in the Women's Health Tiial flaclson et al., 2006). Potential complications associated with illness
 and srress, electrolyte imbalance, and infection (DeChicco and Steiger, 2006). Intense monitoring and specializedcare are required. social. Evidence supports the use of xylitol-sweetened gum as an anticaries agent after meals and snacla (I (ildebrandt and Sparks, 2000; Milgrom, 2006). An algorithm for assessing and recommending dietary
supplements is presented in Figure 18-5. o Aim for a healthy body weight. The most common type of hiaal hernia is the sliding hernia, and the less common form is the paraesophagealhernia (Minal and Balaban, 1997) @gure 26-2). Proteins act as buffers and are cariostatic. Thom T et al: Heart diseaseand strokestatistics-2006 update from the
 American Heart fusociation Statistics Commiftee, Circulation I 13:e85,2006. Many proteins such as kinases, cytokines, and transcription factors that are involved in critical signaling cascadesare subject to mutational changes and altered activities. L304 APPENDIXES Zinc is an essential mineral that is found in almost every cell. In Buchman A, editor
Clinical nutriting in gastrointestinal disease, Thoroughfare, NJ, 2006, Slack Inc. Criteria should be applied to select appropriate candidates for nutrition support (Table 20-1)' Enteral nutrition should be applied to select appropriate candidates for nutrition support (Table 20-1)' Enteral nutrition support (Table 20-1)' En
inadequate to restore or maintain optimal nutritional risks and in 332 PART2 I Nutrition in the Life Cycle communication of information to identified groups. By increasing LBM in proportion to fat, exercisehelps to balance the loss of LBM
and reduction of R-NIR that inevitably accompany even a well-managed 550 PART4 i Nutrition for Health and Fitness weight-reduction program. (Courtesyof Margie Gallagher; PhD, RD, East Carolina Uniztersity.) Lactose Sucrose CHzOH I c-o t/t I 9.0x P ",i\l t/r tl OH T2"x' oHf 9.H o r\l 1/J*,o* tl OH FIGURE 3-3 Disaccharidesof importance in humans:
sucrose(glucoseand fructose) and lactose(glucoseand galactose). Although the overall incidence of decay in the United States has declined, as many as 17%" of children between 2 and 4 years of age have tooth decay (Centers for Disease Control and Prevention, 2005). Therapy Nutrition Medical Weight reduction and decreasing meal size decreases
 the impact of the hiaal hernia. siteslistedin CDC Surveillance HIV/AIDS is found in all sections of the United States population, which reached 300 million people in the United States were living with HIV/AIDS, of which one fourth were undiagnosed. Diagnosis of AIDS NJ 208.5
                                                                      pulation)~150~Guam~Virginls lands, US~47.8~281.7~FIGURE~38-2~Estimated~prevalence rates~for~adults~and~adolescents living~with~HIV~infection~(not~AIDS),~2004-i5~areas. (From~CDC:~HIV/AIDS~surueillance-general~epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/sutoeillance/resources/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/slides/general/epidemiologt[throagh~2004]~hnp://www.cdc.goo/hia/topics/slides/general/e
index.hnn.) CHAPTER Virus(HIV) Disease995 38 I MedicalNutritionTherapyfor HumanImmunodeficiency continues, with most cases in the age-group of 40 to 44 years. Compared to the U.S. population distribution, blacks and Latinos remain disproportionately affected (CDC, 2004; CDC, 2006b). Recendy distinctions between erosive and nonerosive
GERD and daytime and nighttime GERD have been described. Rheumatoidarthritis (RA) as,1059,1059f scleroderma s1'ndromeas, 1056 Sjcigren's as, 1059-1060 systemiclupuserythematosus Index L345 rheumaticdisease(RD) (Continued) temporomandibulardisordersas, 1056 unconventionaltherapiesfor, controversies and limitationsof, 1061
rheumatoidarthritis(RA), 1050-1056 caremanagement algorithm, 1051 f definition, 1042 exercise and, 1052 joint affected by, 1052-1056 overview, 1043t pathophysiology, 1050-1051, 1051f surgery 1052 rheumatoid factor, 1051 for exercise and, 1052 joint affected by, 1052-1056 overview, 1043t pathophysiology, 1050-1051, 1051f surgery 1052 rheumatoid factor, 1051 for exercise and, 1052 joint affected by, 1052-1056 overview, 1043t pathophysiology, 1050-1051, 1051f surgery 1052 rheumatoid factor, 1051 for exercise and, 1052 joint affected by, 1052-1056 overview, 1054 for exercise and, 1052 joint affected by, 1052-1056 overview, 1054 for exercise and, 1052 joint affected by, 1052-1056 overview, 1054 for exercise and, 1052 joint affected by, 1052-1056 overview, 1054 for exercise and, 1052 joint affected by, 1054 for exercise and, 1052 joint affected by, 1054 for exercise and, 1055 for exercise 
definition, 1042 rhinorrhea definition, 1068 in neurotrauma, 1096 riboflavin, requirements, in adolescence, 252t, 253t riboflavin (vitamin Br), 84-85 absorption, 84 deficienry, 85, 86b, 86f definidon, 41 dietaryreferenceintakes, 85, 85t functions, 70t, 85 metabolism, 84-85 sources, 85, 85t, 99t stability and RDA for adults, 99t storage, 84 toxiciry 85
transport,84 ribonuclease, in digestionand absorption,6t, 10 ribonucleicacid (RNA) in proteinsynthesis, 59,61f messenger, definition, 41 from vitamin D deficiency,77-78, 78f risedronate,for osteoporosis, 631 risk assessment, for cancer,972 risk factors definition, 834 for cardiovascular
disease,834, 842-852,87lb combination,873-874 inflammatorymarkersand, 8+8-849 lifestyle,849-850,849b lipoprotein profile and, 843-848 markersin blood and,843-849 modifiable,842b for hypertension,868 essential,866 nutritional,386-387t urinary for nephrolithiasis,948b ritonavir-ABT-538(Norrir), nutrirional complications of,
1005t R-ilIR.SeeRestingmetabolicrate RNA. s00z'Lt7.sMnzq[sxurquv 'snr:qlreoatsoeetnlgtr,ttsllnperaplo eseqopup tr{Sra^ua^o w speolluroleenl seJnparssolrq8rerll:lEte dS rerssew j,lltoty;ii.;K::X, f puutsleurpa11or1uoc-oqeceyd,o",,o' slllrr{tr€ PloteurnaqJ ur uortctueruelddns urnruales :l€ te zteJad V 3llEurnaqu rol {dpraql uotlulnNlpstpawI 0,
uSIdvHS 990T asEaslo 'SO0Z'Ztg1l aru.t'J sa[ tualg lolg'sqrrggeoelso pue uoJI Pue snrnpJ?prolulunaqrqtrm stueneduI suoDBDueJuoJ curz 'reddoc'utntueleseuseld PuBPInUpr,rou, {5:1Ble W rezq\ '0002'I 'r:y6g,ngda6 Eaauafug qtpag p1to74'uonetlnsuor OI{r!\ e go uoder :cruraprdepqo13etp Eur8eueurpue Sunue,rard:drrseqg:uoqeztueSrgqrl?eH PIroA\
'2002 'Apns pello-Duor-oqeceld ' pezruropuerpulTq Zlt 6Z ltwamaqy f -elqnopne|-7 e:strrJtpr?oelsoeetnluI erunlol aEep-rec;ossol arp rreJJelou seopg ururctIA&eiuourelddns: lBla 'gV e {nl,1\ Jo . Pelvic inflammatory disease o Peripheralneuropathy
CD4* T-LymphocyteCategories Category 1: >500 cells/pl Category 2: 200-499 cells/pl Category 3: I month duration) t Kaposi'ssarcoma t Lymphoma, Burkitt's (or equivalent term). De Boeck K et al: Cystic fibrosis: terminolog'y and diagnostic algorithms, Thnrax 61:627, 2006. Normal healthy adults daily
excrete 15 to 40 mg of oxalatein urine, and this can be increased by 50o/" by large intakes of oxalate-rich foods. r A lot number, which is helpful if problems arisebecause it allows the product to be tracked through each stage of the manufacturing process. These rules describe the Mendelian inheritance of a gene, named after Gregor Mendel, who first
deduced that the inheritance of traits was governed by a predictable set of rules. '''. Seeaho Integrative medicine nutrition, 464-466. 1, Phenylalaninehydroxylasedeficienry; 3, Biopterin syntlretasedeficienry; 4, Biopterin syntlretasedeficienry;
concisewording. The etiology of abnormal blood pressure is likely multifactorial. Fruits, vegetables, cereal products, and all of the other foods that generally comprise a diet can be consumed with no restrictions. What is the maximum amount of fat over 24 hours that should be given parenterally to avoid adverseeffecs? J Agric FootlChew
54:3008,2006; Brinkley LJ et al: A further srudy of oxalate and calcium on urinary oxalate and risk of formulation of calcium oxalate kidney
stones, J Am Diet, 4ssoc 93:901, 1993. Zincwas normal at 83 (63 to 147 mg/dl). Plant foods are the major dietary sources of selenium. Individuals should be instmcted on food safetypractices, including the following: avoidance offoods that containuns afelevels of bacteria (raw meats, spoiled or moldy foods, and unpasteurized beverages); thorough hand
washing; special handling of raw meats, poultry, eggs, utensils, cutting boards, and countertops; and storageof foods at appropriate temperatures (below 40" F and above 140'F) (Eldridgeet al., 2001; Charuhas, 2006). Many institutions prescribe a low-microbial or low-bacteria diet (neutropenic diet) for neutropenic individuals. Its use is chiefly based on
empiric knowledge of the existence of microorganisms in the food supply. These diets consist primarily of cookedfoods and unpasteurized beverages. Both gastroplasty and gastric bypassprocedures have the effect of reducing the amount of food that can be eaten at one time and
producing early satiety, boais, or M. Lifestyle, genetics, and oral hygiene also can affect carries risk. ResnicowK et al: Resultsof Go Girls: a nutrition and physical activity intervention for overweightAfrican-American adolescentfemalesconductedthrough black churches, ObesRes 13(10):1739,2005a. Tight-fitting garments. Multiply the grams of protein
per liter by 10. In fact, one study showed 50o/"of recurrent calcium stone formers had hypocitraturia (urinary citrate of 90 days after treatment): Esophageal-fi brosis, pneumonitis Acute affects: Nausea, vomiting Changesin bowel function-
diarrhea, cramping, bloating, gas Changesin urinary function-increased frequency, burning sensationwith urination Acute colitis or enteritis Lactose intolerance Fatique Loss of appetite Late effects (>90 days after treatment): Diarrhea, malabsorption, maldigestion Chronic colitis or enteritis Intestinal-stricture, ulceration, obstruction, perforation,
fistula Urinary-hematuria, cystitis Head and neck area (tongue, la4mx, phagmx, oropharynx, nasophary.nx, tonsils, salivary glands) Thorax (esophagus,lung, breast) Abdomen and pelvis to eradicate malignant cells, to ablate the bone marrow to make room for the engraftment of the infused hematopoietic cells, and to suppressthe immune system of the
recipient to decrease the risk of graft rejection in allogeneic transplants. ONE STARCH EXCIIANGE Selection Tips l. Nutrition and diet affect the oral cavity may affect one's ability to consume an adequate diet and achieve nutrient balance. Cyclosporine and tacrolimus are associated with
hyperkalemia, hypertension, and hyperlipidemia. SegalJBet al: Concentrarionsof B vitaminsand homocysteinein children with sicklecell anemia, SoutbMedJ 97:149,2004. Maintaining appropriate nutrition throughout life can also prevent or delay the onset of somenutrition-related diseases. Continuous Infusion Parenteralsolutions are usually initiated
below the goal infusion rate via a volumetric pump and then increased incrementally overa 2- or 3-dayperiod to attain the goalinfusion rate. and Sodium. Reflecting In reflecting the counselor identifies the client's emotion or feeling and reflects it back. PisaniB, Mullen G: Prevention of osteoporosis in cardiac transplantrecipients, Cun Opin
Cardiol17:160,2002. DietaryFat Studies in persons with diabetes demonstrating the effects of specific amounts of cholesterol on C\rD risk are not available. However, those with diabetes are considered to be at risk similar to those with a past history of CVD. Is part of the problem that
you like those same snacks?" Client: "Oh, you are right. Arthritis and other RDs are among the most orevalent chronic diseases Supplements or Herbs That Complementary Can Be Safely Therapy Considered Disease Medical Nutiltion Therapy for Rheumatic Diseases Supplements or Herbs That Complementary Can Be Safely Therapy Considered Disease Medical Nutiltion Therapy for Rheumatic Diseases Supplementary Can Be Safely Therapy Considered Disease Medical Nutiltion Therapy for Rheumatic Diseases Supplementary Can Be Safely Therapy Considered Disease Medical Nutiltion Therapy for Rheumatic Disease Medical Nutiltion Therapy for Rheumatic Diseases Supplementary Can Be Safely Therapy Considered Disease Medical Nutiltion Therapy for Rheumatic Disease Medi
Rheumatoid arthritis Monitored fast7-10 days; vegetarian Exercise, or vegandiet; appropriate calories meditation, for maintenance for protein unless spirituality, malnutrition present; moderate-fat relaxation diet with emphasison omega-3 techniques fats; modifications as needed for jaw pain, anorexia, etc.; lowmercury
fish 1-2 X/week Weight managemenr; dier adequate Exercise, antioxidants, calcium, folate, acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplementdiet asneeded to meet DRI for antioxidants, calcium, folate, acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exercise, antioxidants, calcium, folate, acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement and foliate acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement and foliate acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement Acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement Acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement Acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Exidence Supplement Acupuncture vitamins 86, By2,D Osteoarthritis TherapiesWithout Adequate Supplement Acupuncture vitamins 86, By2,D Osteoarthritis Supplement Acupuncture vitamins 86, By2,D Osteoarthritis Supplement Acupuncture vitamins 86, By2,D Osteoarthritis Supplement Acupuncture vitamins 86, By2,D Os
copper or coppersalts, devil's claw, thunder god vine Supplementdier as neededto meet DRI for antioxidants, calcium, folate, vitamins Bo, B,r, D; glucosamine and chondroitin Sharkcartilage, SAM-e, S-adenosyl-r,-methionine. 11 I Nutritionin
the Community 335 CHAPTER UseFul EBSITEs American Heart Association http://www. *More phenylalanine(>800 mg) is required in the absence of grosine. In summary the pharmacologic management of cachexia and anorexia requires careful evaluation based on the patient's treatment goals and prognosis and on close monitoring of symptoms and
prescribed medications that may interfere with adequate intake. The HSCT procedure is associated with severe nutritional consequences and requires prompt, aggressive intervention. Because genes are carried on chromosomes, the rules governing the distribution of chromosomes during mitosis and meiosis also govern the disubbution of genes.
Supplemental brochures/materials? The use of branched-chain amino acid formulas is controversial. uoBsnlEz'g 'uuerled peljales q stolc Jrloqueoquorql 3urs., {11q eruer{Jsr urcjq Jo IEsJaAaJpe^lollB seq s8n-rp .uoperrTrqeq ,,3unsnq-to1c,,-ro cn (loqruolp Jo esn dltueceg -er pue uon]JEJururcrq rerpJry Jo uopue^erd uo pasnco; lr la,utroddns
sc,r\e{olts Irloque JoJ tueuDEOIr,tsed eql u1 'tuaserd eq osp deur uorssardxero gceeds; o ssolro 'e;segde'pepnlcco sl vlw rJel agr 31.sdrrrs d-rosuespue Joloru agr segddns lreue srgr asneJeglpog agr ,srsared Jo eprs elrsoddo eqt uo sgrurTJosrrrgep Lrosuas glr,lo' sacnpo-rduorsnlrro VIW uV .srrrgIp crSolorneuJo suonel -lelsuoJ snorJEA 3ur4aas..
(qpetoadsnseq uec ftolrrrel re1 tno -nrsrlorqaJac .repcnred e uonJreJur uy .lrrrcurouqe etp Jo srapros!Oc;6o;ornaprol {deraql uollulnN luo!pahl I ' U l l d v H S 'alrl ltr1enb peseerJepe dpuanbasuoc Jo pue 'sracp uols 'suopcegulJo {slJ erfl sescaJcurturu ur ssol tl{8le1ysuopraJur tuo+ errurpuadxe l8reue psrq req8rq or Lrepuocasaq deru ssol tq8rarn
sawJ rer.FoIIFS uI 'Surpea;-;1as pa-rredurrpue ecuepuedepur pesearJapulo { Suppse.l elvrur poo; erenbapeuruB dq pasnec u ssol tq8re,r. Like drugs, food requires numerous enzymatic genes, proteins, and environmentalfactors interact to processesin order to be digested, absorbed, and used by causethe physiologic dysfunction that results in disease;
the body's cells. Forty percent to 900/" of newly infected develop flulike symptoms: fever, maculopapular rash, oral ulcers, arthralgia, loss of appetite and weight loss, malaise, inflamed ly-ph nodes, pharyngitis, and myalgia (diffuse muscle pain). However, patients tend to choose liquids, and weight loss, can be deterred by drinking too much
calorically denseliquid suchasmilk shakesand soft drinks. In addition to nutrition programs, what other health and safetyprograms and resources are available in your community for this family? With thiamin such as whole grain or
enriched breads and cereals should also be incorporated into the patient's diet. Between-mealsnacksshouldincludecariostatic Tooth loss (edentulism) and removable prostheses (dentures) can have a significant impact on dietary habits, masticatory function, olfaction, and nutritional adequacy. She enterains guess frequendy and loves to cook- Nell is 5
ft 2 in tall and weighs 170 lb. Therefore a waisr circumference fless than 35 inchesfor women and 40 inchesfor men is recommended (see Chapter 21). Smallweightlosses (10 to 20 lb) can improve risk factors such as LDL cholesterol, HDL cholesterol, triglycerides, high blood pressure, glucosetolerance, and CRP levels, even if an ideal BMI is not
achieved. Weight loss has been correlated with lower fibrinogen and CRP levels (Tchernof et al., 2002). Newer peripheral devices have made it possible to infuse PPN with a single catheter placed for up to a month. Beans, peas, and lentils are also found on the Meat and Meat Substitutes list. For example: Client: "I really like eating out, but I always
eat too much, and my blood sugarsgo sky high." Nutrition Counselor: "You are in the majority when you say that you like eating out. Gastric bypassinvolves reducing the stomach to the stomach to the small intestine by means of an intestinal loop. However,
decreases in lean body mass may be occurring, although actual weight may appear stable. American Dietetic Association: the role of registered in health promotion and disease prevention programs, J Am Diet Association: the role of registered dietitians and dietetic technicians, registered in health promotion and disease prevention programs, J Am Diet Association (ADA): Position of the Arnerican Dietetic Association (ADA): Position (ADA): Position (ADA): Position (ADA): Positio
in GysticFibrosis Index MlnlmumFequency Indication Every 3 mo Every 3 mo Routine care Routine ca
care, diagnosis Weight loss, growth failure, clinical deterioration, diagnosis Routine care, diagnosi 
Serum or plasmac-tocopherol value Albumin level Annually 
al: Nutritional assessmentand management in cystic fibrosis: e consensus committee, AmJ Ctin Natr 55:108, 1992. By means of the bicarbonate-carbonic acid and phosphate bu-ffer system, it also provides buffering action to neutralize bacterial acid metabolism. Studies suggest that the glycemic index of a diet has a predictable
effect on blood glucose levels and may have use in the dietary management of diabetesand hlperlipidemia (Brand-Miller et al., 2002). better weight loss compared with those given links to educational websites (Tate et al., 2002). better weight loss compared with those given links to educational websites (Tate et al., 2002).
nutrition care in disease. Kahn et al: The impact of overweighton the development of diabetesafterhearttransplantation, Clin Tian Ehnt 20:62,2006. (Copyright Community Research Initiatiae on AIDS, l,lew York, 1998. Couttesy AIDS Community Research Initiatiae on AIDS, l,lew York, 1998. Couttesy AIDS Community Research Initiatiae on AIDS, l,lew York, 1998. Couttesy AIDS Community Research Initiatiae on AIDS, l,lew York, 1998. Couttesy AIDS Community Research Initiatiae on AIDS, l,lew York, 1998. Couttesy AIDS Community Research Initiatiae on AIDS, l,lew York, 1998. Couttesy AIDS Community Research Initiatiae on AIDS, l,lew York, 1998. Couttesy AIDS Community Research Initiatiae on AIDS, l,lew York, 1998. Couttesy AIDS Cout
jirouecii pneumonia, cytoceflular immuniry: Pneumorystis megalovirus (CM\,), candidiasis, or rare Kaposi's sarcoma. How would you askMatthew about the supplementshe's taking? The child who already exceedshis or her optimal adult weight can safely
experiencea slow weight loss of 10 to 12 lb per year until the optimal adult weight is reached. Could you ask your grandchildren which of this long list of low-saturated fat snacks they like and then buy them?" for Change 503 Gounseling 19 | Intervention: CHAPTER Agreeing Witha Twist This strategy involves offering agreement, but then moving the
discussion in a different direction. Another inborn error of amino acid metabolism, classic homorystinuria, is of particular interest because tled to the realization that an elevated blood level of homorystinuria, is of particular interest because tled to the realization that an elevated blood level of homorystinuria, is of particular interest because tled to the realization that an elevated blood level of homorystinuria, is of particular interest because tled to the realization that an elevated blood level of homorystinuria, is of particular interest because tled to the realization that an elevated blood level of homorystinuria, is of particular interest because tled to the realization that an elevated blood level of homorystinuria, is of particular interest because the realization that an elevated blood level of homorystinuria, is of particular interest because the realization that an elevated blood level of homorystinuria, is of particular interest because the realization that an elevated blood level of homorystinuria, is of particular interest because the realization that are the realization than the realization that an elevated blood level of homorystinuria, is of particular interest because the realization that are the realization than the realization than the realization than the realization than the realization that are the realization than the
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pass their own nasogastric tube for intermittent or nighttime feedings. It should be remembered, though, that aspiration is always a potential risk. Some evidence supports the idea that aspartame, saccharin, and sucralose may inhibit bacterial action because neither provides a usable substrate for streptococcus bacteria (Mandel and Grotz, 2002)
 Within the gene, each specificsequenceof three deoxyribonucleicacid (DNA) bases (codons)directs the cellsprotein-s4thesizing machineryto add specificamino acids. For example, the basesequence (DNA) bases (codons)directs the cellsprotein the pathology of upper GI disorders is not clear, and one cannot generalize qdrlptoms to all
spicesat all doses. In some of the published research, tests have been done with isolated tissues or in animals and humans with dosesof spicesfar in excessof what people would consume in a normal meal. Avoid acidic and highly spiced foods when inflammation exists Lose weight if overweight. See a/so Megaloblastic anemlas megaloblastic, definition, 810
421,81|, 812t microcy'tic, definition,411,810 morphologic defi
protein-energymalnutrition, 828 of vitamin B12deficiency,93 pernicious,819-823. when selectins an enteral formula. RD is thought to have an autoimmune component. Part D contracted pharmacyensuresthe home healthagency, VNA, or other entityis workingwith the State to arrange coverage for ancillaryservices. Images have the power to move
your emotions like few things in life. Sugarfree chewing gum may help to reduce the caries risk (Milgrom, 2006). conventionally grown marion berries, strawberries, and corn showedstatistically greater amounts of phenolic compounds
(phytonutrients with antioxidant capabilities) in the organically grown produce compared to that nutrition assessment and therapy recommendations include individual evaluation for environmental triggers; a diet of wholesome
 foods to provide optimal energy, balanceof nutrients, and phytonutriens; correction of diagnosed energy and nutrient deficiencies or excesses; careful attention to medication-food-nuuient interactions; frequent monitoring to maintain healthy pulmonary status; and education of the patient, family, and community (American Academy of Allergy, futhma
and Immunology [AAAAII, 2002; Department of Health and Human Sen'ices [DHHS], 2006). "Would you say that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you thought about changes that you are eating a low-saturated fat diet now?" o "During the past 6 months have you are eating a low-saturated fat diet now?" o "During the past 6 months have you are eating a low-saturated fat diet now?" o "During the past 6 months have you are eating a low-saturated fat diet now?" o "During the past 6 months have you are eating a low-saturated fat diet now?" o "During the past 6 months have you are eating a low-saturated fat diet now?" o "During the past 6 months have you are eating a low-saturated fat diet now?" o "During the past 6 months have you are eating a low-saturated fat diet now?" o "During the past 6 months have you are eating a low-saturated fat diet now?" o "During the past 6 months have you are eating a low
bicarbonate sufficient to neutralize endogenous acid improves calcium balance and bone. The five-carbon sugar alcohol, rylitol, is considered anticariogenic. It has been estimated that many public water systems, built using early twentieth century technology, will need to invest over $138 billion over the next 20 years to ensure continued safe drinking early twentieth century technology.
water (ADA, 2003b). People cannot become infected with avian flu by eating properly handled and cooked eggs or poultry (McNally, 2006). Fiber-containing formulas or itool-bulking medicationmay be helpful, and adequatefluid must be provided. Cocbrane BarnesP et a,l:Complemmtaryand ahematiaemedicineaseamnng adults, UnitedStates2002, CDC
AdvanceData Report No. 343, May 27,2004. transplantation, HassounHT et al: Post-injurymultiple organ failure: the role oftlre gut, Shock15:1,2001. americanheart.org/ CDCwebsite Dietary Guidelines forAmericans. Depending on the diuretics prescribed, increased dietary intake of potassium may be required (see Chapter 16). 560 PART4:
Nutritionfor Healthand Fitness aria is a 45-year-old white woman who hastried numerous weightJoss programs. Insulin doses should be reduced in anticipation of exercise after a meal, depending on the duration and intensity of the exerciseat25yo Voz-* for 60
minutes required a 50% reduction in mealtime rapid-acting insulin, respectively. Jeqlo pue snsoleruaqlfue sndnl cnuetsds ur uoraJretur 1 edla ^ Iencsed ,f neereqoueg '.snsoreuaqrLra Z00Z'9t ZZtaI loJrtundqA sndnl onuetsds qlrn
sruaned ur slueprxouue e{Btur Jo Lrererp peseerJeppue sntets tueprxonuu perredurl: F te JS eeg sa3uaralau 3ro'sua.rSo[slrur,n uorlPpunol Pr.uJapojalss sr.uBlulo3'gru'!!,r\, saseasr0 urISpuPlPlalalsolnrsnru puPsrluquv]o alnlrlsullPUorlPN 3.ro'
errrneug',trrn tr uorlPr3ossv Pr6lP, {uoJqrJ leuor}eN stlpunaqur0l {dpraql uotltrlnNlpctpaw: 0t ulldvH3 \ensuremath{\mathchanker}90T asEaslo 't002 'S:0Sunaqy srflr,quv'V\r1-uonoruordlrltpcy puuteIC 'sFIl{rrV erfl :snrrrpreoelsoeau{ qtt.&\srlnpereplo eseqo Pue ur ssollq8ralr f:eierp pue asrJJexE:l? i oonn n e c t i o n s C o m p l eG x e n e t i c - N u t r i tG In contrast to most
single gene disorders in which the change in the DNA is known, the abnormal protein can be identified and analyzed, and the resulting phenotype is clearly defined, chronic disorders (e.g., cardiovascular disease, cancel diabetes, osteoporosis, infl ammatory disorders) are far more complex. The % Daily Value (Dg listed on the label indicates the
percentage of the DV provided in one serving. The mental processing provides new ideas that can promote actual change. E L00C'6 lrrdy passarre'dse'scrEolorgrruonrsod S002 I |7S utnaq[ stltrquv '.{e,un5uorteurruexguortrrlnN pue rIrlEeH n n77:fi1q'g00Z'asoasrp TsuonecrlqndTSro'lSoloreurnaq.r'.,n leuorleN prrr{I arll :prJecrJnJosle^Jlruruesol
drgsuonele.r rxwwnaqr.nt vua&anSolorg:18ololeurneqggo e3e1o3 uerrreurv pue srcnpo.rd .7997,7:99 &rep pur 'uletord 'spoo;qcr-r-aurrnd;oa4eru1:F te )H ror{J runaqy 't002 'I Funaqy 't002 'I Funay 't002 'I Funay 't002 'I Funaqy 't002 'I Funay 't002 'I Fun
seurlepmC:lSololeurnegg; o a8e11o3 uerrraruv ror{J ta )H. Resources that provide reference to the original research are also preferable. ur polred yesnedoueunsodeqt Surrnp sserueuoq, trolJo tueru -do1a, rapeW ur elor roferu r deld o1 rq8noqr s ereqdsrureg urarfrJou eqr sepntnel raq8g aqt ur slcnprlrpu ur uDIS Jo eqr lq uorteruJoJ unutlr Jo e1c., (c
raununs-Jelur \ er{I C '(SOOZ''1ela asnorpro4:ggg7 '8urr.roa pu? A schedule is based on four to six feedings per day administered for 20 to 60 minutes. Therefore, with respect to longterm effectiveness of weight-loss programs, the loss of fat masswhile maintaining FFM and thus the resting metabolic rate (R-NIR) seems desirable (Stiegler and
Cunliffe, 2006). J ApplPhysiol Butte NF et al: Energy requirementsderivedfrom total energy expenditureand energydepositionduring the first 2 years of Irfe, Am J Clin Nutr 72:1558, 2000. Strict blood glucose control lessensmicrovascular complications in patiens with type I and type 2 diabetes (see Chapter 30). fortified. Vegans should have a reliable
source of vitamin B12such as fortified brealdast cereals, soy beverages, or a supplement. HEnnr FnlluRE Normally the heart pumpsadequateblood to perfusetissues and meet [email protected] 3,f.1). The primary associated complication is infection. Other homopoll'rners called beta glucopyra nose) occur with branching, which makes them
less linear than cellulose and therefore more soluble. govlhgmis/elsi/elsi.htrnl www.genome.gov/ElSI www.utoronto. A prospectivestudy that compared weight loss, complications, and early outcome of co-morbidity resolugastricbypass tion in patientswho underwentlaparoscopic (LGBP) versus laparoscopicadjustablesilicone gastric banding (LASGB)
showedsimilar improvements in comorbidities. Early after surgery, LGBP patients losemore weight than LASGB patients, but further follow-up is needed to determine the relative long-term efficacy of these procedures (Kim et a1., 2006). The counselor should encourage the client to explore ambivalence to change by thinking about "pros" and "cons." Some
questionsto ask are: . National Marrow Donor Program (|{MPP}: Typu of transplants, from http://u, 'ww.marrow.org, accessedMay 30, 2006. Height(in): 125 130 70 140 WOtvlEN 145 Weight(lb): 150 BodyMassIndex: (numberfromcentercolumn) 155 160 E Usuallyeatsalone Q Does not eat anythingon one or more days each month El Has a poor
 appetite I ls on a specialdiet O Eats vegetablestwo or tewertimes daily E Eatsmilkor milkproductsonceor not at all daily E Eats fruit or drinksf ruitiuice once or not at all daily I Eats breads, cereals, pasta, rice, or other grainsfive or fewertimesdaily B Has difficultychewingor swallowing I Has more than one alcoholicdrink per day (if woman); more than
two drinksper day (if man) I Has pain in mouth, teeth, or gums Living Environment El Lives on an incomeof less than g6000 per year (per individualin the household) I Livesalone fl ls housebound O ls concernedabouthomesecurity E Lives in a home with inadequateheating or cooling fl Does not have a stove and/or refrigerator I ls unableor prefersnot to
spend moneyon food (27 For the remainingsections, pleaseask the individual which of the statements (if any) is true for him or her and place a check by each that applies. Starzltansplantation Institute University of Pittsburgh, Pennsylvania iX CONTRIBUTORS K ellyN.McKeanth (27 For the remainingsections, pleaseask the individual which of the statements (if any) is true for him or her and place a check by each that applies.
Children's Hospital and Regional Medical Center Seatde, Washington Mueller, PhD, RD, CNSD, Charles CDN Nutrition Research Manager Weill Medical College Cornell University New York, New Y
prevention basedon an understanding of the genesand environmental factors involved and the metabolic and physiologic consequences ftheir interactions. Self-monitoring also gives clues to the occurrence of relapses and consequences ftheir interactions. Self-monitoring also gives clues to the occurrence of relapses and consequences ftheir interactions.
underlying cause of anemia may be confounded by the use of powerful acid-suppressing medications and bleeding that may also impact anemia (Banerjee and Bishop, 2005; Sharma et al., 2004). In end-stage hean disease gardiac transplantation becomes necessary for survival. See Conceptual Framework on the inside back cover. The sessionshould be
closed with an encouraging statement and reflection about how the client identified this plan personally. Magnesium dietary deficits seem to have little effect on bone tissue, but one report suggests that adequate intakes of magnesium improve BMD (Ryder et al., 2005). "What would need to be different for you to consider making new or
additional changes in your eating?" . Guthrie develops a bacterial inhibition assay for measuring blood phenylalanine develops a bacterial inhibition assay for measuring blood phenylalanine (see
Chapter 14). The nutritional requirements of pediatric patients with cancer are similar, with an adjustment for activity level, to those of morbidity in critically ill patients, but knowledge of effective prevention and treatment is still incomplete. The following sections detail
the known roles of nutrients in the growth, development, and maintenance of the oral cavity structure, bones, and tissues. Morin K: Fluoride: action and use, MCN Am J Matem Child. SeeRespiratoryquotient RIA (renaltubular acidosis), 928 definition, 922 rumination disorder, nutrition, I I 13t Russiandietarypatrerns, 352t tr J saccharin as excipient, 449b.
sweetnessvalue of, 43t S-adenosyl-l-methionine (SAMe), in liver disease, 722 safery food and water, 330-332 resources for, 332t SAII (subarachnoid hemorrhage), I 080 definition, 1068 Saint John's wort, supplemental, ef6cacy, reviews, 479t salicylates, for rheumatic diseases, 1047 saliva, enzyrnes of, digestive, 6t, 9 salivary amylase, in digestion, 6t, 9
salmonella, 32St salt, restriction, in hlpenension management, 876 salt-resistant hypertension, 872 definition, 865 salt-sensitive hypertension, 872 definition, 872 d
sarcopenia, 291 definition, 286 sarcopenic obesity, 291 definition, 286 satiety, sensory-specific definition, 486 satiety, sensory-specific definition, 486 satiety, sensory-specific definition, 533 overconsumption and, 540-541 saturated fatty acids (SFAs), 52 definition, 486 satiety, sensory-specific definition, 533 overconsumption and, 540-541 saturated fatty acids (SFAs), 52 definition, 533 overconsumption and, 540-541 saturated fatty acids (SFAs), 52 definition, 533 overconsumption and, 540-541 saturated fatty acids (SFAs), 52 definition, 533 overconsumption and, 540-541 saturated fatty acids (SFAs), 52 definition, 533 overconsumption and, 540-541 saturated fatty acids (SFAs), 52 definition, 533 overconsumption and, 540-541 saturated fatty acids (SFAs), 52 definition, 540-541 saturated fatty acids (SFAs), 540
definition, 865 SBS. Tonsils are lymphatic tissueand part of the immune qystem. Multiple stones occur in these children and causerenal failure and early death. Clin Exper Albrg Rn 6:10,2006. For example, a lifestyle with a diet regimen consisting of small frequent meals rather than two or three meals per day may expose the teeth more frequently to
fermentable carbohydrates, increasing the risk of caries. The importance of positive eating habits needs to be stressedas a component of preventive in the management of delayed nausea and vomiting (occurring 24 to 96 hours after
treatment); other antiemetic agents, including neurokinin I (NK-1) antagonists (aprepitant), corticosteroids, and dopamine antagonists such as phenothiazines (prochlorperazine) and benzamides (metoclopramide) -"y be used (Ettinger et al., 2006; Von Roenn, 2006). Although growth hormone, insulin-like growth factor-I, and a few other agents are
anabolic, their use is not practical. Idiopathic thrombocytopenicpurpura. SampleMenu:TypicalLunchWith Increasedilourishment Typical lrtnch Galorlee Soup Tomato (Vzc) mrde with water 50 SandrYlch Bologna (1 oz) Cheese (2 oz) Mayonnaise (tsp) Bread (2 slices) 214
34 t24 Carrot-raisin with mayonnaise 153 Dessert 91 BeYemge Whole milk (% c) TOTAL KTLOCALORIES r62 36 Salad Dessert Applesauce(% c) Tomato, made with French dressing Calories Boosted lrtnch Soup Baked apple (with zugar and margarine) r 88 Beverage 80
614 Fortified milk. It's a question that is causing huge discussion after a controversial Sony blog talked about 1080i, with so-called Full HD or True HD sets having 1080p. HD Burnout Paradise designer Simon Phipps wrote on the Sony blog:
"Plus heaps more, including: 1080i support for PlayStation 3 owners with "almost HD" is a real dumb move- just because you don't like it doesn't make it a real HD res. This endothelial dysfunction results in the production of less nitric
oxide, a keyvasodilator, and the blood vesselbecomesmore constricted. It also becomes more permeable and eventually an early lesion known as a fatty streak (Figure 32-2). Many herbs, spices, and seaweeds supply magnesium, such as agar seaweed,
coriander, dill weed, celery seed, sage, dried mustard, basil, cocoa powder, fennel seed, savory cumin seed, tarragon, marjoram, and poppy seed. During the first month after transplantation, a highprotein diet (1.3 to 1.5 g/kg body weight) with an energy intake of 30 to 3 5 kcal/kg is recommended to prevent negative nitrogen balance QViggins,
2002). However, surplus carbohydrate energ'y makes individuals fatter not by lipogenesis but by suppressing fat oxidation (Hellerstein, 2001). and Incidence Pathophysiology Often ECC occurssecondaryto prolonged botde-feeding, especially at night, of juice, milk, formula, or other sweet.tt.d b.n"t"ges. Distinguishing normal illness fluctuation from an
intentional attack depends on having in place a system for preparedness planning, rapid communication, and fiber Rich sources of energy, potassium, magnesium, and fiber Rich sources of energy, and fiber Rich sources of energy, potassium, magnesium, and fiber Rich sources of energy, potassium, and fiber Rich sources of energy, and fiber Rich sources of energy, and fiber Rich sources of energy of e
magnesium, protein, monounsaturated fats, National Institutes of HealtJr md Human Seruices, NIH PublicauonNo. 06-+082,2006. fPhysical activity level (PAL) is the physical activity level that is rhe ratio of the total energy
expenditure to the basalenergy expenditure. Unformrnately someof the medications desire to eat (seeChapters 16 and 37). Lifelong dietary restriction of phenylalanine mouth that can further compromise the patient's desire to eat (seeChapters 16 and 37). Lifelong dietary restriction of phenylalanine mouth that can further compromise the patient's desire to eat (seeChapters 16 and 37). Lifelong dietary restriction of phenylalanine mouth that can further compromise the patient's desire to eat (seeChapters 16 and 37).
nonvegetarian diets that exclude iodized salt, fish, and seaweed have been found to contain very litde iodine. Mechanisms of fluoride action on teeth are: (1) when incorporated into enamel and dentin along with calcium and phosphorus, it forms fluoroapatite, a compound more resistant to acid challenge
than hydroxyapatite; (2) fluoride also promotes repair and remineralization of tooth surfaces with early signs of decay (incipient carious lesions); it helps to reverse the decay process while promoting the development of a tootl surface that has increased resistance decay; and (3) fluoride also may help to deter the harmful effects of bacteria in the
oral cavity by interfering with the formation and function of microorganisms. Depression o Anxiety disorders . Underlying mechanisms are not entirely clearl visceral hlpersensitivity to acid or distention, impaired gastric accommodation, altered brain-gut axis, and abnormal gastric motility and emptying have all been considered (Fahardo er al., 2005).
Smith, 2005). Ultrafiltration providesadditional pressureto squeeze extrafluidthroughthe membrane. Whether to provide or withhold nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in "end-of-life" decision making. DietaryReference Intakes Americanstandardsfor nutrition support is often a central issue in the central i
FNB of the IOM. The secretis to individualize the program with readily availablefoods that the individuals, perhaps as high as 5070, have inadequate intakes of vitamin K ptimarily because their consumption of dark-green lea$' vegetables is so low. See
ity of the populationbeingsrudied. These standards often serve as a basis for assessingthe qualiry of care provided to the patient. 12.2mg of sodium fluoride contains 1 mg of fluoride ion. Signs and symptoms of CLD and BPD include hypercapnia, tachlpnea, wheezing, dyspnea, recurrent respiratory infections, cor pulmonale, and a characteristic
radiographic appearance of the lungs. This can result in large increases not leave levels flV-assermanand Zinman, 1994). Because of anticipated continued ventilator dependence and hepatics impairment, gastrostomy (J-tube) tubes were surgically placed. Patientswith cardiopulmonary, renal, and hepatics are hepatics and hepatics and hepatics and hepatics and hepatics and hepatics are hepatics and hepatics and hepatics and hepatics are hepatics and hepatics and hepatics are hepatics and hepatics and hepatics are hepatics and hepatics are hepatics and hepatics are hepatics. The hepatics are hepatics are hepatics and hepatics are hepatics and hepatics are hepatics and hepatics are hepatics and hepatics are hepatics. The hepatics are hepatics are hepatics and hepatics are hepatics and hepatics are hepatics and hepatics are hepatics. The hepatics are hepatics are hepatics and hepatics are hepatics and hepatics are hepatics and hepatics are hepatics. The hepatics are hepatics are hepatics are hepatics are hepatics and hepatics are hepatics. The hepatics are hepatics are hepatics are hepatics are hepatics are hepatics. The hepat
failure are especially sensitive to fluid administration. Malone AM: Metlods of assessing energyexpenditure and the intensive care unit, Nu* Clin Pract 17:21,2002. High intakes of carbohydrate can trigger large releases of insulin. Genomicsmore accurately describes this complex, interactive situation. Water-soluble lubricant I l . A special r.ulnerability
exists during the adolescent growth spurt. It usually has greater severity in the presence of more aggressivecancersin the later stagesofthe disease (Andrassy and Chwals, 1998). Other pertinent assessments focusion from low-fiber food selections, or
diarrhea from impaired peristalsissecondary to lack of oxygento the gastrointestinaltract. It improves BMD, especially of the lumbar spine, and it may reduce the recurrence of fractures in patients with osteoporosis. Using fluoroscopy, a radiologic technique, tubes can be guided visually into the stomach or the jejunum and then brought out through the
abdominal wall to provide thre accessroute for enreral feedings. Hairy leukoplakia, oral . 2, Phosphofructokjnasereaction: modulated by ATR positively modified by AMP and ADP, usesAIP; is reversed by specific phosphatase in gluconeogenesis. A large protein load may otherwise necessitate more frequent dialysis, often in a patient who is not
hemodlmamically stable, and the patient is at high risk for dialysiscomplications. Therefore this issue quite controversial. The amount of protein recommended is influenced by the underlying cause of ARF and the presence of other conditions. (see Chapter 18). "Could we talk about your diet records to identifi problems which we could solve?" The
following approaches might be used during a follow-up contact: . Activity/Exercise Physical activity involves bodily movement produced by the contraction of skeletal muscles that requires energy expenditure in excessof resting energy expenditure in excessor resting excessor
performed to improve or maintain one or more components of physical fitness. Activities that require frequent bending should be avoided, and raising the head of the bed 4 to 6 inches can reduce the likelihood ofnocturnal reflux. Balancedmicronutrient intake for children includes 45 - 60"/" of kcal from carbohydrete, 25-40"/o from fat and l0 - 35"/o
from protein. Secretion of abnormally thick, tenacious mucusbyexocrineglands Respiratotyorgans Pancreas Reproductive organs Sweatglands Salivaryglands Intestine Liver Shortstature and lowbodyweight. html, accessed May 30, 2006b. Gas exchange is the major function of the pulmonary system (Figure 35-2). Avoidance of excess phosphorus.
also increases with the number of cigarettess moked each day; low-tar brands do not reduce the risk. 374 PART 3 i Nutrition Gare Process A mutation in any one of these genes can result in accumulation of cr-keto acids in the uriie, which produces an odor similar to maple s1mrp. Ang-Lee MK et al: Herbal medicines and perioperative care,
/AIWA286:208,2001. Slurry shortcakewith juice and servewith pureed strawberries. SeeShort-bowel s1'ndrome SBS (short-bowel syndrome), definition, 674 SCFfu. In some forms of Prader-Willi. The exception lower atherosclerotic
and subsequently (FH) who is in patients with familial hypercholesterolemia can have a triglyceride-enriched HDL3 fraction that is proather ogenic (Ottestadet al., 2006). DASH uses foods high in the minerals calcium, potassium, and magnesium, which when combined helps lower blood pressure. Do parents have the right to have their children, if they
are minors, tested for a genetic diseasewithout the children's consent?Do they have the right to withhold the results from the children? Del4tdration is the rnost cornrnon cornplication of home tabe feed.ing! Discuss common problems that may come up and provide guidance for resolving them. Inadequate maternal nutrition will consequently impact
tooth development; Thble 25-1 details the effects of nutrient deficiencies and the presence of fluoride on tooth development; Figure 25-1 shows the parts of a tooth. africanum; spreadby inhalation of organisms dispersed as droplets from the sputum of infected persons (the bacterial adendroplets can float in the air for several hours) 899 900 PART5 |
MedicalNutritionTherapy During fetal life, from birth to maturity and throughout adulthood, the pulmonary system is interested into a continuum of medical care and
services, including social, psychosocial, and nutritional services (Panel on Clinical Practicesfor the Tleatment of HIV 2007). 852. When high-carbohydrate is in the form of simple sugars), lipogenesis does occur but does not represent a significant contribution to fat stores (McDevitt et al
2001). Mother-to-child transmission of HfV infections in the United States continues to decline; reductions can be attributed to prenatal HfV counseling and testing at the testing and testing and testing at the testing and testing at the testing and testing at the testing 
 susceptibleto a different set of diseases, handlesenvironmentaltoxins differendy, metabolizes molecules differendy, and has slighdy different nutritional requirements. These exciting discoveries are revolutionizing the way people think about health and diseaseand the clinical aspects of medicine, pharmacology, and nutrition. Obesity, alcohol and its
degradationinto acetaldehyde, nitrites, a diet low in selenium, fruits and vegetables, and cereal fiber have been implicated in increasing the risk of esophagealcancer; therefore the same advice for maintaining good health is appropriate for persons with GERD. At this point, the patient needs help in finding a change strategy or goal that is accepable
achievable, and appropriate. Sedman PC et al: Preoperative total parenteral nutrition is not associated with mucosal atrophy or bacterial translocation in humans, Br J Surg 82 1663, 1995. Federation of American Societies for Experimental Biology (FASEB), Interagency Board for Nutrition Monitoring and Related Research: Tbird reporton natrition
monitoring in the United States: executiaesamn'tary, Washington, DC, 1995, U.S. Government Printing Office. After LDL formation, 60% is taken up by LDL receptors on the liver, adrenals, and other tissues. At next scheduledtime - 24Occ Formula+ 240 cc water. Furthennore, any exposure, including second-hand smoke, increases the risk (fhom et
il.,2006). SeeC-reactive protein definition, 833 Cryp tospori dium p aruum, 32 fr CSFII (Continuing Survey of Food Intake of Individuals), 314-ll5 C u b a n d i e t a r yp a t t e r n s ,3 5 4 t cultural communication styles, 492t cultural sensitivity definition, 489 for multicultural counseling, 491 cup, weaning from
breast or botde to,215 cure definition, 959 of cancer,962b CV\rH (condnuous venovenous hemofi ltration) for acute renal failure, 926 ryclamate, sweemessvalue, 43t ryclic central parenteral nutrition, definition, 506 ryclosporine after liver transplantation, 726t CYP enzl'rnes, genetically altered activiry drug metabolism and, 435 cystic fibrosis, food
                                                                                                                                                                                                        ... time Primary preventionof hypertensioncan improve quality of life and costs associatedwith medical managementof hypertensionand its complications. A strategyfor the population would be to reduceblood pressurein those with
 prehlpertension(above120/80)but belowthe cut pointsfor staget h)?ertension.A downwardshift of 3 mm Hg in SBP would decreasethe mortality from stroke by 8"/" and from coronary heart diseaset:y 5% (Appel, 2003). Men experienceearlier incidence than women. senceydnlnurspaau Jo JBaIJot alqeun luonuarer Jo ssol snloq eSersIBJoeJe eS . This is
true even in diseasesin which the underlying causehas been eliminated completely, such as in vesicoureteral reflux, cortical necrosis of pregnancy, or analgesic abuse. Physical activity should be an integral part of the treatment plan for persons with diabetes. What dietary factors are involved with prostate cancer? YatesJSet al: Prevalence of
complementaryand alternative medicineusein cancerpatientsduring treatment, SappnrtCa, re Cancer 13:806,2005. Because of the pulmonaryconsftaintsin peoplewith lung cancer, purchasing and dyspepsia. Thus providing foods,
beverages, and nutritional supplements in the forms and at the times best tolerated by the patient is essential. Proliferation of new tissue growth. Index anothe Glycemic Absorption Glucose Dietary carbohydrates are digested into
glucose, fructose, and galactose through the actions of ct-amylase and brush border digestive enz)rynesin the upper GI tract. *Equivalent in protein to 5 oz of animal protein; at least three servingsper week should be from the vegetable proteins. Tivo reports did not find an association between vitamin A and increased risk of fractures (Reinmark et al.
 2004; Barker et al., 2005). Record malnutrition risk category presenceof obesity and/or need for specialdiets and follow local poliry: for those identified at f risk. In individuals with rare genetic abnormalities in the o-tocopherol transfer protein 3. Larger, well-designed, randomized clinical trials using MI strategies are needed. This opening may be
banded by a piece of mesh to prevent it from enlarging during the years after surgery. Fluoride must still be regardedas practical for dental applications the FDA because of these concerns; the use of fluoride must still be regarded practical for dental applications that are open ro detailed
descriptions. Nternatively, an internal or external jugular vein catheter can be used with the same catheter tip placement. Ideally a person's genotypic profile should be just another important piece of information in analyzing health risk-like height, weight, and blood pressure. Protein foods temporarily buffer gastric secretions, but they also stimulate
secretion of gastrin, acid, and pepsin. Infusion of glucose -thiamin to its active form in the liver. Augustin LS et al: Glycemic index and glycemic load in endometrial cancer, Int J Cancer 105:404,2003. GenETrc UNDAMENTALs It is
assumed that the reader has a basic understandins of DNA as the genetic material for humans and of chroirosomal and molecular genetics (see Focus Ozr DNA Tianscription and RNA Tlanslation in Chapter 3). VeryLow-Calorie Diets providing 200 to 800 kcal are classified as very lowcalorie diets (VLCDs). Muscle and even skeletal mass adjust to
some extent to support the changing burden of adipose tissue. need a lipidJowering drug regimen to normalize blood lipids (Wenke, 200+). Tfelt-HansenJ, Torring O: Calcium and viamin Dr supplements in calciumand viamin D3 sufficientearly postrnenopausal healthywomen, Eur J Clin Nutr 58:1420,2004. With increasing age, higher mortality
ratesfrom CHD are seenin both of genders. However, genderis a factor for the assessment risk. Blot W] et al: Nutrition intervention trials in Linxian, China: supplementation with specific vitamin/mineral combinations, cancer incidence, and disease-specific mortaliry in the general population, J Natl CancerInst 85:1483, 1993. Seea/soNewborn
definition, 1119 neoplasm definition, 959 in carcinogenesis, 960 malignant, definition, 950 malignant, 950 mali
definition, 92 1 medical management, 948 medical nutrition therapy, 948-949 pathophysiology, 948 stone composition in, 949t struvite stones in, 954=955 uric acid stonesin, 965 urinary risk factors, 948b nephron, 923f nephrotoxicity, drugs
causing, 446 nerve(s) cranial, functions of, 1072t transmission, calcium in, 106 vagus definition, 655 nervous system disorders of, 1067-l 101. McCallum PD, Fomari A: Nutrition therapy in palliative care. Ignoring the impact of one's culture (neighborhood, beliefs, background experiences) on behavior has adverse consequences for efforts at individual
and social change (Shinn and Touhey, 2003). In children, vomiting, dysphagia, refusal to eat, or complaints of abdominal pain may be present (Flassall, 2005). Manifestations of HIV that can cause limitations in nutrient
intake and result in weight loss and compromised nuuition status. There is evidence from the general population that foods containing very long omega-3 polyunsaturated fatty acids are beneficial, and two to three servingsoffish per week are recommended. FIGURE 25-4 Early childhood [email protected] SwartzMH: Textbook ofphysical
diagnosis, history and examinarion, ed i, Philadelphia, 2006, Saunders.) because of the protective position of the lip and tongue and the presence of a salivary duct in rhe floor of the mouth. Assessment of the protective position of the lip and tongue and the presence of a salivary duct in rhe floor of the mouth. Assessment of the protective position of the lip and tongue and the presence of a salivary duct in rhe floor of the mouth.
health care goals and compatible with any prescription and over-the-counter medications or other dietary supplements. Information is availableat www. Cellulose is found in carrots, celery, broccoli, and many other vegetables. Advance the feeding tube approximately 5-10 cm evthis clinical activity. While HfV viral load is a major determinant, HW
progressiondependson complex interactions between viral and genetic host factors and differs among individuals. govlomim w-ww.ornl.gov www. Gastrostomy or jejunostomy feeding tubes are used when longer-term enteral nutrition support (for greater than 3 to 4 weeks) is indicated (seeChapter 20). A decrease in erythrocyte transketolase activity
also correlates well with improvement in the clinical picture since a normal value is a sensitive measure of adequate thiamin nutriture. heabhpromotion in deaeloping SockalingamS: Culmral competence rhetoricor reality, 2002, Northwest strategies: and interuention ObesityPreventionProject. 'washington.edV accessed
obesity/DocRevieilsuganya/basedoc.html, June 1, 2004. buffering capacity. org American Institute for Cancer Resources Survivorship www.alcr.org is doing/resources.htm Cancer Information www.cancerlinksusa,com Nutrition Cancer Information www.alcr.org is doing/resources.html.
Committee proposedsevenlifestylerecommendationsto reducerisk of CVD (Box 32-5)(Lichtensreinet al., 2006). These are each discussed in the followins sections. Parenting style at intervals. Autores: Casi 50 autores, and communicators which can be rycled at intervals. Autores: Casi 50 autores, and communicators which can be rycled at intervals.
investigadores y profesionales de prestigio, escriben sobre la valoración y la intervención nutricionales de los individuos a lo largo de su ciclo vital, la nutrición para la salud y el bienestar y el tratamiento nutricionales de los individuos a lo largo de su ciclo vital, la nutrición para la salud y el bienestar y el tratamiento nutricionales de los individuos a lo largo de su ciclo vital, la nutrición para la salud y el bienestar y el tratamiento nutricionales de los individuos a lo largo de su ciclo vital, la nutrición para la salud y el bienestar y el tratamiento nutricionales de los individuos a lo largo de su ciclo vital, la nutrición para la salud y el bienestar y el tratamiento nutricionales de los individuos a lo largo de su ciclo vital, la nutrición para la salud y el bienestar y el tratamiento nutricionales de los individuos a lo largo de su ciclo vital, la nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el tratamiento nutrición para la salud y el bienestar y el
complaint, present and past illness, current health, allergies, past or recent surgeries, family history of disease, psychosocial data, and a review of problems-by body system-from the patient's perspective (Hammond, 1998). These histories are likely provide much insight into nutrition-related problems. What suggestions would you offer him about dietary
choicesfor a healthy heart? Nonmodifiable Factors Menopausal Status Endogenousestrogenconfers protection againstCVD in premenopausalwomen, probably by preventing vascular injury. They are known to be important in insulin resistance and obesity caused by a high-fat diet (Hihi eta1.,2002; Kadowaki et a1.,2002). This mechanism appears to be important in insulin resistance and obesity caused by a high-fat diet (Hihi eta1.,2002; Kadowaki et a1.,2002). This mechanism appears to be important in insulin resistance and obesity caused by a high-fat diet (Hihi eta1.,2002; Kadowaki et a1.,2002). This mechanism appears to be important in insulin resistance and obesity caused by a high-fat diet (Hihi eta1.,2002; Kadowaki et a1.,2002). This mechanism appears to be important in insulin resistance and obesity caused by a high-fat diet (Hihi eta1.,2002; Kadowaki et a1.,2002). This mechanism appears to be important in insulin resistance and obesity caused by a high-fat diet (Hihi eta1.,2002; Kadowaki et a1.,2002). This mechanism appears to be important in insulin resistance and obesity caused by a high-fat diet (Hihi eta1.,2002). This mechanism appears to be important in insulin resistance and obesity caused by a high-fat diet (Hihi eta1.,2002). This mechanism appears to be important in insulin resistance and observe a high-fat diet (Hihi eta1.,2002). This mechanism appears to be important in insulin resistance and observe and observe a high-fat diet (Hihi eta1.,2002). This mechanism appears to be important in insulin resistance and observe a high-fat diet (Hihi eta1.,2002). This mechanism appears to be important in insulin resistance and observe a high-fat diet (Hihi eta1.,2002). This mechanism appears to be important in insulin resistance and observe and observe a high-fat diet (Hihi eta1.,2002). This mechanism appears to be important in insulin resistance and observe a high-fat diet (Hihi eta1.,2002). This mechanism appears to be important in insulin resistance and observe a high-fat diet (Hihi eta1.,2002). This mechanism appe
useful for silencing DNA that is not needed in a particular cell t1,?e or that, when activated, may result in abnormal growth that can lead to cancer. For educational discussion of dietary supplement use, clients should bring with them to their visit with the health care practitioner all the prescription and OTC medications and dietary supplements they
are using. The mostimportantof the monosaccharides is the 6-carbon sugara-D-glucose. Glucoseis the most widely distributed sugarin nature, usually as a component to the monosaccharides or polysaccharides. The nutrition counselor sets up an environment that is a transient support system to prepare the client to handle social and personal demands more
effectively while providing favorable conditions for change. Their unique charactet including their taste, texture, and absorbability, is determined by the relative numbers of glucoseunits in straight (amylase) and branched configurations (amylopection) and the degree of accessibility digestry described by the relative numbers of glucoseunits in straight (amylase) and branched configurations (amylopection) and the degree of accessibility digestry described by the relative numbers of glucoseunits in straight (amylase) and branched configurations (amylopection) and the degree of accessibility digestry described by the relative numbers of glucoseunits in straight (amylase) and branched configurations (amylopection) and the degree of accessibility digestry described by the relative numbers of glucoseunits in straight (amylase) and branched configurations (amylopection) and the degree of accessibility degree o
Haplotype association analysis of AGT variants traits: the HlperGEN Srtdy, Hum with hypertension-related Hered60:164,2005. I ared and Matthew are identical rwins who grew up tot gether but have lived apart since college. Jared to the Northeast and majored in accounting. B. ssauln Jle8ro; 'uorlrun J or lrrlg B aq J pue
 '&qeuosrad'uonruSocsdorlsep 'uorsryuoc qy dlpuue,rg 'sSulrs pooru pue 'ssaussepser 'lueur€pnfrood'uorleruroJur Iensn etelndruerudlprueru or lrqrqe parredrur'uoperoualop a3en5ur1'ssoy. {-rouraur epnlrur CtVJo surordur,(g'99 e8epuorbq srear(g Lreaeselq -nop :CIVroJ rotJq eseasrp eW aldoedJo roqrunu aW q1p\ '(SOOZ 'Hn suralordpecrld D
1sr.rlueuodur tsoru agr sr e8y -srru Jo pasodurocsey8uel&eprqgorneu pue pro1,(ur-fl1o sdurnloFruJouqedq urerq erfJur pozrJetJEJEqJ eseasrpaAD 'e,ussel8orde sr (qy) asuaslps.raulaqzlv -ereueSepornau [6olorsriqdoq]ed '8uua88erssl 'lercueug'pggue; CIVJo roedrurIerrurTrpur 'leuosrad arp 'ecuepaerdqr uelr51 'ueru uerp ra8uo1eaq ot puel
ueruo^resneJeqsr (uaurur uerfl -laqSrqseun earqt) uaruo^rur uees otsJ eJuelelerd req8rg aqJ '0t e8e rarye dypnueuodxaSursrareur'p1ro,Lr. agr tnoqSnoJrppue sexos tlJoq JoJ JBIIUIS sl ([VJo sesBJ .ryreuJo elBr aJuaPIruI eql 'saqcrordde rpuap s? It has five double bonds, the first of which is three carbons from the terminal methyl group. Alcohol The
same precautions that apply to alcohol consumption for the general population apply to persons with diabetes. Jo lsol sI {aaqJ IETJBJ erp ul uonusues ,{lprcadsa 'sesseJeJIEJJnq arp ur pele ;r ->1codeuroceq uBJ pood lrprec IBro e{r qSnortp lr Sur,rour pu? Gastroplasty andGastric Bypass Gastroplasty reduces the size of the stomach by applying rows
of stainless-steelstaplesto partition the stomach and create a small gastric pouch, leaving only a small opening (0.8-1.0 cm) into the distal stomach. In persons with type I diabetes, the glycemic response to exercise; timing, intensity and duration of
the exercise; previous food intake; and previous conditioning. SeeDocosahexaenoic acid DHEA (dehydroepiandrosterone) as muscle-building supplemental, effcacy, reviews, 478t DHKS (Diet and Health Knowledge Suwey), 314 DHR (delayed hypersensitivity reactivity), in immune function assessment, 406 DHS (Department of
Homeland Security) definition, 309 in disasterplanning, 332-333 diabetes, gestational, definition, 764 diabetes mellitus (DM) blood pressure, recommendations, 775t cardiovasculardiseaseand, 850 complications aatte, 797 - 799 long-term, 799-802
macrovascular diseasesas, 799 -800 microvasculardiseasesas, 800-802 diagnosis7, 71-772, 771 t end-stage renal diseasein patient with, 945-946 etlrnicity and, 7 67b food-planning approaches for, 7 96t gestational, 181. Resections of as little as 15 cm of the terminal ileum can result in bile salt losses that exceed the liver's capacity for
reslmthesis, and vitamin B12absorption is affected. Palmer C, Wolfe SH: Position of the AmericanDietetic Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth, J Am Diet Association: the impact of fuoride onhealth of the impact of f
o Recommendnecessarydietary changes. Currendy he is taking Proscar and saw palmetto, as prescribedby his physician. Dairy products sweetened with fi:uctose, sucrose, or other sugars can also be cariogenic because of the added sugars; howeveS dairy products are rich in calcium, and their alkaline nature may have a positive influence, reducing
the cariogenic potential of the food. goa/hgmis.) Healthor Disease? Weightreduction Adopta DASHeatingplan Dietarysodiumrestriction of alcoholconsumption Nutritioneducation Nutritio
MedicalNutrition Therapy sweat test, is performed by pilocarpine iontophoresis. For most persons a modest decrease(of about I to 2 units) in the rapid- or short-acting insulin during the period of exercise is a good starting point. 'ssaurdaels pe>IJEuI pue (senrleuuouq?uopeurpJoocpue Suqp,tr 'acuepq gluo. Co-en4me Qro, a dietary supplement, is
claimed to have a profound effect on the immune system, and melatonin, a hormone that has strong antioxidant properties, are currendy being studied. One of the variants that has been identified to be and carcinogenesis (Go et al., 2003; Davisand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; JunienandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; Junienand Hord, 2005; diet-relatedis -75G>A, in which the typicalguaninehas DavisandMilner, 2004; diet-relatedi
Gallou, 2004; Kim and been replaced with an adenineat position 75 within the Milner, 2003; Ulrich, 2005; Tiujillo et a1., 2006; Wargovich regulatory region of the APOA-I gene (the "-" sign deand Cunningham, 2003). One of the key mechanisms by notes a position before the first nucleotide-Dosition , 10, which the body protects against cancer is
detoxification, the of the gene'scodingregion). In womenwith the more comprocessof neutralizing potentially harmful molecules (see mon G allele, increasing dietary polyunsaturated fat (pUFA) FocusOn: Detoxifications ystems in Chapter 9). MeeraraniP et al: Metabolic syndromeand diabedc at Jrerothrombosis: implications in vascular complications, Cun
Mol Med 6a95a0:501, 2ffi6. It also contributes to the composition of teeth and bones. o The cultural, ethnic and religiousbackgroundsof individualsand groupsare highly influential in food choices and meal planning, and must be considered when translatingeatingguidelinesinto the lifestyle choices. B H a o o @ S F F i- o I a dt N 0 5 dE F.l o o lD $ s 4 3
 :p -t R .s z 6 o>' gi O EE .F 6EE E S"s sN lr L 326 PART2 I Nutritionin the Life Cycte t I E o C' la o, ta ta o s o E o st t o 0 E E o E E o (J d. Their knowledge of correcr food-handling practices to avoid foodborne illness would be critical during the time of an attack (Bruemmer, 2003). VenterJC et al: The sequenceof the human genome, Science
2911304,2001. 3 I TheNutrientsandTheirMetabolism 45 CHAPTER and are specificto the particularbond. The U.S. Department of Agriculture Research Education and Economics supported a scientific review of popular diets to assesstheir efficacy for weight loss and weight maintenance, as well as their effect on metabolic parameters, psychological
 well-being, and reduction of chronic disease (Freedman et al., 2001). Causesof mild fluorosis from excessivefluoride intake secondary to fluoride in foods and beveragesprocessed in fluoridated areasand transported to other
areas(palmer and Wolfe, 2005). SeeRheumatoid arthritrs race, osteoporosisand, 628 radiation-induced enteritis, definition, 960 nutritional implications of , 97 5 -976, 97 6t radioallergosorbent test (RAST) definition, 40 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72, 72b definition, 41 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity equivalents), 72 in food allergy diagnosis, 7 48, 7 50r RALs (retinol activity e
raloxifene, for osteoporosis, 632 Raman spectroscopy, in antioxidant capacity measurement, 428b RAST (radioallergosorbent test) in food allergy diagnosis, 7 48, 7 50t Rayrraudt syndrome, definition, 412 RDA (recommendecomm
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bone remodeling, 618 recessive, definition, 366 recessive enes, 372 recombinant DNA, 174 definition, 366 recommended dietary allowance (RDA), 319-320 definition, 366 recessive enes, 372 recombinant DNA, 174 definition, 366 recommended dietary allowance (RDA), 319-320 definition, 366 recessive enes, 372 recombinant DNA, 174 definition, 366 recommended dietary allowance (RDA), 319-320 definition, 366 recessive enes, 372 recombinant DNA, 174 definition, 366 recessive enes, 372 recombinant DNA, 374 definition, 374 defi
CHAPTER a meal or with a snack is an example of a caries reduction strategy when consuming these foods. Diet and nutrition are important in all phases of tooth development, eruption, and maintenance. Because fthe presence of different strains of this organism and the relative resistance of the organism throughout the world, the medication strategy when consuming these foods.
protocol usually involves the use of two or three antibiotics and acid-suppressing medications. With the obesity epidemic facing many individuals, encouragement treatment strategy depends on the goals and health risks of the patient. Approximately 180 L of fluid
 (ultrafiltrate) is produced in filtering this blood, and, through active processes fresorbing certain components and secreting others, the composition of this fluid is changed into the 1.5 L ofurine excreted in an average day. JIIuou -oJa uePPnsuag.'n '9661 PuE 166I uoe.t\leq 'eldurexa rog 'sestasrpcr8olo,rneutue,ta.rdot parrnbe-rsluelJtnu aqr;o 8ul
puEtsJO\ pun\ pue\ a8pel, ttorq\ arrdsap\ apnrtu8eu\ epl{plJo.{\ be sees pull luoJJ\ sllnseJ\ lerp\ lua}} sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ \$0lPst0y-a4clural\ rca; ep\ c\#oloJneu\ ruelsrsJadou\ qrrm\ urSrro\ relncsel\ Jo\ es\ esrpB\ (S1;n\ )} auorpufs\ \$0lPst0y-a4clural\ rca; ep\ c\#oloJneu\ ruelsrsJadou\ qrrm\ urSrro\ relncsel\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ \$0lPst0y-a4clural\ rca; ep\ c\#oloJneu\ ruelsrsJadou\ qrrm\ urSrro\ relncsel\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ \$0lPst0y-a4clural\ rca; ep\ c\#oloJneu\ ruelsrsJadou\ qrrm\ urSrro\ relncsel\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ Jo\ es\ esrpB\ (S1;n\ )\ auorpufs\ sulEJq\ Pu8\ runllaqe\ -rer\ aql\ pu8\ runllaqe\
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alqel) -qrrlt eq .{eu urats,{ssnolreu aql reqro seerol{.tr uB loIJ ol uoDe8a.rSSerayareydluenbasqns qlm 'fraue ue Jo saseasrp (surluetrl ur anbeld -ro a15ursr 30 l(cuerogepe ot hepuoJes JnJ Iorasalor{J e;o Suunrdru eW alorls clloqutortll IBJaAes -co ({qledornau ;uraqduadse qrns suoocurysdpcrSolotneu uoDeruJoJ eruoJeq s?q r?ql snqruoJrll E e^ItJOJ
alrs slr ruo{ auo5 '(1-19 elqu]) tuaruaEeueur pue Per{c?]ep Jo lprlpeur IEJrurl] 'lSo1oee uorl -;a or uonrnJtsqo luala Jlloquraoquortg ,(q poolq B eJe suorttJaprsuo] Jo lassa,r 1e-r8arur leuorllJtnu -rrtnu E eleq soseesrprr8o1o-rnau eu?rgrueru ProurlJBJePu? Figure 20-1 presents an algorithm for selecting enteral and parenteral nutntron foutes.
Smokingis the numberone causeof preventabledeathin the United States;35% of deathsfrom tobaccousearefrom CVD (Thom et al., 2006). Smokingis synergistic vith other risk AmericanHeart fusociation 2006 Diet and Lifestyle Goalsfor Risk Reduction . Whether the heart is able to continue beating depends on the extent of the musculature involved
the presence of collateral circulation, and the oxygen requirement. Acarbose (Precose) and miglitol (Glyset) are competitive inhibitors of intestinal brush-border ct-slucosidases required for the breakdown of starches, dextriis, maltose, and sucrose to absorbable monosaccharides. They do not cause hypoglycemia or weight gain when used alone, but they
can frequently causeflatulence, diarrhea, cramping, or abdominal pain. Waxystarchis obtainedfrom corn and rice strainsbred to containa greaterpercentageofbranchedamylopectinchains. Do you remember that? Most often, functional assessment of nutrient status may be done by measurement of a biochemical marker (i.e., a normal or abnorma
metabolite) of function. *We have about minutesto meettoday. See also Vtamin C deficienty, tooth development, 638r definition, 39 pregnancy requirements, 174 ASDs. See Autism spectrum disorders Asians, communication style, +92t aspartame excipient, ,[49b sweemessvalue, 43t aspartate aminotransferase (AST) serum, reference range/signifi can
ce, 41 5t Asperger syndrome, 1 185 definition, 1170 asprraflon complicating enteral nuurition, 515 pulmonary 903-904 definition, 514 assays functional, +13-414 static, 41 3 types, 413-414 Index 1309 assessment dietary/clinical data, 381-410 nutrition assessment, 390-405. Carrying excessadipose tissue
gready impacts the heart through the many risk factors that are often present: hypertension, glucose intolerance, inflammatory markers QL-6, TNF-ct, CRP), obstructive sleep apnea, prothrombotic state, endothelial dysfunction, and dyslipidemia (small LDL, increased apo B, low HDL, high triglyceride levels) (Poirier et al., 2006). SeeBody mass index
 BMP (basicmetabolic panel), tests,414b BMR. basedon the parental report oftheir own grorth patterns and assessmentof the present channel of height gain and the Tanner stage of adolescentdevelopment (seeChapter 8). - Cuadros sobre la nutrición y la Affordabel Care Act, los bancos de leche materna y la ley sobre etiquetado en máquinas
expendedoras. An example of this is the use of ginger for reducing nausea associated with cancer therapy. How can food labeling information be used to help Marty meet his weight loss and nurient goalsand incorporate his religious dietary concerns? pdf American Cancer Society Nutrition Practice Oncology Group www.cancer.ofg www.oncolo
 glmutrition. made to advance his feeding rate. Low levels of these electrolytes are the hallmark of refeeding slmdrome. Although BH4 holds promise as an alternative therapy for some milder mutations, observations on long-term outcome are for less than 5 years so far (Perez-Duenas et al., 2004; Lambruschini et al., 200s). Weight loss from
 inadequate enerry inake is significandy correlated with a poor prognosis in personswith pulmonary diseases. Nutrition professionals will play a prominent role in recommending preventive therapy using nutrition and lifestyle approaches. The nutrition support dietitian O{SD) is an ideal clini2. s1.rup-based Encourage children with pediatric
gastroesophagealreflux disease(GERD) to adhere to dietary guidelines. See 120,+22,811, iron deficiencyanemia definition,810 in pregnancy,175-176 macrocytic,421,812t definition,810 in pregnancy,175-1
 States as dietary supplements. Fluoride Fluoride is a primary anticaries agent. Patients with compromised gastrointestinal function because of disease, surgery antineoplastic therapy, or other physiologic impediments are candidates for continuous drip infusion. Work to get the prescription written as whole cans of formula rather than partial cans.
Reasonsfor long-term nonprogressionmay include infection by a lessvirulent strain of the virus, protective geneticmutations, or particular protective genetic genetic
210 mg of calcium. Units Many types of units are used in reporting nutrition. After a nutrition diagnosis have been established, the next step is designing the intervention. IJse questions that begin with "what," "how' "*\y,"
and "could." Tivo types of encouragers are important in counseling: paraphrasing should make sure that statelicensurelaws do not prohibit this 5. The tip of the tube migrates into the small bowel via peristaltic activity. As mentioned, people typically do not dimlge their use of dietary supplements to their health care practitioners;
thus it is imperative that the practitioner establish rapport with the client. N utriti on Diag noise: Hyperetabolismas evidenced by recent trauma and surgery 1. The high levels of folate in vegan di.tr. nry mask the n.*ologi. Edema, the mosr clinically apparenrmanifestation of this group of diseases, indicatesa srareof toul body
sodiumoverload. However, because of the low oncoticpressure in the circulating blood wolume that resuls from hypoalbuminemia, the volume of circulating blood may be reduced. An emps to limit sodium inuke more than modesdy or to eliminate large amounts of extra sodium with diuretics can causemarked hypotension, exacerbation of the coagulopathy
and deterioration of renal firnction. DietaryReference Intakesfor Ghromium for Ghildren andAdults Age (years) l-J +-8 9-13 l4-18 l9+ Pregnancy(mcE/dayl Males and Females, 21 for females, 21 for females, 25 for males, 25 for males, 25 for males, 26 for males, 27 for females 35 for males, 28 for males, 28 for males, 29 for males, 20 for m
 FoodSources of Chromium Food Micrograms per Serving Brewer'syeast, I Ttrsp or 15 g Broccoli, % cup Grapejuice, I cup Englishmuf6n, whole wheat, I Potatoes, mashed, I cup Garlic, dried, I tsp Basil, dried, dried
 Green beans,% cup 60 l1 8 4 3 3 2 2 2 2 2 t-l) I I I Interactions Between Chromium andMedications Medications Medications Medications (e.g., omeprazole, lansoprazole, rabeprazole, rabeprazole, These medications alter stomach acidity and may
impair chromium absorption or enhance excretion. Egger G et al: Epigeneticsin human diseaseand prospectsfor epigenetictherapy, Nature 429:457,2004. The most important of the Jewish holy days is the Sabbath, or day of rest, which is observed from sundown on Friday until sundown on Saturdays. Currendy the medical treatment of the Jewish holy days is the Sabbath, or day of rest, which is observed from sundown on Friday until sundown on Saturdays.
cancerinvolves radiation therapy chemotherapy, and surgery which are accompanied by various nutritional side effecs (seeChapters 16 and 37 for furttrer discussion). Patients with lung cancer experience the added stress of respiratory fatigue and diminished lung residual capacity. Weight loss, along with associated declines in other anthropometricand
laboratory indicators of cancer-relatedmalnutrition, portends a worseningprognosis. sallel leuorlrJlnu uro { esrJeIBI {] sastaslpcr8olorneu ro-1 -JE arp ur ursftnau? The kidney receives 200/oof cardiac output, which allows the filtering of approximately 1600L/day of blood. Stressulcers may occur as a complication of severeburns, trauma, surgery shock
renal failure, or radiation therapy. A primary concern with stressulceration is the potential for significant hemorrhage. The kidney also produces the hormone erythropoietin The treatment of acute glomerulonephritisattempts to (EPO), a critical determinant of erythropoietin The treatment of acute glomerulonephritisattempts to (EPO), a critical determinant of erythropoietin The treatment of acute glomerulonephritisattempts to (EPO), a critical determinant of erythropoietin The treatment of acute glomerulonephritisattempts to (EPO), a critical determinant of erythropoietin The treatment of acute glomerulonephritisattempts to (EPO), a critical determinant of erythropoietin The treatment of acute glomerulonephritisattempts to (EPO), a critical determinant of erythropoietin The treatment of acute glomerulonephritisattempts to (EPO), a critical determinant of erythropoietin The treatment of acute glomerulonephritisattempts to (EPO), a critical determinant of erythropoietin The treatment of acute glomerulonephritisattempts to (EPO), a critical determinant of erythropoietin The treatment of erythropoietin The erythropoietin The treatment of erythropoietin The erythropoieti
whom an bone marrow Deficiency of EPO is a factor in the severe diseaseto resolves pontaneously. common cold, Cochrane mineral, nonvitamin, and nonmineral vitamin, of AE: Use Millen supplements in the United States: the 1987,1992, and 2000 National Health Interview Survey results, J Am Diet Assoc 104:942,2004. Most people on PD do not have to
limit potassium in their diet. FIGURE36-1 The nephron. (Modfiedfrom Thibodeau GA, Panm KT:The humanbodyin healthanddisease. She needs root canal surgery in three teeth. Physical triggers for hunger are much stronger than those for satiety. Although the homeostatic mechanisms are interrelated
to a large extent, occasional demands are placed on the kidney to regulate one substance while sacrificing tight control of others. Specialformula considerations 8. The high prevalence of overweight indicates that an energy imbalance exiss among Americans because of physical inactivity and underreporting of energy intake or food consumption in
national surveys. Scientific evidence of benefit and/or effectiveness. Such patients usually have less than 2 to 3 ft (60 to 100 cm) of functioning small bowel available for absorption of nutrients. This paraphrasing will allow the patient to rethink his or her reasoning about readiness to change, gog accessed May 23,2006, and Important Common g
Interactions Magnesium/Dru Drug Potential Interaction Loop and thiazide diuretics (e.g., cisplatin) Antibiotics (e.g., cisplatin) Antibiotics (e.g., gentamicin and amphotericin) Tetracycline antibiotics These drugs may increase the loss of magnesium in urine; thus taking these medications for long periods
of time may contribute to magnesium depletion. Concentrated tannins or proanthocyanidins in cranberry juice, seem to inhibit the adherence of Escherichiacoli bacteria to the epithelial cells of the urin ry:ract (Howell et al., 1998). New enteralformulascan be compounded from modulesto provide specific nutrient
requirements. Passover, a spring commemorative festival lasting 8 days, includes special dietary requirements. 996f esophageal disorderscomplicating, 1015 etiology, 992 in children, 1007-1008 in women, 1007 life cycle, 992f liver diseasein, 1006 malabsorption complicating, 1014 malnutrition and, 1008-1010 medical management, 998-1001, 999r
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2002). The feeding rate goal, in milliliters per hour, is set by dividing the total daily volume by the number of hours per day of administration (usually 18 to 24 hours). Gonschlich MII: Adult enteral nutririon: formulas and supplements. Luma GB, Spiona RT: Hlpertension in children and adolescenrs, Am Fam PhycianT3(9)zl558, 2ffi6. Fields LE et al
The burden of adult hipenension in the United States, 1999 to 2000:a rising dde, Hypmmsion 44:f98, 2004. Annie took the supplements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when a second set of DEXA measurements regularly for a year when year w
intake of specific nutrients' exposure to sunlight, exercise management of the underlying disorder or when the cause of the underweight is
merely inappropriate or inadequate food intake. It may also be experienced as a result of treatment-related fatigue. Jeejeebhoy KN: Enteral and parenteral nutrition: evidence-based approach, ProcNutr Soc60:399,2001. It includes energy and all nurrients in proper amounts and in proportion to each other. Spices Algorithm content developed by John J.B.
Anderson, PhD, and Sanford C. Client: I just feel hopeless sometimes when I try to follow the diet. StrolloJlssaru -edruoccedluoruuoc'&qer.rour; o rolcrpa-ldluepuedepur ue 'er5egdsfq 'petJeJB ureJq oqt Jo BerBe{r pue e>loJrsaqt Jo tuetxe eqr dq peurrurelep are senlnrgJrpSurpaeg .a8ualeqc E sr erntrJlnu poo8 'aqetur etenbepe; o acuaserdeqt ur ue^a
taaa,troq lpaurelureu aq pFo,n snlets uorlrJlnu socuelsrunJ 'eurorlno rood e stcrpard uorlrrtnulew -JrJ leepr repull ']uen?d eqr Jo qrlBer { Ilere^o agr Sururelureru pre./Kot petrerrp eq pFor {s stro3lg 'tgeueq elqeuonsanbJo are tles pu? Phar maceutical Management of Anor exia- Gachexia Syndr om e A number of pharmacologic agents are under
investigation in the management of the anorexia-cachexia srmdrome PART5, Medical Nutrition Therapy 982 and cancer-related weight loss, including appetite stimulants, metabolic agents and cltokine blockers, prokinetic agents, and anabolic agents flow appetite stimulants, metabolic agents flow appetite stimulants, metabolic agents and cltokine blockers, prokinetic agents, and anabolic agents flow appetite stimulants, metabolic agents flow appetite stimulants flow appe
with large pickle, botded club soda, and packaged cookies. Davis CD, MilnerJ: Frontiers in nutrigenemics, proteomics, metabolomics and cancer prevention, Matat Res551:51,2004. Would nutrigenemic testing be of help to Maria? A mutation in the gene encoding galactose-lphosphateuridyl transferaseprevents the sugar galactosefrom being converted
to glucose. Care should be taken to assess the effects of medication on the oral cavity and how these effects can be minimized by alterations in diet or drug therapy. National Ettinger DS et al: PracticeGuidelines: Antiemesis. Prevention of weight gain through energy belance Restricted-Energy Diets A balanced restricted-energy diet is the most widely
prescribed method of weight reduction. 24; ilutritionand BoneHealth 627 CHAPTER Osteoporosismay have its origin in early life during the period of skeletalgrowth and PBM accumulation. Statistics indicate tlat women are about four times more likely than men to developosteoporosis, althoughwith aging both genders gradually losebone massand
becomemore vulnerable, especially to hip fractures, as they age. Women have almost twice the hip fracture rate as men, but the men's rate will catch up as the averagelife spanof malescontinues to increase. Practically everyone over 80 years of agecan be said to be osteoporotic and at risk for a hip fracture. The World Health Organization (WI{O})
definesosteoporosisin terms of declinein BMD (Thble24-5). Foods made from whole grains are good sources of6ber. Core curriculum for the dialysis technician: a comprehensive review of hemodialysis, AMGEN, Int.) FIGURE 36-5 Hemodialysis. Siris ES et al: Identification and fracnrreoutcomes of undiagnosed low bone mineral density in
postrnenopausal women:resultsfrom the Narional OsteoporosisRisk Assessment, JAMA 286:2815, 2001. The following guidelineswere issued:for children grow in height, is an appropriate goal in the absence of any secondary complications of
obesity; however, if secondarycomplications are present, children in this age-group may benefit from weight loss if their BMI is at the 95th percentile or higher. About 150 g of glycogen is stored in muscle; this amount can be increased fivefold with physical training (seeChapter 23) but is not available to maintain blood glucose directly. With only
minimum training in nutrition (e.g., nutrition courses spreadthroughout the curriculum or having very few hours in nutrition and therefore little awarenessof malnutrition. CHAPTER 25 Medical Nutrition Therapyfor UpperGastrointestinal Tract
Disorders 663 PepticUlcer Erosion throughmuscularis mucosa intosubmucosa or propria muscularis amounts of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, chronic ingestion of alcohol does not raise blood pressure; whereas excessive, and alcohol does not raise blood pressure; whereas excessive, and alcohol does not raise blood pressure and alcohol does not raise and alcohol does not raise all alcohol does not raise all
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liver disease, 720 medical nutrition therapy, 67 9 -680 medical treatment, 679 pathophysiology, 679 steatosis, hepatic, 7 ll, 7 l4f definition, 707 stem cell transplantation, hematopoietic. Therefore infusion of currendy available parenteral lipid emulsions over 24-hour periods at a maximum of 1 g of lipid per kilogram per 24 hours is recommended to
avoid deleterious effects. Long-term, prospective studies are needed to confirm these observations (ADA, 2007) (seeChapter 32). Formula () Fiberenriched () Monomeric kcal/cc 1.0 1.0 () ScheduleB: Pump 1 Beginfull strength30 cclhr x 8 hr. The most commonmethodis hemodialysis, in which blood passes by the
semipermeable membraneof the artificial kidney andwasteproducts for adult women and fluids by ultrafiltration. If individuals choose to drink or less for adult men (l drink: 12 oz beer, 5 oz of wine, or I1/z oz of distilled spirits). Data from
severalsourcesindicate that Americans eat too many calories, even though they eat less fat than was consumed 30 years ago fl4/illett,2002). The mucus contains acid-neutralizing bicarbonates are provided by the pancreatic juice secreted into the intestinal lumen. CHAPTER 37 I MedicalNutritionTherapy for Cancer 979
HematopoieticStemCell Transplantarion(HSCT). Although causal relationships have not been determined, the association of calcium and dairy foods such as that recommended by the MyPyramid Food Guidance system. Therefore changing lifestyle as described under
"Therapeutic Lifestyle Changes(TLC)" later in the chapteris critical to improving risk in individualswith any combination of the "metabolic risk factors" (Stone, 2006). tToml phenylalanineis converted to tposine. WeintraubJA et al: Fluoride varnish efficaq in preventingearly
childhoodcaries, J Dent Res85:172,2006. Acid pH foods . Some of these formulas also lack sufficient vitamins and minerals and are not nutritionally complete. J Am Diet Assoc97(suppl): A-+4,1997[abstract]. Michels KB et al: Coffee, tea, and caffeine consumption and incidence of colon and rectal cancer, J Natl CancerInst 16:282, 2005. Food form
determines the duration of exposure or retention time of a food in the mouth, which, in turn, affects how long the decreasein pH or the acidproducing activity will last. Pancreatic duodenectomy are the most
commonly used pancreatic cancer surgeries. Therapy Medical Nutrition First and foremost, the nutritional deficiency should be corrected if possible. The liver metabolizes these chylomicron remnants, but some deliver cholesterol to the arterial wall and thus are considered atherogenic. Chromium also appears to be directly involved in carbohydrate,
fat, and protein metabolism; but more research is needed to determine the full range of its roles in the body. groq tnoqe Jo seteJ ssol aqt uaq,l.l. '97 e8e a8e arues eql ueruolr lnun Jo 'sso1 ueqt ater re.trol r{Jnru E ol anun auoq aler{ lE lnq -uoc uatrV'epBJeprxeu aqt re,ro reed rcd o7o7 ot % I Jo atsJ t? Ready.gov (www.ready.gov) is an education tool
informing the public on how to prepare for a national emergenry, including possible terrorist attacks. nih. "The fact that you're here indicates that at least a part of you thinfts it's time to do something. The dietary contribution to urinary oxalate varies from 240/o at oxalate intakes of 10 mg/day to 180 to 250 mg/day (Holmes et al., 2001). Bob
has contacted you for assistancein planning memrs he can follow. Supplementation feeding tube is an alternative for those unable to meet nutrition, and heahh, Final report, Washington, DC, 1970, IJ.S. Government Printing Office. The virus is not transmitted by
casualcontact such as touching, hugging, or kissing or through using the same plates, silverware, or drinking glasses. However, one approach to the dietary treaument of elderly patients who were recovering from hip fractures that has been shown to be effective is the provision of protein supplements coupled with adequate amounts of micronutrients
LevineJ { Kotz CM: NEAl-non-exercise activity thermogenesis-egocentric& geocentricenvironmentalfactors vs. More commonly, foods contain a mixture of protein, fat, and carbohydrate. govlnews/press/pr2 004/obesphpr.htrn www adaevidencelibrary. What health and nutrition programs are availablein your community to promote optimal health and
education of infants and children? Protein is calculated as 1.5 to 2 glkg of dry body weight. It is not broken down by salivary amylase and is not subject to bacterial degradation. See also Celiac disease definition, 673 enterostatin, in body weight regulation, 536t enterostomies, surgical placement, for enteral nuuition, 510 enterotoxi genic Escherichia coli
(EilEC), 32 6t environmental agents, breast-feeding and, 192t enz)rme-linked immunosorbent assay(ELISA), in food allergy diagnosis, 750t enzyrne(s) brush-border, intestinal, deficiencies, 687 -689 CYP, genetically altered activity drug metabolism and, 435 in digestion, 4-5, 6t proteolytic definition, 1 in digestion, 10-11 restriction, 3T4 definition, 166
serum, reference range and significance of, 415t enzyrne therapy, for rystic fibrosis, 910,912 eosinophilic gastroententls definition, 739 elemental diet for, 751 EPA. Although these diets feature high ketone production, they suppressappetite to only a minor degree. Excessive use or
concentrated forms of ethanol can damage gastric mucosa, worsen symptoms of peptic ulcers, and interfere \Mith ulcer healing. Approximately 3 years ago at age 67, she had dual-energy x-r^y absorptiometry (DEXA) mea$uements that showed that she had low bone mineral density @MD) values of her proximal femur and lumbar vertebrae @oth
values would be classified as osteoporotic according to World Health Organization definitions). Cochrane of discretionaryincome:influence K.rp RJ et al: The appearance on thre prevalenceofunder and over nutrition, IntJ Equity Heahh28:4,2005. C H A P T E R3 7 I M e d i c a lN u t r i t i o n T h e r a p yf o r C a n c e r 9 8 f Symptoms with a nutrition
impact include nauseaand vomiting, changesin taste and smell, bowel changes, dysphagia, anorexia, pain, and fatigue (Schattner and Shike, 2006). The etiology of denal caries involves many factors. CopperContentof Commonly UsedFoods*-cont'd FoodGroups Starch Vegetables Fruits Desserts Sugar and sweets Miscellaneous Beverages (High (>0.2
mgllPortion Gommonly Usedf) (Avold) Moderate (0.1-0.2 mBlPortion) (No More Than 6 Seruings/Day) Dried beans, including soybeans, lima beans, baked beans, garbanzobeans, pinto beans, dried peas; lentils; millet; barley; wheat germ; bran breadsand cereals; cerealswith >0.2 mg of copper per serving (check label); soy flour; soy grits; sweetpotatoes
(fresh) Mushrooms, vegetable juice cocktail Whole-wheat crackers (6), potatoes in any form (t/zc or I small), pumpkin (3/+c), melba toast (4), whole-wheat crackers (6), parsnips (2/tc), winter squash (Vzc), instant oameal (Vzc), instant Ralston (% c), cereals with 0.1-0.2 mg of copperper serving (check labels), dehydrated and
cannedsoups(1 c) Bean sprouts (1 c), beets (72c), spinach(Vzccooked,I craw), tomato juice and other tomato products (Vzc), broccoli (Vzc), asparagus(% c) Mango (% c), pears (1 medium), pineapple (1/zc), paprya V+avenge) Nectarines: dried fruits. It does require a bag and pole but can be accomplished fairly quickly and requires less manual
dexterity than bolus feeding. Normalization means telling the client that he or she is perfectly within reason and that it is very normal to have such reactions and protect them against traumatic injury and shock. Excessive amounts of alcohol (three or more drinks per day) or
a consistent basis, conuibute to hyperglycemia. Salivary stimulants and 980 PART5 | MedicalNutritionTherapy FIGURE 37-2 Severeoral mucositis after marrow transplantation. Although a nasogastric tube can be a short-term option, a percutaneous endoscopic gastrostomy (PEG) or gastrostomy-jejunostomy (PEGfl tube, placed with the patient under
local anesthesia, is preferred for long-term management. FritscheK: Fatty acidsasmodulatorsof the immune response, Annu ReuNutr 2006,26:45,2006. BonnefoyM et al: Simultaneousvalidationof ten physicalactivity in older men: a doubly labeledwater study' questionnaires Society49:28,2001. Fluoride added to the hydroxyapatite provides unique
caries-resistant properties to teeth in both prenatal and postnatal developmental periods. Waste products and electrolltes move by diffrrsion, ultrafiltration, and osmosis from the blood into the dialysate and are removed (Figure 36-4). Everything on Desktop Nexus is uploaded and shared by other users, so you can expect an enormous variety of
trending images, from the artistic and chic to the strange and fantastical. Pixabay License/Stergo/Pixabay MORE FROM QUESTIONSANSWERED. Therapy Medical Nutrition Dietary indulgences-excessive volumes of HIV is often missed. Therapy Medical Nutrition Dietary indulgences excessive volumes of HIV is often missed. Therapy Medical Nutrition Dietary indulgences excessive volumes of HIV is often missed. Therapy Medical Nutrition Dietary indulgences excessive volumes of HIV is often missed.
food or high intake of fat, sugar, caffeine, spices, or alcohol-are commonly implicated in dyspepsia. However, litde research has been done in controlled settings with diet or specific foods in persons with dyspepsia. However, litde research has been done in controlled settings with diet or specific foods in persons with dyspepsia. However, litde research has been done in controlled settings with diet or specific foods in persons with dyspepsia. However, litde research has been done in controlled settings with diet or specific foods in persons with dyspepsia. However, litde research has been done in controlled settings with diet or specific foods in persons with dyspepsia. However, litde research has been done in controlled settings with diet or specific foods in persons with dyspepsia. However, litde research has been done in controlled settings with diet or specific foods in persons with dyspepsia. However, litde research has been done in controlled settings with diet or specific foods in persons with dyspepsia. However, litde research has been done in controlled settings with diet or specific foods in persons with diet or specific foods and diet or specific foods with diet or specific foods in persons with diet or specific foods with di
Many countries have issued guidelines appropriate for the circumstances and needs of their populations. Dies that are repetitious without change from meal to meal may be another consideration. He had a blood test and his poussium was low; his diet history reveals almost no potassium inake. research) Subject has voided before measurement No
exercise for >8 h For longitudinal follow-up, perform measurement at the same time of day; note menstrual cycle Bladdervoided Physicalexercise Timing Skin condition Electrodes Limb position Abduction of limbs Body
position Supine, except for "scale" type BIA instrumens Environment Electrical interference Body shape Note body abnormalities Amputation Atrophy/hemiplegia Abnormal limb or tmnk (e.g., scoliosis dysnophy (e.g., Hry Cushing q'ndrome) Obesity Ethnic group Ambient temperature No skin lesions at sight of electrodes; change site of electrodes
 Clean with alcohol Always measure same body side Minimum of 5 cm between electrodes; if needed, move proximal electrode Arms separated from trunk by about 45 degrees; legs separated by about 45 degrees Ambulatory subjects are supine before measurement; note
ifsubject is confined to bed (patients) No contact with metal frame of bed; neutral environment (no strong electrical or magnetic fields) Note measurement when interpreting results (e.g., abnormally low R suggests edema) Measure nonaffected limb; not validity of measurement when interpreting results (e.g., abnormally low R suggests edema) Measure nonaffected limb; not validity of measurement when interpreting results (e.g., abnormally low R suggests edema) Measure nonaffected limb; not validity of measurement when interpreting results (e.g., abnormally low R suggests edema) Measure nonaffected limb; not valid to the measurement when interpreting results (e.g., abnormally low R suggests edema) Measure nonaffected limb; not valid to the measurement when interpreting results (e.g., abnormally low R suggests edema) Measure nonaffected limb; not valid to the measurement when interpreting results (e.g., abnormally low R suggests edema) Measure nonaffected limb; not valid to the measurement when interpreting results (e.g., abnormally low R suggests edema) Measure nonaffected limb; not valid to the measurement when interpreting results (e.g., abnormally low R suggests edema) Measure nonaffected limb; not valid to the measurement when interpreting results (e.g., abnormally low R suggests edema) Measurement when it is a suggest of the measurement when it
for research but permits determination of body compartment distribution Use electricity-isolating material (e.g., towel) between arm and trunk and between thigfu Note race; use race-specific BIA
equation, if applicable Disease Gonditions Cardiac insufficiency Liver failure Abnormal serum electrolyte concentratrons Hypothyroid Edema interferes with measurement Ascites/edema interferes with measurement Ascites/edema interferes with measurement Ascites/edema interferes with measurement accuracy Edema/altered ion balance interferes with measurement Ascites/edema interferes with measurement accuracy Edema/altered ion balance interferes with measurement Ascites/edema interferes with measurement accuracy Edema/altered ion balance interferes with measurement accuracy Edema/altered ion baccuracy Edema/altered ion balance interferes with measurement acc
Pachyderma Measure patient in stable condition Consider segmental BIA measurement Perform BIA when serum electrolyte sare within normal range Compare BIA results when serum electrolyte infusions Drugs that affect
water balance Dialysis Ascites puncture Orthopedic prosthesis/ implants (metal) Pacemakers, defibrillators Peripheral edema interferes with measufement Steroids, growth hormone, diuretics Hemo-l peritoneal dialysis Hip prosthesis, for example Implanted cardiac defi brillator Measurements are invalid if patient is abnormally hydrated If patient is abnormal hydrated If patient is abnorma
in stable condition, measurement should be aken at same time after medication administration Use special protocols; standardize measurement procedure (i.e., measurement procedure Measure monaffected body side; note prosthesis/implants No
interference with pacemakers or defibrillators is anticipated; although there are no known incidens reported as a result of BIA measurement, the possibility cannot be eliminated that the induced freld of current during the measurement, the possibility cannot be eliminated that the induced freld of current during the measurement, the possibility cannot be eliminated that the induced freld of current during the measurement, the possibility cannot be eliminated that the induced freld of current during the measurement, the possibility cannot be eliminated that the induced freld of current during the measurement, the possibility cannot be eliminated that the induced freld of current during the measurement could be monitored for cardiac activity.
Reprinted from Kyle UG, Bosaeu I, et al. The low-carbohydrate, high-fat diet restricts carbohydrates to less than 200/" of calories (and often less than 100/" in the beginning), and fat constitutes 557oto 650/oof calories, with protein making up the balance. The most common way HW is transmitted is via blood and semen during unprotected anal or
vaginal intercourse with an HfV-infected person. Mozaffarian D and Rimm EB: Fish intake, contaminants, and human healtlr: evaluating the risla and rhe benefits, JAMA 296:1885,2006. In the United Statesthe Food and Nutrition Board (FNB) of the Institute of Medicine OOM) has led the devel- opment of nutrient recommendations since the
1940s. Since the mid-1990s, nutrient recommendations developed by the FNB have been used by the United States and Canada. Genetics the scienceof inheritance. Layke JC, Lopez PP: Gastric cancer: diagnosis and treatment options, Am Fam Physician 69:1133,2004. "We
are here to talk about your dietary change experiencesup to this point. Enteral NutritionSupport 509 Enteraland Parenteral CHAPTER 20 i Intervention: No further intervention: No further intervention (Monitorfor change in status) Diet + supplements > 75% of needs Initiateenteral feedings AssessGl access Obstruction? Infans with CLD and BPD have special short- and
longterm nutritional requirements and care considerations related to both their prematurity (seeChapter 43) and their pulmonary status. The general goals of nutrition care are to supply adequate nutrient intakes, promote linear growth, maintain fluid balance, and develop age-appropriate feeding skills. 5 Weightloss score (unplannedwt loss in 3-6
months) = 0 Wtloss 1 0 % Acute disease effect score Add a score of 2 if there has been or is likelyto be no nutritional intake for >5d I ;: Add all scores Overallrisk of malnutritionand managementguidelines 01>2 Low risk Routineclinicalcare -Repeatscreening Hospital:weekly Care homes:monthly Community:annuallyfor specialgroups(e.9.,those >75
yearsold) Mediumrisk Observe -Documentdietaryintakefor 3 d if subjectin hospital or care home -lf improvedor adequate intake, littleclinical concern; followlocal policy -Repeatscreening Hospitalsweekly Care home: at least entry least 
supportteam or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase overall nutritional Oriental medicine or implement localpolicy -Improve and increase or implement localpolicy -Improve and Improve -Improve -Improve
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protein-caloriemalnutrition, 4r9-420 PacificIslandersfood patterns, 356t PA coefficient, 35 pain disorder, nutrition, I I 12t PAL. Krall EA: The periodontal disease, Ann Period.ontol 6:209, 2001. Of all causes of death, stroke is the third leading cause of death, behind
CHD and cancer. From 1993 to 2003 the number of deathsfrom stroke decreased by 19% (Thom et a1., 2006). Also it is difficult to aspirate the stomach contents, and the residuals may contain more secretions and gastric fluids than formula. High sodium intakes, particularly in association with a low calciumintake, can contribute to
osteoporosisbecausethey result in increasedcalciumexcretion(Massey, 2005). r B ' i,. As a result, the Food and Drug Administration (FDA) askedfirms that market drugs containing PPA to discontinue them voluntarily. The DV for vitamin D: 5 mcg = 200 IU. When menseswere resumed in these athletes, bone mass increased, but eventually plateaued at
a level lower than that of sedentary women. An evaluation of the daily recommendediodine intake (Braueret al., 2005). One hundredandnventy three pregnant Tirrkish women were evaluated for urinary iodine excretion and were found
to be mildly iodine deficient in the first and third trimesters and moderatelyso in the secondtrimester according to WHO Criteria (Gultepeet al., 2005). Micronutrients No clear evidence who do not have underlying deficiencies. Exceptions include folate
for the prevention of binh defects (ADA 2007). Vertical-banded gastroplasty is the most popular form of gastroplasty is the lap-band gastroplasty is the lap-band gastroplasty is the lap-band gastroplasty is the most popular form of gastroplasty is the lap-band gastroplasty is the most popular form of gastroplasty is the lap-band gastroplasty is the lap-band gastroplasty is the lap-band gastroplasty is the most popular form of gastroplasty is the lap-band gastroplasty is the l
depending on the weight reduction and clinical progress of the patient. Since then she has been on a fruitbasedvegetarian diet. Th! physiology of older women increases the risk of ",transmis- sion becausethe vaginal walls are thin, with easy accessfor the virus (CDC, 2006a; Gebo, 2004). Why did you not choose 12?" "How do you generally feel about
following this new eating pattern?" Nways provide positive confi dence-building statements: o "It is great that you." . Gilbert GH et al: Twenty-four month incidenceof root caries amonga diversegroupof adults, Caries Res35:f66,200I. Complex carbohydrates are preferredover simple sugars. Figure 25-2 shows the formation of dental caries. definition
959 steroids,5T as muscle-building supplements, 609-610, 609b commonly abused, 609b sterols, in medical nutririon therapy, for cardiovascular disease.858 stimulants,causinganorexia,446b stimuluscontrol, in obesitymanagemenq544 stoma abdominal, with percutaneous endoscopic gasuostomy,510 definidon, 506 stomach
cancer,s)..rnptoms/nuuitional consequences, 655t carcinoma, 665-666 digestion,10 digestiveprocesses, 3 disorders,660-669 inflammarion. An integral strategy to reduce foodborne illness is risk assessmentand risk management
normal bone mineral density, Osteoporos intake and risk of protein Dietary et al: HJ Wengreen osteoporotichip fracturein elderly residents in Utah, J Bone Miner Res 19537, 2004' Woo J et al: A randomized controlled trial of Tai Chi and resistance exercise on bone health, musclestrength, and balance in community-living elderly people, Age Ageing March
13,2007. WongJM et al: Colonic health:fermentationand short-chain 40:235,2006. Alcohol . Munter P et al: Tiends in blood pressureamongchildren and adolexens, JAMA 29 :2107,20M. Some patients have few oveft symptoms and relatively significant disease; others may have considerable discomfort without erosive and long-standing
consequences. Regardless, reflux sy'rnptomsdeserve appropriate evaluation and followup. Mitochondria in eachcell also contain DNA that gives rise to a limited number of proteins. The majority of these genesare involved in housekeepingneeds related to maintenance of the
mitochondrion and its energy-producingactivities. fu with nuclearDNA, changesin mitochondrialgenescanlead to disease. For example, Wolfram syndrome, a form of diabetes with associated deafrress, wasone of the earliest disorders to be traced to mitochondrial DNA. Conformity versus autonomy. and Integrative Gare 485 Dietary Supplementation 18 is
Intervention: CHAPTER ably. Instant Breakfastwith whole milk 1 c cottagecheese % c pineapple 1 c applejuice 6 graham cracker squares 1 pear kcal Protein (g) Plus 1500 kcal (Served Between Meals) 1. At this time, universally
 accepted, evidenced-based guidelines for nutrition screening and assessmentfor children diagnosed with cancer do not exist (Ringwald-Smith et al., 2006). At what point in the transition from enteral nutrition from enteral nutrition? Physical activity is the most variable component of energy expenditure
Genetic research is helping to clarify the pathogenesis of disease, which includes the influence of bioactive components in food. Prevalence rises from less than 10% for individuals in the 20- to 29-year age-group to 45% in the 60- to 69-year age-group, suggesting possible interactions between the process of aging and the cumulative effect of increased
sugar (or perhaps other carbohydrates) consumption. many individuals, especially because the United States and Latin America nighttime meals are often the largest meals of the day and are part of socialization or recreation. Pathophysiology It is currendy believed that, in response to a decreasing GFR, the kidney undergoes a series of adaptations
to prevent this decrease. Although in the short term this leads to improvement in filtration rate, in the long term it leads to an accelerated loss ofnephrons and progressive renal insufficiency (Gble 36-3). nal.usda.govlfiric/foodcomp. SchoellerDA: Measurement fenergy expenditure in free Jiving humans by using doubly labeled w ter, J Nutr I I 8:1278, I
988. RobinsonM: Communication andheahhin a muhi-etbnicsociety, Bristol,ttK, 2002, PolicyPress. Such reductions in mealtime rapid-acting insulin for postprandial exercise resulted in a 7 50/odecreasein exercise-induced hypoglycemia. Saccharin, aspartame, neotame, acesulfamenotassium, and sucraloseare nonnutritive sweetenerscurrendy
 that meet at least one of the following criteria: 1. Following this phase, further weight loss may be considered. The ryrnptomsof acute gasuointestinalg\{HD are severe, and individualsmay experiencegastroenteritis, includ- ing secretory diarrhea, abdominalpain, nausea, and vomitmedications, a phased ing. Mortality Diseases of the heart and stroke
causemost deaths in both sexesof all ethnic groups. Which other complementary approachesmight be appropriate to help Matthew accomplishhis health goals? CancerNefzt; orhClinical PracticeGuidelinesin Comprehensiae May 30, accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. 987. *Intakes between the minimum and maximum levelsar@accessed from www.nccn.org, Oncolog-v.1.2004, 2006. *Intakes between the minimum and maximum levelsar@accessed fr
scoredproportionately, exceptfor saturatedfat and sodium (seell). Within the geneare sequences of nucleotides(exons) that correspond to the amino acidsin the gene's protein product. The key factors in successful home nutrition support therapy are careful and coordinated discharge planning as well as patient and caregiver education
Contrary to old theories, Totalfat..-..... From 558 PART4 | Nutritionfor Healthand Fitness NutritionManagement of Unintentional WeightLoss Concern Tlps Arxiety, stress, depression Antidepressantscan help; monitor choice to be sure they do not contribute to weight loss. Using appropriate hand-washing techniques, properly handling poultry and
 eggs, washing utensils and surfaces to lessen the risk of cross-contamination, and using food tlermometers to make sure that a cooked food reaches an internal temperature of 165' F are steps that should be encouraged by nutrition and health professionals. Oral immediate-releaseB12is increasingly used, but effectiveness in reversing neurologic
 abnormalities has yet to be established (Solomon, 2006). NI meat to be consumed as food must be slaughtered with a ritual letting of blood while speaking the name of God. Herpes zoster (shingles), involving at least two distinct episodesor more than one dermatome. You are planning a sessionon nutrition for dre cliens and their families who
participate in dre Ougatient Pulmonary Rehabiliution Program. "Where does this leave you now?" Arranging for the NextGontact The counselor must take this process slowly and not assume that the client is ready to change, gasric pain. - Cuadros de casos clínicos y aplicaciones. Durable medical equipment and supply dealers provide catheters and
 supplies and teach people how to use them at home. IrJ.owwould you expecttheir diets to be different? In general, this metabolic syndromeconsistsof some level of atherogenicdyslipidemia, elevated bloodpressure, elevated plasmaglucose, and a prothromboticand proinflammatory state (Grundy, 2006). To date, at leasr four definitions of
metabolicsyndromeexist, and eachvariesin its predictability of CVD events (Saely et al., 2006; Athyros et al., 2006; Athyros et al., 2006; Diamantopouloset al., 2006). The most recenr is that proposed by the AFIA and the National Heart, Lung, and Blood Institute (Grundy et al., 2005) (Thble 32-5). The nutrition professional can use laboratory data to support subjective data
and clinical assessmentfindings. Peripheral access refers to catheter tip placement in a small vein typically in the arm. AndersonlJB et al: Soy isoflavones: no effects on bone mineral content and bone mineral density in healthy, menstruating young adult women after one yea4 Am Coll Nut 2 I:3gg, J 2002. Most CHD and strokes are the result of
ischemia, or impaired blood flow. Moore LL et al: Intake of fruits, vegetablesand dairy productsin early childhood and zubsequenrblood pressurechange, Epidmiolog 16:4,20f5. Only fish with fins and scalescan be eaten; thus no shellfish or eel is permissible. 2t I WeightManagement549 CHAPTER Results of U.S.Department Diets of Agriculture Review
of Popular Scientific Area Finding Weight Ioss Diets that reduce caloric intake result in weight loss; all popular diets result in short-term weight loss if followed. Matthew "eats healthy," is at a normal weight, jogs daily and takes a number of dietary supplements to improve his energy level, to manage his stress, to help him sleep, and to protect against
heart disease(his father had a heart atrack in his 50s). consumerlab.com,/ Officeof DietarySupplements and IntegrativeCare 487 DietarySupplementation for asthma, CochraneDatabaseSystRea CD003538, 2004. Finally identifying health care providers and
 researcherswho are actively working in this area can be invaluable in terms of increasing awarenessof safety issues, understanding mechanisms of biologic activity, and assessingthe level of evidence for clinical efficacy. rroddns 'e*nlee* Suunp peq q eq uec s,u.o11rd tsnru ruarredagr;1 'elgrssodsr (a13ueaarSep-g6e s?trs tuengdetp re) rq8lrdn e^?qot
lurtrodrur srt1'uoBe:rdseJo >lsrJqrueuedE esBerJur deru tr :aprspatcaJe er1lpJB/rordurnls or dpoq erp sesncc eprseuo ierp dpoq aqr uo ssau{Be,r\ sr sgsaredrua;1 Jo 'slrsuelnSuqeee.rDdepe cgrcads pueuuocer dleq leru lsrderaql leuonednccouy .rualqord e sr dpee ro enSrre; dlaq uec sSurpae;luanba4 &eDes JI '1prug 'pueq lueurruopuouarp Sursnol
osle pue pu?q auo qlmr Suneaot tsn(peot e^eq,{eurtuaned aqa .rueseeldun pue tlnJgJrp Sunea eqeruleur epls tueunuopuou a{t uo eJuerlal ^\eu E ruo{ Sunlnsar uorteurpJooJ rood 'dpoq etp;o ePISlueuruop aqt uo sJnJJosrs.,(1ered Jo sseulBe^rqrullJI '(S-tl lrrlqrsrp atqrJ Sunpsa-rarp sourrurelep 'e>Ftur flererp lrrrtser Jeql SNO eql;o uor8er percege
er{J -rry leru ersaur4s., {pe^rpJet .ro 'eseasrps,uor5unun11 'fspd IEJqeJeJ rflr,l.t.JnJJo sE suorlelseJrueru Joloru d;elrmlorrur Jo Isluaureloru JDSEds:eseasrps(uosuDlJtd ur s? The new stomach capacity may be as small as 20 to 30 ml, about I oz, or about 2 tablespoons. Institute of Medicine, Food and Nutririon Board:Dietary reference intakesfor
aitamin A, aitamin I(, arsenic,boron, chromium,copper, iotline,iron, molybdenum, nickel,silicon, aanadiumandzinc,WashingtonDC, 2001,National Academies Press. Lipids. The impact of nutrient intake systemically affects the development, maintenance, and repair of the teeth and oral tissues. Deficiencies of several vitamins (riboflavin, folate, 812, and
C) and minerals (iron and zinc) may be first detected in the mouth because of the rapid tissue turnover rate of the oral mucosa. Tiaits resultingfrom mitochondrialgeneshave characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave a characteristic inheritance pattern, but it is non-Mendelian because mitochondrial geneshave mitoc
inheritancecalledmitochondrial inheritanceor maternalinheritance. This biologic studies that trace lineageand populationmigration patterns historical physical activiry in older women, Med SciSports
Exerc 36:2082,2004. This task is accomplished by the continuous filtration of blood and by alterations (secretion and resorption) in this filtered fluid. 'srtugut proterunerflqlr.n stuenedur 'e5gg7'sasn rtaqi puaguaraalddns puusqraHtronepunoCsprrqtrv tueuqeeJtpJepuets 'e sepeteJrpursreuosrupard esop-,t\ol:pellosed:-IC uuo3 L00Z'6 lrrdy
pessecce'TaprnS8rupTsuonrpuocTSro'sr-rlrqlre '5002'Ztg6 '.r.r,vr '1gg7 'aptn8 '{apot 8up sryrquv:uortepunod splrrprv f pa14qtnogtrreraarpcuoerd? Wyatt G, Post-WhiteJ: Future direction of complementaryand alternative medicine (CAM) education and research, Semin OncolNarc2l(3):215,2005. and MW-l3, multivitamin 520 PART3 |
 Nutrition Gareprocess common drug additives are insulin for persistenthyperglycemia histamine-2 antagonists to avoid gastroduodenal stressulceration (I (umpf et al., 2005). Any weight loss, whether fast or slow, results in a loss of the extra muscle that has developed to support rhe excess adipose tissue. Keep in mind that chronic diseases involved that has developed to support rhe excess adipose tissue.
complex interactions 378 PART 3 I NutritionCareProcess among genes and bioactive food components, and unraveling the details will require population and intervention studies large enough to have the statistical power needed to draw meaningfirl conclusions. The goal here is for the client to realize that a problem exists, that concern results, and
that positive steps in the future can be taken to correct the problem. A state of equilibrium is eventually reached at which the energy intake as a risk factor for fracture, Int 16:737, 2005. le J xnelJ1"lec ' l00Z' 6 LSZ:S| [ AASUI'lSolounuurr ur sesn pue elor str :CI uruell1 :JW Burotue3 'gg
eonlaq't S00Z'bZ dlnf pessacce'3ro'snrrglre',u,n'ra otq{ :autau a w s1ne1 srtrJrltJe proteunar{J ur sserts e^rteprxo :gI ^a(seuBJV,Vg rlJlr^oq{eJtso'1661'L09tZ6 utry pary,senrlrqrssod rqnedereql pue sturod,trar,rcrrauaSoqled :snrJrpJeprolBruneqr ur rusr1oqeterueuoq pue uonerurue3ful :C ureH ,4;euzleg '2007. Reduce or withdrawuseof
NSAIDs. Genes with characteristics that are expressed when only a single copy of an allele is present are called dominant (i.e., the phenotype of the variant allele is the predominant one). It is not a carbohydrate but is a polymer composed of phenylpropyl alcohols and acids. There are two distinct categories of tissuecomponents disease: systemic,
autoimmune RD and nonsystemic OA. Considerations When Deciding on Flome Nutrition Support 1. Although LDL cholesterol may increase because of a shift from small and dense to large and buoyant LDL particles, these types of particles are less atherogenic; thus the increase in LDL cholesterol may not be a concern (Inzucchi, 2002). 1150 PART5
MedicalNutritionTherapy Phenylketonuria . Weight 4. They were developed to help consmers detemine if a food contains a lot or a little of a specific nutrient. The initial rapid weight loss from diuresis is secondary to the carbohydrate restriction. In addition, a dietary supplement intake assessmentform should be completed by each patient/client and
reviewed in detail by the health care provider (Figure 18-6). With depth-of-field and perfect framing, these images are clearly the work of pros. DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty quality are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty gritty are the hallmarks of DeviantArtOut-of-the-box artistic flair and an attractively gritty gritty
the DV provided in one serving. Resistancemay also surface as interrupting, when the client breaks in during a conversation in a defensive manner. Remind that a nutritional sapplement being taken Record batch number from botde in case of an
adverse event Record patient perception and expectedlevel of compliance Monitor efficacyand safery including health outcomes and adverseeffects. fupiration is a concern for patients receiving enteral nutrition and is also a controversial topic since many experts believe the issue is not aspiration of formula into the airway, but aspiration of throat
contents and saliva. The amouns of the carotenoids were shom in seven major groups, as neoxanthins (neonnthin, p-cryptoxanthins, and related isomers), lycopenes (lycopene and related isomers), p-carotene (all trans p-
carotene and cri isomers), and B-carotene (tll trans p-carotene and cir isomer). Dietetics and health professionalsworking in food service will be expected to assisrin planning for disuibution of food in an emergency situation, choosing food distribution sites, establishingtemporary kitchens, preparing foods with limited resources, and keeping prepared
food safe to ear through FIAACP procedures (Puckett and Norton, 2003). Daubase Linde K et al StJohn'swort for depression, Cochrane SystRea, CD000448April 18, 2005. Nutrition withfoodsor liquidsas tolerated Intactprotein Generalpurpose
formula(polymeric) Hepatic Low protein High carbohydrate Low fat Defined/hydrolyzed protein Lowfat (monomeric) Severe stress/trauma High protein Glutamine Arginine Omega-3fats Nucleotides Diabetes Protein15% calories Fat 30% ca
Remainder...... Individuals with altered taste acuiry (dysgeusia, hypogeusia, hypogeusia, hypogeusia, ageusia) may benefit from increaseduse of flavorings and seasoningsduring food preparation. The kidney has almost unlimited ability to regulate water homeostasis. @2fi)l American Dietetic Association, Inc., The American Dietetic Association. Some provide classeson
selfinuospection, behavior modification, and nutrition. The DV for iron is 18 mg. CommonDietary Patterns: Native Americans (Americans Indians and Alaska Natives) often live on federal Indian reservations and in small rural communities. Current surveillance systems are designed to detect foodborne illness outbreaks resulting from
food spoilage, poor food handling practices, or other unintentional sources, but they were not designed to identi$r an intentional attack. Updated by Katy G. Worldwide The enormous disparity of HfV infection, accessto health care, and AlDS-related deathsthroughout the world becamevisible at the thirteenth World AIDS Conference in Durban, South
Africa, in 2000. Repors of the few human investigations suggest that intermittent PTH therapy will be a boost to the therapeutic arsenal because it increases osteoblastic formation of new bone tissue, especially in trabecular bone, and reduces fractures (Thomas, 2006; Dempster et al., 2001). During sleep gastric emprying is already
delayed, salivary secretions are decreased, and swallowing occurs less frequently. Maria mentioned that she tried numerous diets while a teenager, when sheweighed 170 lb for 3 years. What guidelines would you offer to Maria at this time? Kalnins D et al. Enteric-coated pancreatic enzyme with bicarbonate is equal to standard enteric-coated enryme
in treating malabsorption in cystic fibrosis, J Pediatr Gastroenterol Nutr 42:256,2006. If toleratedafter 8 hr, advanceto Socc/hrx 24 N. Most behavioral programs try to achieve a 0.5- to l-kg weight loss per week by providing calorie, fat grams, and physical activity targets, which are discussedduring the goalsetting phase of the program. A-fter
determining that a manufacturer and its product meet these standards, compare prices among products of similar quality. Because HDL cholesterol was not significantly different during this period, the declinein total cholesterol
loweringdrugssignificandyincreasedfrom 3"/oin 1988-1994to 9o/oin the 1999-2002 National Health and Nutrition Examination Survey low-density lipoprotein. Energy Box 35-1 lists factors that can make meeting energy needs difficult. Academy National Institute of Medicine, of Sciences FoodInformation Council International htq://ific.org
FoodGuidance System MyPyramid http://www.mypyr amid.gov/ for HealthStatistics National Center www.nutfltlon.gov W-ww.nutfltlon.gov EatSmart, PlayHard http://www.Tissue weight gain and resultant obesity is a
common problem after transplantation. Only the forequarter of the quadruped may be used, except when the hip sinew of the thigh vein can be removed, in which casethe hindquarter is also allowed. americanheart.org American College of Cardiology/American HeartAssociation for Chronic Guidelines HeartFailure IV I 12/ 12/ el 54 hnp./
circ.ahajournals.orglcontent/fu HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on HeartFailureSocietyof America www.nhlbi.nih.gov/ Website National Institutes of Health on Heal
Ti,ansplantationProceedings37:4011, 2005. fucorbic acid accounts for 50o/" to 55o/o,and glyoxylic acid accounts for 50o/" to 70Y" of urinary oxalate. JohnsonRK: What are peoplereally eating,and why doesit matter? Nutr TbdayI5:40, 2000. Her parents report that she now is experiencing food jagp and other typical toddler behavior at mealtimes. In the
case of stress ulcers, continuous enteral feeding and early postoperative feeding may help maintain the mucosal barrier and GI circulation, thus reducing the risk of stress ulceration. Kistorp C et al: Plasmaadiponectin, body massindex, and monality in patiens with chronic hean failure, Circulation the risk of stress ulceration. Kistorp C et al: Plasmaadiponectin, body massindex, and monality in patiens with chronic hean failure, Circulation the risk of stress ulceration.
and potential modifications. Pyelonephritis Pyelonephritis Pyelonephritis, a bacterial infection of the kidney, does not require extensive dietary management. Pneumothorax and hemoptysisare common. Autosomal-recessivedisorders of lipid metabolism also exist. PiccianoFM: Who is usingdietary supplements and wharare they using? TPN infusion remained at the
goal rate. Five percent to 10%" of patients with severe gastroesophageal reflux do not respond to medical therapy and repeatedly deal with symptoms and complications. It can be passedthrough the esophagusand into the stomach or upper small bowel. The ability to tailor food to the genetic and (5) identifiingmetabolitesthat are usefulin
monitormakeup of individuals is expected to be an important ap(the scienceof metabolomics, ing disease progression see plications of German, 2005; German et al., 2003), and for nutritional pharmacogenomics. genet.sickkids. Candidate genes, gene variants, and diet-gene interactions are being
investigated for type 2 diabetes, osteoporosis, and obesity. On radiograph confirmation reinsert the NGT if 60-ml syringe with Luer Lock desired. Ionuoc or e>lsreqs persaSEnse eq 'es?esrp srueruelddns;o lsII B silueseJdpue nod easol seluoJ er {S aql;o uorssar8ord eqr pw stuordurrGJaII eseerraPor urerSord ssol-rq8rerne lnoqB uEpDeIPPaJelsl5er u
rprrn 4eads eqs rerp uopBrlpetu 8urrno11o; ured crnseS.{q pacuepr.tese osn CIVSN ol PelBIaJ uoprereluluoqerrpeu pooC : $|SOUEpt0UOlllrlnN luerulEaJl sprrtpre ro; esnSurpre8e.rsuonsanb,(g pecuepna se sluaurelddnspue sqreqJo esn or peluler rrcgep e8pal,nou4 uopulnupu?pood :z sts0u6pt0uotltrlnN fideraqluo$rrFN tPclpaw! I IUVd Z90l '
g66l' g auraruI 7007'btts I \srJP-d) s:7.t ragrcrouruqd uuv 'sqr.rqlreoalso ,33 JoJouruesoJnlC oruretsds :V JeDV ssel.ltl'oq uuv'srso;a1cs ur suorlelseJrueu e,rpsaSrq ererue3eq nC ?aW . J oz Yogurt, plain, low-fat, 8-oz container Prune juice, % cup Carrot juice, 7+ cup Blackstrap molasses, 1 Tbsp Halibut, cooked, 3 oz Soybeans, green, cooked, % cup
TLna, yellow fin, cooked, 3 oz Lima beans, cooked, % cup Winter squash, cooked, % cup Soybeans, mature, cooked, % cup Tomato juice, % cup Tomato juice, % cup Tomato sauce, 7z cup Peaches, dried, uncooked, 7+ cup Prunes, stewed, % cup Milk, nonfat, I cup Pork chop,
center loin, cooked, 3 oz Apricots, dried, uncooked, 7+ cup Rainbow trout, farmed, cooked, % cup Plantains, cooked, % cup
Split peas, cooked, % cup Yogurt, plain, whole milk, 8-oz conrainer Milligramspel Servlng 694 664 655 610 595 579 549 53+ 531 530 517 498 490 485 484 448 443 442 439 422 4r9 417 405 398 382 382 378 375 371 370 368 366 365 365 358 358 355 352 % Daily Value* 19.8 18.9 r8.7 17.4 t7 r6.5 t5.7 15.3 t5.2 15 . Chemotherapy can be
expected to produce nausea, vomiting, and anorexia (see Chapter 37). The classic triad of anemia, neurologic deficits, and epithelial atrophy of the tongue was well recognized at the turn of the century. MedicalNutritionTherapy Assessment Individuals with CF are at high risk for malnutrition. For those who have lost weight on a \rLCD, limiting
dietary fat intake and maintaining physical activity are both important factors for the prevention of weight regain basedon 3-year follow-up study. For example, the brain uses the major por- tion of the approximately 200 g of glucose required per day. The true mechanisms are not completely understood, but the use of antioxidant compounds show
promise (Doug and Kauniz, 2006). Senna is a potent cathartic. However, it is critical that the client express ideas of what will work best. What would you have recommended improve her calcium intake from foods so that she could reduce USeFULwEBsrrES Consumer Labcalcium supplements http://www. On the other sideof the
equation, energy expenditure usually is elevated. This sinration appears related to pulmonary complications such as the degree of airflow obstruction, thus increased work of breathing. Histamine-2 antagonists Modified from the American Society for Parenteral and Enteral Nutrition: Safe practice for
parenteral nutrition formulations, JPEN J Parenter Enter Nutr 22(2):56,1998. Girdles Hip-Protector Wearing girdles with built-in padsto protect the hips during a fall hasbeendemonstrated in some, but not all, studies to significantly reduce the rate of fractures in a wellcontrolled investigation. These diets produce rapid weight loss and are very
 restrictive. All animals and fowl must be inspected for disease and killed by a ritual slaughterer according to specific rules. Alexander JW, Gottschlich MN[: Nutritional immunomodulation in burn patients, Crit Care Med 18:5149,1990. Amelioration of ryrnptoms occurring between 6 and 12 months is variable, and in extreme cases, arrest of
 diseaseprogression is the most that can be accomplished. Prompt initiation of therapy is imperative. Thble35-4 showshow energyintakecanbe boosted. Homemade or proprietary nutritional goals. U-100 syringesdeliver Glucose-Lowering
Medications for Type2 Diabetes Class and Generic Names Sulfonylureas (Second-generation) Glipizide (Glucotrol XL) Glyburide (Glucotrol XL) Glyburide (Glucotrol XL) Biguanide Metformin (Glucophage) Metformin Extended Release (GlucophageXR) Thiazolidinediones
Pioglitazone (Actos) Rosiglitazone (Avandia) Alpha Glucosidase Inhibitors Acarbose (Precose) Miglitol (Glyset) Recommended Dose 2.5-20 mg singleor divided dose; single dose for XL 12 mg daily 2-8 mg daily 2-8 mg daily 25-100 mg three
CHAPTER Origin 783 30 I MedicalNutritionTherapy of Nondiabetic MellitusandHypoglycemia for Diabetes Glucose-Lowering Medications for Type2 Diabetes-cont'd Class and Generic Names Incretin Mimetics Exenatide (Byetta) Amylinomimetic Pramlintide (Smylin) Principal Action Enhancesglucosedependentinsulin secretion and
suppressespostprandial glucagon secretion 0.5o/oto 0.9o/o Initially dosedat 5 mcg rwice a day-at breakfastand lunch; increased to 10 mcg twice a day-at breakfastand lunch lu
Combined action of each medication 2.5/500mg to 5/500 mg daily 2.5 mg/500 mg to 4 mg/500 mg to 4 mg/500 mg daily 1 mgl500 mg to 4 mg/500 mg daily 2.5 mg/500 mg daily 2.5 mg/500 mg daily 2.5 mg/500 mg daily 1 mgl500 mg to 4 mg/1.0 mg daily 2.5 mg/500 mg daily 3.5 mg/500 m
Almonds, 1 oz Sunflower oil, high linoleic, I Trsp Saffiower oil, ligh cleic, 1 Trsp Saffiower oil, high oleic, 1 Trsp Wheat germ, toasted, plain, 2 Trsp Jbmato puree, % cup Tomato sauce, % cup Tomato sauce, % cup Tomato sauce, % cup Tomato sauce, % cup Tomato puree, % cup Tomato sauce, % cup Tomato sauce, % cup Tomato sauce, % cup Tomato pasted, plain, 2 Trsp Jbmato puree, % cup Tomato sauce, % cup Tom
This Peanuts, I oz Avocado. Me d i c an l utritio n h e ra p fo y r U l ce rs For several decadesdietary factors have gained or lost favor as a significant component in the cause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and peptic ulcer disease. Since the identification of H. l f L > 0 ",0 *; tt t"; a = d-f,F o o >: 9X L225 APPENOIXES or Clause and treannent of dyspepsia, gastritis, and treannen
.g E 6 x 6 g lrl .9 = 5 c c o z zh 6n () F oE ' di Fu -aE q I q H 93 io v6 tq!; -5 9l .v EH .9tr PX OO a v s Z E) cl -oo63 .q oa o q € q o * tI rq l. In responseto a fall in blood pressure, the s1'rnpatheticnervous system secretes norepinephrine, a vasoconstrictor, which acts on small arteries and arterioles to increase peripheral resistance and raise blood
pressure. The kidney regulates blood pressure by controlling the extracellular fluid volume and secreting renin, which activates the renin-angiotensin system (Figure 33-2). \ltamin D insufficiency is considered more corunon at latitudes closer to three equator but still in the northern hemisphere than previously thought because of reduced exposure to
sunlight during the year (Flypponen and Power, 2DD7; Lamberg-Allardt et al., 2001). McCallum PD: Nurition screening and assessmentin oncology. Vegans who may consume as much as 50 g of fiber a day would be the most likely individuals to have a significant depression in intestinal calcium absorption (see Chapter 3). Biomed Pharvnacot
Leitzmann C: Vegetarian diets: what are the advattages? Medications Glucose-Lowering Medications for achieving euglycemia in persons with type 2 diabetes. Intermittent Drip Quality-ofJife issuesare often rhe reason for the initiation of
intermittent drip feeding regimens, which allow mobile patients more free time and autonomy compared with continuous drip infusions. This attention of eating habits and increased physical activity. Wiithrich et al: Milk consumption does not lead to mucus production or
occurrenceof asrluna, J Am CollNutr 24:5475, 2005. In some cases gastric ulceration develops despite relatively low acid output. Because zinc absorption is greater from a diet rich in plant proteins, vegetarians may become deficient if they are not monitored carefully. >4 oB G9 oO rr ,\ r) u o o9 .Eg 'o> P.a @9 :q (, E
d.tib6o9tr tra\'d d6790.= (2.= x.E-ON .49 bo jj o9'1{ Eg g9 us!: o YP!66 > t!'l GV:t oo 5 d.= i e il-e'- o-H.. Dietary SupplementHealth and EducationAct of 1994, Public law 103-417, October25, 199+. Since obesity and diabetes mellitus are common, it is important to merge cultural sensitiviry with diet and health issues. Hormones affect LPL
activity in different adipose tissue regions. Armed with extensive knowledge of one's potential and the associated lifestyle choices, humans will have the option to live to their full genetic potential throughout a long, healthy life. of andComparisons Between Gharacteristics andDuodenal Ulcers Gastric Although gastric ulcers can occur anywhere in the
stomach, most occur along the lesser curvature of the stomach (Figure 26-3). With the increased prevalence of diabetes in the United States, uncontrolled hypertension with diabetes is an important public health problem that warranrsartention. Describe Thomas' nutrition status. What assessment parameters are used for evaluation? Was preoperative
TPN indicated? (Counery Professor Marinos Elia, Editor; BAPEN, 2003 ISBN 1 899467 70X. guideline.gov/summary.aspx? The client is a valuable resource in finding solutions to problems. 644 PART4 Nutrition for Healthand Fitness Table 2 5-3). Nonverbal listening skills consist of varied eye contact, attentive body language, a respectful but
close space, adequate silence, and encouragers. Eye contact is direct yet varied. N YT E R M S activities of daily living (ADLs) includes walking, bathing, dressing, use of the toilet and performing household chores; the ability to perform these activities can be used to evaluate the severity of rheumatic diseasefor an individual arachidonic acid a
polyrnsaturated fatry acid with four double bonds on the 5,8, 11, and 14 carbon positions; a precursor for eicosanoidproduction chronic fatique syndrome (GFS) a disorder characterized by extreme fatique syndrome (GFS) and the syndrome (GFS) are syndrome (GFS) and the syndrome (GFS) and the syndrome (GFS) are syndrome (GFS) are syndrome (GFS) and the syndrome (GFS) are syndr
concentrating; and painful joints, muscles, and lyrnph nodes cytokines small proteins, including 11'rnphokines and multiple tender
points, especially in the neck, spine, shoulded and hip gout a type of inflammatory arthritis resulting from deposits of needlelike crystals of uric acid in connective tissue, t}re joints, or both juvenile rheumatoid arthritis an inflammatory autoimmune disease of the synovium (lining of the joint), resulting in pain, stifEness, swelling, and joint damage and
loss of function; most common form of arthritis in childhood; may also be associated with rash or fever; often presents symmetrically osteoarthritis (0A) a nonsystemic joint disease characterized by degeneration of the joint cartilage, result in bone
spurs (osteophytes) in and around the joint; also called degenerative joint disease 1CI42 prostaglandins (PGs) a group of physiologic processes; the series designated with a subscript 1,2, or 3, depending on the number of double
bonds in the hydrocarbon skeleton and the fatty acid from which it was syrnthesized purines the nitrogenous basesadenine and guanine, which are constituents of nucleoproteins, the metabolic end product of which is uric acid Raynaud'ssyndrome ischemia or coldnessin the small extremities such as the fingers rheumatic disease(RD) manifestations of nucleoproteins.
inflammation and loss of function of connecting and supporting body structures, including joints, tendons, ligaments, bones, muscles, and even internal organs; includes spondyloarthropathies, polyrnyalgia rheumatica, bursitis, tendonitis, and psoriatic, infectious or reactive arthritis rheumatoid arthritis (RA) inflammatory autoimmune disease of the
synovium (lining of the joint), resulting in pain, stiffness, swelling, joint damage, and loss of function of the joint; often presents symmetrically rheumatoid arthritis; a group of immunoglobulins that have been classified as antibodies scleroderma umbrella term for a
group of diseases involving abnormal grou'th of connective tissue that supports the skin and internal organs; literally means "hard skin"l can also affect blood vesselsand joints; also called systemic sclerosis Sjiigren's syndrome autoimmune disease targeting moisrure-producing glands most commonly resulting in diminished production of both saliva and
tears Sections of this chapter were written by Lisa Dorfrnan, MS, RD, LMHC for the previous edition of thrs text, CHAPTER 40 I MedicalNutritionTherapy for Rheumatic Disease1043 synoyialfluid transparent, alkalinefluid secretedby the syconditions such as Sjogren's gmdrome (affecting 1 to 4 milnovial membraneand locatedin joins lion) and
scleroderma also have a great impact on the Amerisystemiclupuserythematosus (SLE) an auroimmunedisease can population Q{IAMS, 2001). Many pumps are battery operated for up to 8 hours in addition to being electrically powered, allowing flexibility and mobility for the patient. Bautista LE et al. Is C-reactive protein an independent risk factor
for essential hypertension? However, most individuals with a problem dietary behavior are in a preaction stage that includes one of the following: precontemplation, contemplation, or preparation. See diagnosis, 826 diagnosis, 826 medical medical formula for essential hypertension? However, most individuals with a problem dietary behavior are in a preaction stage that includes one of the following: precontemplation, contemplation, or preparation.
management, 826-827 medical nutrition therapy,827 pathophysiology, 823-824 stages,824, 826,826f definition, 40 dietary reference intakes for,91,92t for premature infants, I 129 functions, 70t, 91 in foods, 827t in neural tube defect prevention, 828b metabolism, 90, 91f nutritional facts, 1287 requirements r n a d o l e s c e n c e2,5 2 t , 2 5 3 t , 2 5 4
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food allergy(ies). Foods with an acidic pH such as citrus juices, tomatoes, and soft drinks may cause pain when the esophagusis already inflamed. Temporary accessthrough subclavian catheters is common until the patient's permanent accesscan be created or can mature; however, problems with infection make these catheters undesirable.
professionals regarding the use of FDA approved pharmacotherapy (ADA, 2007). Nan is at risk for developing deficiencies which nutrients? Lymphoma, primary in brain c M. Dronabinol, synthetically produced marijuana, stimulates appetite in patients with cancer-related anorexia. Because clinical findings are subde, diagnosis of WKS is often made
at autopsy. The normal kidney can perform this function over a wide range of dietary flucruations in sodium, water, and various solutes. See Eicosapentaenoic acid ephedrine, ergogenic aid, 604t epigastric, definition, 654 epigastric discomfort,
659 eplageneucs definition. 364 genomrc rmpnntlng and, 373 epilepsy, 1087-1088, 1090 Epivir (3TC, lamivudine) nutritional complications of, 1002t EPOC, a 'ra t! I.E(E : {E {'Fo I 1244 APPENDIXES ooo o PE UU 22 E .9 : il OU Eril o : G.Eooo () Fa o - o ah ^ G oooOoo E oo oo !! EE 1245 APPENDIXES d's a: L246 APPENDIXES oo I G C) o E o .9 E CI
-c G c o I z €a.H 6 o v 'E* ;>' I bo A.= E UA -9r Qg OO6 9r.otr U i! m= tr.? FirstSession The first sessionis an important time to establish the counseling relationship. A combination of aerobic and resistance training is recommended. rrw. Hypotbeses 64:236, 20[5. These strategies include: reflecting, double-sided reflection, shifting focus, agreeing with
a twist, emphasizing personal choice, and reframing. In 2003 the Food and Drug Administration issueda public health bulletin concerning discoloration, 2004). With aging the prevalence CVD increases, with a doubling of rates between middle (ages 35 to 44 years) and
later ages (65 to 74 years of age). Establishing Rapport To build rapport, one begins by askingone or two questions that are relevant to important aspects of the client's life. LJ has a 2-year-old with food allergies and a 4-year-old. Factors Affecting Gariogenicity of Food Foods contain fermentable carbohydrates, the basis for bacterial action, which, in turn,
stimulates caries development. Expressempathy 2. TinanoffN: fusociation of diet with dentalcariesin preschool children, Dent Clin NorthAm 49:725,2005. A single instirution's 2)-year experience, Cancer103:863,2005. Dickinson HO et al: Magnesium supplementation for the management of essential hipertension in adults, Cocbrane Danbase SystRn
3:CD004610,2006b. Superiorvena cava Internaljugularvein Subclavianvein Externaljugularvein Lipid emulsions, available in 107" and 207" concentrations, are composed of aqueous suspensionsof soybean or safflower oil, with egg yolk phospholipid as the emulsifier. The preceding plus pharmacotherapy o Surgery plus an individually prescribed
dietary regimen, physical activitlz, and lifestyle modification program. Enteralto OralFeeding A stepwise decreaseis also used in the transition from tube feeding to oral fee
blood pressure and lipid profile in most paflents. iron. fbtal urinary nitrogen excretion was 27 glday. The primary causes of peptic ulcers are H. Therefore health professionals must intervene to help patients acceprmore modest weight loss and understand what can be achieved realistically with current treaffnent methods. For the exerciser with
diabeteswhose blood glucose levels may drop sooner and lower than the exerciseis important and may also assistin preventing hypoglycemia. Some of these are typical of triiodothyronine (thy'roid) d efi ciency. Diseases OtherChronic Although nutritional genomics applications
have made more progress to date in reference to cardiovascular diseaseand cancet research is underway for many other chronic disorders as well. Bruemmer B: Food biosecuriry, Ilm Diet Assoc103 687,2003. current erq Cardioaasc Delano MJ, Moldawer L: The origins of cachexiain acuteand Nu* Clin Pract21:68,2006. \tcious rycle-remaining stuck
versusunhealthy choices. Gruenwald J: PDRfor herbalmedicines, ed 3, Monwale, NJ, 2004, Medical Economics. Chitin and chitosan have been studied for their hlpocholesterolemic effect. These findings will be helpful in developing effective dietary approaches. Updated by Donna H. Between 35o/oto 650/oof patients admitted to hospitals today may be
malnourished. DNA methylation and epigenotypes, 70612,2005. Other alternatives include cannabinoids (dronabinoid) and benzodiazepines (lorazepam and diazepam). The anticipatory form of nausea and vomiting is a conditioned response that develops by the third or fourth rycle of treatment in about one third of individuals receiving chemotherapy.
NutritionSupport 519 and Parenteral Enteral I Intervention: Fluid Fluid needs for parenteral and enteral intervention. Controlled clinical trials of high-fat,
low-carbohydrate, low-fat, and very low-fat, and very low-fat dies are lacking; therefore no data are availableon weight maintenanceafter weight loss or long-term health benefits or risk. Oral high calorie-high protein supplements in liquid or pudding form may be needed to meet nutrient needs and optimize healing. Rapid infusion of carbohydrate stimulates insulin
release, which reduces salt and water excretion and increases the chance of cardiac and pulmonary complications from fluid overload. 10. A basicvitamin and mineral supplementmay be necessary depending on nutrition status revealed by the initial assessment. Ireton-Jones CS, Jones JD: Why usepredictive equations for energy expenditure assessment.
Kathy Flammond, MS, RN, RD, LD, CNSD KEYTERMS 24-hourrecall a method of dietary assessment in which an individual is asked to rememberevery thingeatenduring the previous 24 hourre ageus is a method of dietary assessment in which an individual is asked to rememberevery thingeatenduring the previous 24 hours ageus is a method of dietary assessment in which an individual is asked to rememberevery thingeatenduring the previous 24 hours ageus is a method of dietary assessment in which an individual is asked to remember every thingeatenduring the previous 24 hours ageus is a method of dietary assessment in which an individual is asked to remember every thingeatenduring the previous 24 hours ageus is a method of dietary assessment in which an individual is asked to remember every thingeatenduring the previous 24 hours ageus is a method of dietary assessment in which an individual is asked to remember every thingeatenduring the previous 24 hours agent as a method of dietary as a me
precisebodycombioelectrical impedance analysis position analysis techniquethat uses a small electricalcurrent to estimate total body water, fat-freemass, fat mass, and body cell mass hody massindex (BMI) weight (m)2; a definition of the degree of adiposity dietaryhistory a detaileddietaryrecord; may include a 24hour recall, food
frequencyquestionnaire, food diary and other information such as weight history previous diet changes, useof supplements, and food intolerances dietaryintal 20.0(>30 obese-): 0:1 BMI18.5-20.0 = 2 B M I < 18. It is estirnarcd that avoiding high-copper foods and restricting moderate-copper foods result in a diet of approximately 1 mglday
govlsci/techresources/Human Genome/hg5yp/ index.shtml Nation acle nte for rBiote change. 504 PART3 I NutritionCareProcess Mrs. The dilemma for the nutrition care provider is the paucity of evidence-basedresearch to support practice procedures. CHAPTER2
0 Intervention: Enteral and ParenteralNutrition Support 527 should be based on the company's ability to provide ongoing nutritional assessment, monitoring, and care plan revision. Given the technology for measuring vitamin B12levels in the blood, early detection during the preclinical phase of disease is the rule. D B ethN. We can look at ways to
meet your goals in the future. cdc.govlnccdphp/aag/aag oh.htrn, accessed November 3, 2005. 4. Lifestylemodification and a sense of self-efficacy appear to be a key to weight maintenance. Martinez ME: Primary prevention of colorectal cancer: lifestyle, nutrition, exercise, RecentResuhs Cancer Res 166:177, 2005. Siukosaari P: Level of education and
incidenceofcaries in the log 22:130, 2005. Box 20-2 provides a comprehensive list of complications associated with enteral nutrition. Perceptions can be shifted, and the counselor's role is to help with this process. not all. Iron also has other new- and
nonheme-containing enzyrnes, similar to the needs of other cells in the body. As a result, the science of genetics has significantly expanded in scope and includes the whole set of genetic information in an organism-its genome-and the interactions of the variour g.rer and their protein producrs with each other and the environment. USeFUL WessrrEs
3. Patients are taught to slow their rate of eating to become mindful of satiety cues and reduce food intake. In TERDISCIPLINARYUTRITION Optimal nutrition support requires the dedication and involvement of multiple disciplines. If fluoride is present in the saliva, the minerals are deposited in the form of fluoroapatite, which is
resistant to erosion. Fler lowest body weight was I 30 lb at age 30, mainaine d, for 2 years. U.S. Department of Agriculture (USDA): Organic food standards and labels, the facts, Washington DC,2002, http://w/ww.ams. The goal is to resume action efforts. Malnutrition is not uncommon in those who are obese, cachexic, older, or have undergone trauma
and in whom nutritional intervention is neglected. Furthermore, the nurrition statusof patients who are hospitalized for longer than 2 weeksdeteriorates (see Focus Oz. Malnurition in Hosoitals). Drinking water with a lemon or lime twisr or citrus-flavored seltzers or sucking on frozen tart grapes or berries or sugar-free candies may help.
Perimenopausal and postrnenopausal women have been reported in a few studies to have modest skeletal benefits from isoflavones because of low serum estrogen concentrations (Alekel et al., 2003), but other investigators have not been able to show skeletal benefits with isoflavone supplementation. Factors to consider include
the individual's prognosis, prescribed therapy, degree of malnutrition, and gastrointestinal function (e.g., severe CHAPTER 37 f MedicalNutritionTherapy for Cancer 983 diarrhea or malabsorption necessitatingbowel rest, radiation enteritis, intractable nausea and vomiting, G\, aHD, bowel obstruction or ileus, or severe pancreatitis). The development
of HfV antibodies is called seroconaersion and may occur from 1 week to several months or more after the initial HfV infection. Young women with the "female athlete triad" of disordered eating, amenorrhea, and low BMD are at increased risk for hav- 24 I NutritionandBoneHealth 629 CHAPTER ParathyroidHormone-MediatedPost-Menopausal Bone
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Osteoporosis. Cervical dysplasia, severe, or carcinoma o Constitutional glucose control with a sulfonylurea and/or metformin. The DV for calcium is 1000 mg. In vitro and animal and human studies are conflicting,

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with some showing protective and others reporting harmful effects of both omega-3 (n-3) and omega-6 fatty acids. At this point in following a new diet, many people feel the same way. On busy dayshe cannot take a full lunch break, so he often skips lunch. HSCT procedures can significantly affect nuuition status. Maltose, found in candies, doughnuts,
potato chips' 640 PART4: Nutrition for Heatthand Fitness crackers, and other snack foods, also contribute to the cariogenic potential of a food. Windhauser Mill et alzDietary adherencein the dieary approachesto stop hypertension vial, J Arn Dia Assoc99(supp): s76. Chronic use of aspirin or other NSAIDs, steroids, alcohol, erosive substances, tobacco,
or any combination of these factors may also compromise mucosal integrity and increase the chance for acquiring acute or chronic gastritis. Hecker KD: Effecs of dieury animal and soy protein on cardiovascular diseaserisk factors, Curr Atbroscl. q Rep3:47l, 2001. In addition to the kilocalories meet total energy requirements, an allowance of
500 to 1000extra kilo- caloriesper day should be planned. Daily energy requirements can be calculated as shown in the Clinical Insight box: Calculated as shown in the Clinical Insight box in the Cli
be necessaryif the risk of aspiration from oral intake is high or if the patient cannot eat enough to meet his or her nutritional needs. Fruits and vegetables were traditionally gathered from the wild but are also cultivated on small farms. nutrition interpretation. Potential Problems WithExercise HIpoglycemia is a potential problem associated with
exercise in persons taking insulin or insulin or insulin secretagogues. Ornega-3fatty acidsare precursorsofprostaglandins that may enhanceimmune function and decreasethe risk of cardiovasculardisease. StoverPJ: Influenceofhuman geneticvariation on nutritional requirements, Am J Clin Nun 83 4365, 2006. 496 PART3, Nutrition Care Process Communication
skills and body languageare also important (see Clinical Insight: Body Language and Communication Skills). Bischoff-FerrariHA et al: Effect of vitamin D on falls; a metaanalysis, JAMA 291:199, 2004. Garner, PhD, 2000. Horn-Ross PL et al: Patterns of alcohol consumption and breast cancer risk in the California Teachers Sntdy cohort, Cancer
Epidemiol BiomarkersPreu 13:405, 2004. sanr aldnlnur selJuelslsuoclueJeJJIPtpr,ll uon?Jlds?o\l r petu roJ elup Bllxe peeudelg . Novedades de esta edición: - Contenido más actualizado. ep?ue) pue salets patrun arp suouepdod eW uI 'alels Jrxol C[ urrue]t,r E seteJ Jo -rpur pr73u 002 us{r relear8 C urrue}r^ fxorpdq-57 rurues ''ye 15967 rrerrag-
Jor{Jsrg ta V'(5002 !oqo11) (req8rq ro [1 "a'l) a8ue.rpurrou aqt urrprnd. Large observational studies and several pla- Origin 779 of Nondiabetic CHAPTER 30 i MedicalNutritionTherapy MellitusandHypoglycemia for Diabetes cebo-controlled clinical trials with small subject numbers have found beneficial effects of antioxidants, especially vitamin E, or
 physiologic and biochemical end points. SeeAdolescens TEF. If sucroseis included in the food and meal plan, it should be substituted for other glucose-lowering medications. 8 saltine crackers I oz cheese I c ice cream 3. to enteralnutrition support, DiSarioJA:
Endoscopicapproaches 20:605,2006. SeeAdversefood reaction immediate,742t hypertension adverseprognosis,868b cardiovascular diseaseand, 850 definition, 865 risk factors,866 183 gestational, definition, 160 261-262 in adolescence, incidence,867-868 in diabetes, 800
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reference intakes, 202t energy requirements, 205 food allergy, 7 59-760 practices, 2 18b usage, 2 13 Healthy Children 2010 objectives for nourishment of, 207b interventions for Prader-Willi syrrdrome in, 11 8 2 iron requirements, 205 infancy (Continued) lipid requirements, 203-204 milk for, 206-213
mineral requirements, 204-205 mortalityrate, 1118 nutrient requirements, 200, 202-206, 219220b overnutrition, 2 19b phenylketonuria, medical nutrition therapy, 11 4 8 - 11 5 6 phototherapy (usage), riboflavin deficiency and,85 physiologic development in, 200, I I 18-1120 protein requirements, 203 satiety behaviors, 2 14t vitamin B12requirements
205 vitamin D requirements, 205 vitamin K requirements, 205 vitamin/mineral supplements, 205 vitamin/mineral supplements, 205 vitamin K requirements, 205 vitamin K requir
tryp operons in bacteria. KielbassaAM et al: Radiation-relateddamageto dentition, Lancet Oncol7:326,2006. health. To achieve these goals, several communication skills are important to master: asking open-ended questions, listening reflectively, affirming, summarizing, and eliciting self-motivational statements. Consistency is key to realizing the
health and weightmanagement benefits of exercise. If she has the genevariantMTHFR 677C>T whar are the implications for Maria? After discussion decided to place Annie on a bisphosphonatedrug in addition to calcium and vitamin D' After I year on the new therapy plus continuing the
calcium and viamin D, her BMD values(her third set of DEXA measurements) actually increased a few percentage points, even though they remained within the classification of osteoporosis. Oligosaccharides are low-molecular-weightpolyrners containing to 20 sugarmolecules. Because they are small, they are readily water soluble and often
sweet(Roberfroid et al., 2005).Larger moleculesare not digestible and are classified asdietary fiber. It only takes one change in a single nucleotide to cause a devastating disease. For example, in those with sickle cell disease a single nucleotide to cause a devastating disease. For example, in those with sickle cell disease a single nucleotide to cause a devastating disease. For example, in those with sickle cell disease a single nucleotide to cause a devastating disease. For example, in those with sickle cell disease a single nucleotide to cause a devastating disease.
considerable pain, which is believed to result from a combination of the defective hemoglobin molecules being unable to carry adequate oxygen to the cells and the sickled, pointed shape of the defective hemoglobin as it moves through the blood vessels(seeChapter 31). Example: 30 g of protein X l0: 300 mOsm/L 3. Muellef PhD,RD,FADA,l-0N
fusociateProfessor Department of Bioscienceand Biotechnology Drexel University Philadelphia, Pennsylvania . The s1'nthetic form is only half as active as the natural form. Continued 634 PART4 i Nutrition for Healthand Fitness Nutrition Diagnosis: Inadequate calciumand vitamin D intake related to avoidance of dairy products as evidenced by diet
history revealing lessthan 20"/oof estimated requirements. Notn: This may be resolved once she stars taking supplements. Healthy People: The SargeonGeneral's Report on healthy People: The SargeonGeneral's Report of the SargeonGeneral's 
giving up. JeffcoatM: The association betweenosreoporosis and oral bone loss, J Periodontot 76(l I suppl):2125,2005. It is advisable that clinicians have accessto at least one on-line resource that is updated at regular intervals. Dirhs AJ, LeeuwenburghC: Caloric restriction in humans: potendalpitfalls and health concerns, MechAging Dn 127:1, 2006.
MathersJC: Nutrition and epigenetics:how the genomelearns Natr Bull 30:6-12,2005' from experience, Br Nut Foundation McCully KS: Vascularpathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis, implicationsfor the pathogenesis Pathology for homorysteinemia: Am J of arteriosclerosis pathology f
the oral caviry have a significant impact on the integrity of the oral cavity and on an individual's eating ability, which may consequently affect nutrition status (seeChapter 37). Lowering blood pressurein patients with diabetes and hypertension is associated with a decrease in C\rD events and renal failure (Sowers, 2003). Specific and distinctly
different interventions are needed for people who are in phasesof motivation that signal readiness, ambivalence, and a desire to remain in their current state. tMonsen ER: The Journal adoptsSI unis for clinicallaboratoryvalues, Am Diet Asrc 37:356,1987. Prochaska model of J, DiClemente C: Toward a comprehensive change. In Miller WR, Heather N,
 editors:Tieatingaildictiae processes bebaaiors: of cbange, New York, 1986,Plenum. Like other sugars (glucose, fi:uctose, maltose, and lactose), sucrose stimulates bacterial activity. surgeongener al.gov/ libr ary/oral health/Organization on 0ral Health http://ww-w.who.int/oral heakh/en/ References N-Zahrani
MS: Increased intake of dairy products related to lower periodontol 77:289, 2006. Nasoduodenal or Nasojejunal Route For short-term enteral nutrition support of up to 3 to 4 weeks in patients with gastric motility disorders, esophageal reflux, or persistent nauseaand vomiting, nasoenteric tubes placed postpylorically (into
the small bowel) are appropriate. Avoid argumentsor defensiveness 5. What they might do is help people relax and deal with psychological stress without eating to soothe themselves when they are not physiologically hungry. The target blood pressure goal for antihypertensive therapy in individuals with diabetes is 130/80 mm Hg. In 2000 only 25"/"
individuals with diabetes receiving antihypertension therapy met this blood pressure goal (F{ajjar and Kotchen, 2003). Therefore convol of edemain this group of diseases should not be complete, should related to some extention elastic full-length supporr hose, and should entail only modest sodium restriction approximately 3 g of sodium daily (see Chapter
34). Additional adverse reactions that are common include cold intolerance, fatig-ue, light-headedness, nervousness, euphoria, constipation or diarrhea, dry skin, thinning reddened hair, anemia, and menstrual irregularities. Calculationof EnergyValueof Ncoholic Beverages and Mixes he energyvalue of alcoholic beverages, which is expressed in
kilocalories, can be determined by the followrng equation (Gastineau, 1976): Kilocalories : Amount fo beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof : The proportion of alcohol to water or other liquids in an alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof in alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof in alcoholic beverage (oz) x Proof x O.SkcaVproof/l oz where Proof x O.
the percentage of ethyl alcohol in a beverage, divide the proof value by 2. Most food labels do not list the selenium content of a food. Listening is not simply hearing the words spoken by the patient and paraphrasing them back. Among those individuals who are underweight, careful and intervention are needed to comect assessment habits leading to the percentage of ethyl alcohol in a beverage, divide the proof value by 2. Most food labels do not list the selenium content of a food. Listening is not simply hearing them back.
unintentional weight loss. Individuals typically have little or no oral intake during the first few weeks following transplant; therefore enteral or parenteral nutrition support is usually considered and has become a standardized component of care. The local effects of diet, particularly fermentable carbohydrates and eating frequency, affect the
production of organic acids by oral bacteria and the rate of decay; the mechanism is Pulp Cavity with nervesand vessels Periodontal ligament Alveolar bone loss in osteoporotic women; however, it is most effective if given early after the menopause. A rare side effect is
severe lactic acidosis, which can be fatal. tHigh in cholesterol. Sequencing genomes for microbial conditions offers an expeditious means of searching involves asking questions to help clients look within to answer the questions they didn't think
of. Raw starch (i.e., raw potato and grains) is poorly digested. Similarly, 750/oof people with diabetes have more than two risk factors for CHD (McCollum et al., 2006). Rice and tortillas are mainstays of the diet, as are fruits and vegetables. Milk and cheeseare consumed when available. Fried foods are often eaten and may need to be limited for
medical reasons. Chili peppers are commonly used and are a rich source of vitamin C. Reduced bone mineral density measured by DEXA has been demonstrated in patients with COPD, thus providing evidence for the importance of accurate attention to the medical, surgical, nutritional, and exercise concerns related to osteoporosis in this population.
(Biskobing, 2002; Incalzi et al., 2005). In addition, an important enz).me in osteoblasts, alkaline phosphatase, requires zinc for its activity. Other risk factors include loss of energy and susceptibility to injury and infection, as well as a distorted body image and other psychological problems (see Chapter 22). The prevalence
increases with age, and it is seen more often in blacks than in non-Hispanic whites. Risk factors for osteoporosis include age, race, gender, and factors noted in Box24-4. the facility also need to ensure proper insurance coverage for 7. Although these two drugs have some similarities in action, they are recommended for use in different populations
There are no double bonds between carbons. A significant component of primary prevention is the determination of serum vitamin B12status. Consequences of a compromised food and water supply would be physical, psychological, political, and economic. Other Minimally
Invasive Techniques High-resolution video cameras have made percutaneous radiologic and laparoscopic gastrostomy and jejunostomy enteral accessan option for patients in whom endoscopic procedures are contraindicated. Physical activity is typically recorded in minutes or calories expended. For a summary of accessites, see Figure 20-2. ra
ue8.ro1g 5 ' 7 6 6 1 ' 6 : 9 1s a y aral sll.uquY'sDut{uE proteuner{r sruened qlr-tr ur sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled e{stur luerJtnN :1e ra 5 ueErolg .t661 'btg sa[ aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sle^el urruct -F pue 'xapur sseurdpoq ,su:aled aral s1t!"tt1uv 'atexeJtorlletu qt.r.4\ peteer sluaned snrJrpre proleurneqJ Jo sluaned snrJrpre proleurneqJ Jo sluaned snrJrpre proleurneqJ Jo sluaned snrJrpre proleurneq
aseuedefgo .{pnls e.,r.ncedsord f natr-g e:snsoleurar11,{:e sndnl cnuats,{s pue terq: lE te rrueurw ,1 '9007'069tG)s unaqy sturqlw ,sttuqueoetsoeeurl uorsse-r8ord pue Jo arueprJuraqt uo Sururel qr8uals 30 stre3Jg:lBre gV EseTIW . All fruits (fresh, dried, and canned) and fruit juices may be cariogenic. Produce hormones . In a cross-sectional study
higher intakes offruits and vegetables were associated with lower CRP levels (Gao et al., 2004). Moreover, medical nutrition therapy must be coordinated with other treatments, including oral or aerosol or intravenous antibiotics, other inhaled medications, and chest physical therapy. The introduction of enteric-coxed enzyme microspheres in the early
1980swas a major advance in nutritional management. q) E ft >.-6; S:s z *gE z e t i2 o; xyr6d oHk.;,f'6tr iz = 5 Er F E i 5 8 ?:p < jPS- bod 5o d6:>. This population is often skewed toward younger persons, has few minorities, and is overrepresented by women. The array of response elements within the promoter region can be quite complex, allowing
for the binding of multiple transcription factors that in turn fine-tune the control of gene expression. It is through the binding of transcription factors to response elements that environmental factors such as the bioactive components in food convey to a gene that more or less of its protein product is needed. infl ammation, pathophysiology, 1044-1045
laboratorytests, 1045 osteoarthritisas, 1047-1050. Seealso Osteoarthritis as, 1047-1050. Seealso Osteoarthritis as, 1047-1050. First- and second-generation sulfonylurea drugs differ from one another in their potency, pharmacokinetics, and metabolism. Cycliccentral parenteral nutrition can be infused for 8- to 12 hour forms and second-generation sulfonylurea drugs differ from one another in their potency, pharmacokinetics, and metabolism. Cycliccentral parenteral nutrition can be infused for 8- to 12 hour forms and second-generation sulfonylurea drugs differ from one another in their potency, pharmacokinetics, and metabolism.
periods, usually at night, to permit a freeperiod of 12 to 16 hours eachday and an improvement in the quality of life. Sheiham et al: The relationship among dental status in older people, J Dent Res 80:408, 2001. Dr Dean Ornish's Program for Reaersing Heart Disease and The Pritikin Program fall into this category
 Insulin B. The processesof digestion and absorption are not completely efficient, and the nitrogenous portion of amino acids is not oxidized but is excreted in the form ofurea. In Merritt R, editor: The ASPEN Nutrition supportpractieemanual, ed 2, Silver Spring, Md, 2005, American Society for Parenteral and Enteral Nutrition. talp ueSezt
sndnlonua]s.{s b1OZ'l t ttg sxCIMnaq[ uuV'snsofvutaqrLre seSurpe-renbsutu &r,rulsuesuetnlC :le ta W no4tsst,u[pt11 '9661' LStLt .{q l8olorq auDloilr snas7uruqautg7'spne lle; parernresun l:olrururegur-ord;o uonelnpory :54 erddel gg a1qup3 ' 1002.'6I S:Sl lunaq[suuquz'uor]rury uec esIJJaxE:le ta gS sue^\oC pcrsdqdpu? On the other hand, the
mortality rate associated with ischemic acute $bular necrosiscausedby shock is approximately CHAPTER 35 I MedicalNutritionTherapyfor RenalDisorders 925 Acute RenalFailure . Surgical interventions include partial or subtotal gastrectomy or total gastrectomy or total gastrectomy fusual dosage. Some patients may respond to half this dosage. Used systemically and
locally, it is a safe, effective public health measure to reduce the incidence and prevalence of dental carries (Palmer and Wolfe, 2005). PrelackK, SheridanRL: Micronutrient supplementation the critically ill patient:strategies for clinical pracrice, Trauma 51:601.2001. "What concerns you about your current eating habits?" o "What are some of the
good things about making a new or additional change?" by trying to look into the future, the counselor can help a client see new and often positive scenarios. Patients with inflammatory borvel diseasesor gastric bypass develop hyperoxaluria because of fat
malabsorption. FIGURE 20-4 Enteral nutrition order form. 5 I 1.5 11 . Check to be sure that all gluten-conaining foods and ingredients are eliminated from the diet. Fat intake should provide 35o/oto 40o/oor more of total kilocaloriesas tolerated. The amount of acid produced by bacteria when carbohydrates are present in the mouth is not proportional
to the sugar content of the food; likewise the amount of tooth demineralization does not necessarily parallel the amount of acid produced from the food. After surgery the patient's diet progresses from clear liquid, to full liquid, to ful
acupuncture are popular with some, there is no definitive support for these practices. Does that describe where you are now?" Affirming Counselors often understand the idea of supporting a client's efforts at following a new eating style but do not put those thoughts into words. Strict infection control protocols should be used for catheter placement
and maintenance (Krzywda et al., 2005). Pull back on sonal benefits include increased perceived value of color and consistency of the aspirate. IBtuec Jo elntnsul leuoDeN '9002 pesseJrE,,ro3.qru.sureru ',,n,r\,,rt ruo{, r7l1rt q uoen maintenance (Krzywda et al., 2005). Pull back on sonal benefits include increased perceived value of color and consistency of the aspirate.
q,ootuapotalt :saseesr6l Jno?uo g 9900Z, UDISpuE lBteleTsolnrsnw pue sRrrqlrvJo elntnsul IEuortEN '9002 passeJrB,noS.qru.sureru '.,n&-,r. The energ'y level varies with the individual's size and activities, usually ranging from 1200 to 1800 kcal daily. Noncarbohydrate sweeteners such as saccharin, cyclamate, aspartame, and sucralose are
cariostatic. These provisions will make digestion easier and minimize the possibility of an osmotic-type diarrhea. Dietary restriction of galactose prevents its accumulation and the accompanying failure to thrive, developmental delay, and hepatic insufficienty. eq ol sreedde a {Etul tunlc '(0002 ''p re e {sor11)frr,rnce pcrsdqd Surreaq-rq8ren JEI pue
se>lelurrunrcleJ lrerary qloq ot palelar osle sr Wfld Jo uonelnrmJJs Jo luel -xe aql ot elnquluoJ osl? Figure 20-5 shows alternative venous accesssites for CPN; femoral placement is also possible. The etiology of this hyperlipidemia is multifactorial. fu body weight declines, blood insulin and plasmaleptin levels decrease. Motivational Interviewing
Motivational interviewinS(MI) can be used to help clients recognize and begin to resolve their concerns and problems. If the nocturnal method is chosen, capsulescan be taken by mouth when the feeding is started and again 916 PART5 i MedicatNutritionTherapy once or twice during the night. Surgical treatment of esophageal tumors may require
partial or total removal of the esophagus. American Dietetic Association: Is blue dye safe as a method of detection for pulmonary aspiration? Such changes in the DNA are technically called mutations, which historically have been associated with the concept of severely impairing the function of that protein and creating dysfunction within the cells.
Guías para calcular las necesidades en nutrición parenteral y enteral. Conditions listed in categoriesB and C must not have occurred. For example, the beneficial effects of dietary fiber on blood glucoselevels are well established. Certainly fiber in take of
 Americans is only half of the AI recommendations for healthy individuals. The basisof health care is becoming more intertwined with genetics and genetic technology, so what is the best way to educatethose who are already in practice as health care professionals? What changes are needed so that future health care practitioners can be properly
 educated? Tyrosinemiais a similar disorderof amino acidmetabolism causedby a mutation in the gene for the enar'mefuhydrolase. Dietary restriction of tyrosine marylacetoacetate and phenylalanineis essentialto prevent the accumulation of these amino acids. Diet has a local effect on tooth integrity; that is, the type, form, and frequenry of foods and
beverages consumed have a direct effect on the oral pH and microbial activity, which may promote dental decay. Some persons with hyperglycemia that is not adequately controlled by MNT alone can be treated with MNT and glucose-lowering medications. canned in the oral pH and microbial activity, which may promote dental decay. Some persons with hyperglycemia that is not adequately controlled by MNT alone can be treated with MNT and glucose-lowering medications.
oil Tirna, light meat, cannedin oil, 3 oz Shrimp, 3 oz Egg, cooked 13.83 5.78 5.30 5.1 0 4.50 4.25 3.06 2.72 2.+9 2.13pert/zcup, 1.82persardine 2 t.29 0.26perwholeegg, 0.25peryolk 276.6 115.6 106 t02 90 85 6t. 2 54.4 49.8 +2.6, 36.4 40.6, 6.6 40 25.8 st 5 Fortified Sources Tofu. The
diseasetraditionallywasdiagnosedamongeconomicallydisadvantaged populationgroups(e.g.,immigrants, homelesspersons,and children)or thoseliving in closequarters (e.9.,prisoners,refugees,and armedforces). The disease is spreadfrom inhalation of organisms dispersedasdroplets from the sputum of infected persons (the bacteria-laden dropletscan float
in the air for severalhours). Acute respiratory distresssyndromeis a commoncomplication of critical illness. Illtimately in RF from any cause, the patient requires orygen, provided through a nasal cannula or by mechanical ventilator support, for varying lengths of time and at various levels of orygen. Blanc P et al: Severe metabolic acidosis and heart
behavior qhangemay be achieved through changes in thinking (cognition). AcuteRenalFailure Pathophysiology ARF is characterized by a suddenreduction in the ability of the kidney to excrete the daily production of meubolic waste (see Pathophysiology ARF).
 and Care Managnrent Algorithm: Acute Renal Failure). It can occur in association with oliguria or normal urine fow. Calcitriol or 1,25-dihyrory vitamin D3, without calcium, hashad little usein the treatment of steeporosis because of its potential toxicity. See Box 18-3 for issuesto consider when choosing a botanical. 30 cc waterflush beforeand
after each medication. The daily dosageneeded oobtain the desiredeffect. Habitual use of ethanol in excessof energy requirements favors lipid storage, weight gain, and obesity. There are many concepts to remember when working with clients when readiness to change is an issue, and readiness to change may flucruate during rhe course of the
discussion. The nature of this progressive loss of function has been the subject of an enorthous amount of basic and clinical research during the past several decades and the subject of several excellent reviews (Pennell, 2001; Remuzzi and Bertani, 1998). Cytotoxic chemotherapy Totalbodyirradiation Nausea Vomiting Diarrhea Injection of
bonemarrow or peripheral stemcells (autologous, allogeneic, or syngeneic) Pretransplantation Antibiotics Bloodproducts a Graftversus hostdisease Veno-occlusive disease Mucositis Xerostomia Dysgeusia Pretransplantation Blandliquidsandsoftsolids Salivary stimulants and substitutes Sauces and gravies with food
Posttransplantation Nutritionsupport Enteral or TPN Meetinreasedenergy and Sanfordc. Some of them are classified as dietary supplements. Kollipara U et al. High-sodium food choices by sourhern, urban African-Americans with heart failure, J CardFail 12:144,2006. Good sources
of vitamin C include: Bell peppers Cantaloupe Papayas Tomatoes and tomato juice Oranges and orange juice Potatoes It is unlikely that a person would take iron at toxic (too high) levels. Plants make two types of starch: amylose and amylopectin. Thus tobacco causessubclinical atherosclerosis. JohnsonRK et al.
Physicalactiviryrelatedenergyexpenditurein children by doubly labeledwater ascomparedwith the Caltrac accelerometer, Int J ObesRelatedMetabolDisord22:1046,1998. Tisdale MJ: Pathogenesis of cancer cacheia, J Support Oncol 1:159,2003. Seeaho Oral/dental health dentin definition, 636 development,63T denrures, tooth loss and,646
deoxy'ribonuclease, in digestion and absorption, 6t, 10 deoxgibonucleic acid (DNA), 370 basesequence amino acid sequenceofprotein and,369,369f change, protein stmcture and function, 364 in protein sl,nthesis,59, 61f recombinant, 374 definition, 366 replication, prior to cell division, 369,369f source, operating information and absorption and absorpt
for cells, 369, 369f I 5-deoxysperagualin, after liver transplantarion, 727 r Department of Homeland Security (DHS) definition, 309 in disasterplanning, 332-333 depersonalization disorder, nuffition, 11 It depression, in older adults, 294 depressive disorders, nutrition, 11 It dermatitis, atopic definition, 739 food allergies and, 740 dermatitis
herpetiformis celiac diseaseand, 681 definition, 673 D et ermine Your Nutrit i onal H eab h Checklist, 297, 298f detoxification system, defensivediet in, 28lb developmental disability(ies), t17 0-l19+ fiom chromosomal aberrations, l177 -1182 Down syrrdrome as, 1177-I 180 Prader-Willi syndrome as, 1181-1182 community resources for, 1191
controversial nuffition therapy for, 1190 developmental disability(ies) (Continaed) defining, 1171 definition, 1170 etiology, ll7l incidence, 1171 monitoring, 1175 from neurologic disorders, I 182-1190 attention-deficit hlperactivity disorder as, 1187-1188 a u t i s m a s , 11 8 5 - l 1 8 7 cerebral palsy as, 1184-1185 cleft lip and palate
as, 1188-1190 spina bifida as, 1182-l 184 nutrluon assessment, 1172, ll72f, 1174-ll7 5, lt7 6-rt7 7 care principles, 1171-ll7 6 c r a g T r o s r lsI.l) pervasive, 1186t devefopmental feeding tool, I 176-1177f DEXA (dual-enerW x-r^y absorptiometry), in body composition analysis, 405 dexfenfluramine, in obesity management, 551 ct-dextrinase, in digestion
and absorption, 6t dextrins, 45-46 as fat replacers, 58t definition, 40 limit, 45-46 dextrose, 43 definition, 40 DGA (Dietary Guidelines for Americans), definition, 3 37 DFIA. Each nephron functions independently in producing a contribution ro rhe final urine, although all are under similar control and thus coordinated. In Elliott L et al, editors: The clinical
guide to oncolog natrition, ed 2, Chicago, 2006, American Dietetic fusociation. Assessment Assessingthe causeand extent of underweight before starting a treatment program is important. Some practitioners at a treatment program is important. Some practitioners are a second extension of the amount of dextrose, with initial prescriptions containing 100 to 200 g daily and advancing over a 2- or 3-
dayperiod to a final goal. Extreme EnergyRestriction andFasting Extreme energy-restricted dies provide fewer than 800 kcal per day, and starvation or fasting diets provide fewer than 200 kcal per day. Fasting is seldom prescribed as a treatment; however, it is frequently invoked as a part of religious or protesr regimen or in a personal effon to lose
weight. Sur.uosaag 'uorueuurJ teddad'oqre8 pue'suoluo sPooJa./ue$ o ser{JnssluarPeJSulJrlBtuoJBrlll,t\ PeuosBes 'uoDdunsuoJ eAoJdIuIpue atBeddeesearcur, (eureraqdsorrnelueseelde pue pooJ Suqyaurs-poog . About 15Y" to 20o/oof total energy intake should come from protein (Kumpf et al., 2005). Howevet some cancer treatlnent regimens may
have an effect on growth and development that is independent of nutritional deprivation. CummingsSR, Melton LJ: Epidemiologyand outcomes of osteopathic fracrures, Lancet 359:1761, 2002. They require additional energy and protein for wound healing and recovery. Most side effects are temporary and dissipate after a few days following surgery. The
selection of these dose levels 24 t NutritionandBoneHealth 633 GHAPTER is not based on specific trial data using different doses of these two nutrients to test efficagr, but rather the doseshave been chosen because these amounts are considered both sufficient for bone formation and safe. Lipoprotein Lipase Dietary triglycerideis transported to the
liver as a part of chylomicronsand is removedfrom the blood by the enzyme lipoproteinlipase(LPL), which sits on the luminal side of the capillarywall into the adiposecell. "In the next month do you plan to make any changes to reduce the amount of saturated fat in your
diet?" It is important to review client's recording of behavior changes, or self-monitoring tools or assesswhere the client sees his or her adherence level. It does not increaseafter small bowel surgery; but, among patients with colon surgery, low urine volume, low urine pH, and supersaturation with uric acid, the formation of stonesis more common
(Parks et al., 2003). What are the nutritional and dietary risk factors? Loading PreviewSorry, preview is currently unavailable. massin adolescents, Veth R et al. The urgent needto recommendan intake of vitamin D that is effective (editorial), Am J Clin Nat 852649, 2007. Although costly, they are used in conjunction with highly and moderately
emetogenic chemotherapeutic regimens. IBtale {solnrsnw pue srtr]tl]rv]o etntr]sul lEuorteN '2002 pessec]c,,roS.gru.sureru.ll'nm uto4,,asaanp Jqautnaqt puo sul]quo nqqo sJaasuupua suotl.sane:sesEesr(I UDISpu? Common outcomes are reduced respiratory and limb musclesuength and endurance,increasedmusclefatigability, altered pulmonary
accessorymuscle function, and increasedsusceptibilityto infections. Malnourished patients 908 PART 5 I Medical Nutrition Therapy with COPD, including those diagnosed with pulmonary cachexia, have a \ilorse prognosis than those who are well nourished (Broekhuizen et al., 2005). Adversity and unmet needs o Loss of own voice and individualiry
Connecting Thoughts, Feelings and Beliefs. Enteral tube feedinp may involve the use of ready-to-feedformulas or table foods put in a blender. Wedge fractures of vertebrae typically lead to backpain, loss of height, spinal deformity, and kyphosisor "dowager'shump" (Figwe 24-9). Evidence for use of these two amino acids as enhancements to immune
function, gastrointestinal integrity, and wound healing remains controversial (Peng et a1.,2002). Dietitians and other health orofessionals are essential translators food, nutrition, and health information into dietary choices and patterns for groups and individuals. It also provides feedback on progress and places the responsibility
for change and accomplishment on the patient. Although commercially available food items can produce highly palatable additions to a diet. Examples of metabolic therapies include the Gerson therapy, the Gonzalez regimen, and the
Livingston-Wheeler therapy. Hyperglycemia and worsening ketosis can also result in personswith qpe I diabeteswho are deprived of insulin for 12 to 48 hours and are ketotic. Corella D, OrdovasJM: Singlenucleotidepolynorphisms that influencelipid metabolism:inreractionwith dietary facrors, Annu ReaNutr 25:341,2005. Final resuls from clinical trialsence from clinical tria
are anticipated. Biogerontologr, May 6, 2006. gradschools.com,/biomed_health.html Genetics Glossaries www.genome.gov/ wv'w. In persons without diabetes, reducing saturated and trans-fatty acids decreases total and LDL cholesterol but may also reduce HDL cholesterol. Responseacrossa population has physicalactivity(Corellaet
al.,2001; Brousseau et a1.,2002; beenquitevaried, ranging from reduced LDL-C levels and Massoneta1.,2003; Winkelmannet a1.,2003; Ayyobiet al., TGs in some, to decreased HDL-C levels resoond draHDL levels (Miltiadous et al., 2005); effect
of LIPC sene matically to dietary oat bran and other soluble fibers, variants on HDL levels and modification by saturated fat whereasothershavehad more modestresponses. The VLCDs can lead to an increase of urinary ketones that interfere with the renal clearance of uric acid, resulting in increased serum uric acid levels, often manifested as gout
However, small bowel motility returns much sooner, within hours of surgery and trauma, and is the primary site of nutrient absorption. Melena may suggest either acute or chronic GI bleeding. gov/ Nutrition Diagnosis: Impaired ability to prepare food and mealsrelated to inability to seeas evidencedby patient report and history of glaucoma 1.
Tamoxifen Thmoxifen was developed as an antiestrogen to help prevent breast cancer, and it was found by chance to conserve bone. He also underwent a left thoracotomy for chest tube placement because of a perforated lung and placement of a riple lumen right internal jugular (IJ) catheter for central venous access. ASSESSMENT oF Drernny
SUpPLEMENT sE Popular interest in the use of dietary supplements in the use of dietary supplements associated with illness or disease, the
therapeutic action of many botanical products is similar to that of drugs; so the potential for harmful interactions exists. There are different types of products for different types of prod
esophagitis in susceptible persons (Nilsson et al., 2004; P era et al., 2005). Because combination therapy is so common, d*g companies now market combination pills (Table 30-6). To promote better weight loss outcomes, patients should limit their fat intake to less than 30% of calories. It must be understoodthat the patient's nutrition stafts may be
improved as long as enteral nutrition is continued but will reveft if and when supplementation is discontinued. American Medical Association; FDl, U.S. Food and DrugAdministanon; MW-12 supplements. A diet consisting of a variety of food items is required to ensure that the recommended dietary allowance for thiamin is met (see Chapter 3). Alexy U
et al: Long-term protein intake and dietary potential renal acid load are associated with bone modelins and remodeling at the proximal radius in healthy children, Am J Clin Nutr 82:1707,2005. Compromise could occur with food being the primary agent such as a vector to deliver a biologic or chemical weapon or with food being a secondary target
leaving an inadequate food supply to feed a region or the nation. Presented at the Food, Nutrition Conference Expo, St. Louis, October 21,2005. Example: 50 gof dextroseX 5: 250 mOsm/L. IU are used on supplement labels. Verbal messagescommunicate content, whereas nonverbal messagesconvey information about relationships. Do I have that
right?" Recognition Problem o "What things makeyou think that eating out is a problem?" . Hispanic cuisine is based on the concept of foods having "hot" and "cold" properties and on beliefs about the contribution of food to health and wellbeing (ADA and ADA 1998). Bloodphenylalanine >6-10 mgldl (360-600pmol/L) Bloodtyrosine , k G t.d z\ .n d r'1
=>- ii> q'd !o ^'ug qr# 9Y h q.) k Ji \ Z 'r o -f; .n .n 3X 8 h recommended Shorter periods of fasting may be acceptable for clinical practice (r's. National Hearg Lung, and Blood Institutes of Health, National Health, 
Evaluation, and Tieatrnent of High Blood Pressure, MH PublicationNo. 04-5230, August 2004. Periodic use of an artificial salivasolution is also helpful, as is the frequent consumption of fluids to prevent dry mouth. The composition of the saliva also is important. Based on clinical research and experience, the goals of nutrition care in CF are to contro
maldigestion and malabsorption, provide adequate nutrients to promote optimal growth or maintain weight for height and pulmonary function, and prevent nutritional deficiencies (Figure 35-7). The exercise plan will vary, depending on interest, age, general health, and level ofphysical firtess. 3. Oxalate is found in all plant foods. Sucrose and sucrose
containing foods also should be eaten in the context of a healthy diet, and care taken to avoid excessenergy intake (ADA, 2007). 336 PART2 1 Nutritionin the Life Cycle Institute of Medicine (IOM), National Academy of Sciences (f{AS}): Dietary referenceintakes: the essentialgaide to nutrient requirententt, Washington DC, 2006: National Academies
Press, , accessed July l, 2006. Bodyweight is a very important factor that affectsBMC and BMD. Research suggests that high dosages of linoleic acid may suppress immune function. Pharmacologicallythis pulmonary infection is treated with multiple medications, especially antibiotics. Firstline drugs are isoniazid, rifampicin, ethambutol, and
pyrutnamide. Eachhasdrug-food-nutrientinteractions (see Chapter L6). Because isoniazidabsorptionis reduced by food, this antibiotic should be administered I hour before or 2 hours after mealtimes. It depletes pyridoxine (vitamin Bo) and interferes with vitamin Bo) and v
require increasedvitamin, especially Boand D, and mineral inake from food and supplements. Nori organisms live only in the human stomach, and the enzymatic pathways they need for suwival in this harsh milieu are continually switched on. Howeveg the fatty acid content in the diet of an organism determines the proportion of that fatty acid in the
animal product (Farrell, 1998); thus values given in Table 3-6 and other nutrient databases should be used as an estimate of the fatty acid content. sodiumreduction, Hunt SC et al: Angiotensinogengenot1,?e, weight loss,and prevention of the surgery does not end the need for treatment; in fact, the
procedure is considered to create malnuuition, and lifelong follow-up andregularmonitoring by a multidisciplinary team of health care professionalsis of bodyneeded. Monitoring shouldinclude an assessment fat loss, potential anemia, and deficiencies of potassium, magnesium, folate, and vitamin B12, especially in patients with gastric bypass, but intake of
all vitamins and minerals shouldbe monitored (seeChapter 15). Usually multivitais necessary. Therefore it is important to have interventions that target tlese levels of physical activity to improve health-related outcomes and to facilitate long-term weight control flakicic, 2006). Healthy Peopte 2010 includes objectives relating to food and water safety:
reducing diseaserelated to foodborne pathogens and pesticide and allergen exposure, promoting food-handling practices that support food safety, reducing diseaseincidence associated with water, and reducing food-handling practices that support food safety, reducing diseaseincidence associated with water, and reducing food-handling practices that support food safety, reducing diseaseincidence associated with water, and reducing food-handling practices that support food safety, reducing food-handling practices that support food safety, reducing food-handling practices that support food safety, reducing diseaseincidence associated with water, and reducing food-handling practices that support food safety, reducing food-handling practices that support food safety food-handling practices that support food-handling practices that support food-handling practices that support
provide adequatebut not excessive energy (Krishnan, 2003). Some lifestyle modification strategiesare listed in Box 21-1. J Clin Erul.ocrinol RufEngJ et al: Determinantsof bone massand bone sizein a large cohort of physically activeyoung adult men, Nutr Metabol 3:14,2006. Position patient on his or her back or in sitting posidoesn't happen, the patient
can receiveparenteral rather than tion if tolerated, with the head of bed at 30 degreesor more appropriate and physiologically beneficial enteral feedmore (if tolerated). Vegetarian diets are increasing in popularity. SeeIntrauterine fetal demise IUGR (intrauterine growth restriction), definition, 1117 g foodpatterns, 355t Japanese jaundice
definition, 707 in hepatitisd 712 jeiunalresections, 698, elunostomy endoscopic, percutaneous, definition, 506 lewish food pafterns, 357t, 3 58-3 59, 360b Joint Commission, The (TJC), 459b definition, 506 lewish food pafterns, 357t, 3 58-3 59, 360b Joint Commission, The (TJC), 459b definition, 506 lewish food pafterns, 357t, 3 58-3 59, 360b Joint Commission, The (TJC), 459b definition, 506 lewish food pafterns, 357t, 3 58-3 59, 360b Joint Commission, The (TJC), 459b definition, 506 lewish food pafterns, 357t, 3 58-3 59, 360b Joint Commission, The (TJC), 459b definition, 506 lewish food pafterns, 357t, 3 58-3 59, 360b Joint Commission, The (TJC), 459b definition, 506 lewish food pafterns, 357t, 3 58-3 59, 360b Joint Commission, The (TJC), 459b definition, 506 lewish food pafterns, 357t, 3 58-3 59, 360b Joint Commission, The (TJC), 459b definition, 506 lewish food pafterns, 357t, 3 58-3 59, 360b Joint Commission, The (TJC), 459b definition, 450b 
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an increase in bone mass or density, although the evidence for skeletal benefit is limited (Chubak et al. Blackburn GL et al: Nutritional and metabolic assessment fthe hospitalized patient, JPEN J Parenter Enteral Nutr I:ll, 1977. Water contamination with arsenic, lead, pesticides, mercury, chlorine, herbicides and Escherichiacoli has been
repeatedly highlighted by the media. >50% StenoticPlaqueS ABt4 mg Optional Step 3 LDL Target PositiveTest 3 mg/L) after the average of two measurements are taken zt least 2 weeks apaft. Iron is also not normally part of parenteral infusions because it is not compatible with lipids and may enhance certain bacterial growth. Tobacman (2001)
demonstrated that carrageenan damages human cells in culture and destroys human mammary myoepithelial cells at concentrations as low as 0.00014%. Early 1960s: R. Most cells that line the trachea, bronchi, and bronchioles have cilia. High-quality protein in supplements can increase semm IGF-I concentrations and enhance new bone matrix
formation. +The A PAL is the allowancemade to include the delayedeffect of physical activity in causing excess posrexercrse oxygen consumed through the thermic effect of food (TEF). Cholesterol-lowering effects have been reported, but the effect varies with the type and amount of
fiber. Dietaryfat. Surgery may be used as the only mode of cancer treaument, or it may be combined with preoperative adjuvant chemotherapy or radiation therapy. There aren't any categories to clutter your screen, just an unobtrusive search bar. It is important to remember that foods that provide lower percentages of the DV also
conribute to a healt Irful diet. broiled, 3 oz 25+ g Polish sausage, 3oz Cheeseburger, large Pie, pecan, Veof9 inch Chicken pot pie, frozen, baked, I pie Quiche, bacon, 7apie bons, the number of double bonds, and the position of the double bonds in the chain. Nthough rare, herb contamination and misidentification do occur. Each daughter cell
receivesone old and one new DNA strand. Often a liquid supplementtaken with meals or betweenmealsis effectivebecauseit is easyto prepare and consumeand it includesextra vitamins and minerals in addition to the macronutrients. This is important when it is necessary to overcome a lack of interest in food and eatins. 'Working together grown and in the consumeand it includes a liquid supplementation and minerals in addition to the macronutrients. This is important when it is necessary to overcome a lack of interest in food and eatins. 'Working together to grown and in the consumeand it includes a liquid supplementation and interest in food and eatins.'
librariesin developirgcounrries Printed in Canada Lastdigitistheprintnumber: www.elsevier.com I www.bookaid.org I www.sabre.org 9 8 7 6 5 + 3 2 l Theauthorsdedicatethis editionto all of tbewonderfuldietitiansandstudmts who haaeusedthis text a.ndcontinueto considerit as their "nutrition bible." to thefteld'. She is 5 ft, 2 in and weighs 95 lb.
However, it is important in this stage ro realize that traditional goal setting will result in feelings of failure on both the part of the client and the nutritionist. Adipose tissue increaseseither by increasing the number of cells (hyperplasia). Weight gain may be the result of
hypertrophy, hyperplasia, or a combination of the two. Seea/soPernicious anemra definition, 810 nervoussystemproblems in, 1078 828-829 py'ridoxine-responsive, 829 Angelmansyndrome, 373 1308 Index anion gap, 156b definition
144 anomla definition, 1067 in A.lzheimer's disease, 1082 anorexia, dmgs (impact), +44,446b anorexia-cachexia syndrome, pharmaceutical management, 981-982, 982b anorexia, dmgs (impact), +44,446b anorexia-cachexia syndrome, pharmaceutical management, 981-982, 982b anorexia, dmgs (impact), +44,446b anorexia-cachexia syndrome, pharmaceutical management, 981-982, 982b anorexia, dmgs (impact), +44,446b anorexia-cachexia syndrome, pharmaceutical management, 981-982, 982b anorexia, dmgs (impact), +44,446b anorexia-cachexia syndrome, pharmaceutical management, 981-982, 982b anorexia, dmgs (impact), +44,446b anorexia-cachexia syndrome, pharmaceutical management, 981-982, 982b anorexia, dmgs (impact), +44,446b anorexia-cachexia syndrome, pharmaceutical management, 981-982, 982b anorexia anorexia-cachexia syndrome, pharmaceutical management, 981-982, 982b anorexia-cachexia syndrome, 981-982, 
570t medical nuffirion therapy, 577-580 guidelines for,579b nutrition assessment,57 l-57 7 an L hropo merrics, excessive fluoride; or ingestion of fluoridated toothpastes, rinses, or dentifrices during the early years of tooth
development. Third, although the molecular mechanism of action is unknown, the antioxidant nutrients may protect lung tissues from oxidative injury. B, Artificial loop graft. tends in dental caries have demonstrated that children who come from homes in which parents have at least a college education have fewer caries than children from homes in
which parents have less than a college education (USDHHS, 2000). Volume-sensitive patients such as those with cardiopulmonary renal, or he-patic failure are not good candidates for PPN. RodriguezA et al: Effects of moderated oses of viamin A asan adjunct to t} re treatment of pneumoniain underweight and normal-weight children: a
randomized, double-blind, placebocontrolledv)al, Am J ClinNutr 82:1090,2005. It may also be described as nonulcer dyspepsia. 10 g Seaweed, dry (agar), 10 g Lily flower, dried, 3 soy beanmilk film, died, 3 oz Boiled bone soup, % cup Laver, nori, and wakameseaweeds are low
in calcium. This means it has 100 units of insulin per milliliter of fluid (100 units/ml). Rejection secondaryto immunosuppressive therapyaremajor complications. Currendy patients awaiting transplantation far outnumber the donated kidneys available. Registration as an organ donor may be done easily at a local driver's
licensing bureau, and more information can be obtained twww.shareyourlife.org. Garner, phD, 2000. Supplements of these vitamins are typically recommended, with care to separate the dosing of orlistat and the supplement by 2 hours or more. Disorders 665 CHAPTER 26 i MedicalNutritionTherapy for UpperGastrointestinalTract Because
prostaglandins from omega-3 and omega-6 fatty acids are involved in inflammatory, immune, and cytoprotective physiology of the GI mucosa, they have been considered for use in management of H. Hypoxemia is prominent in these patients, hematocritvalues are increased, and cor pulmonale develops early. First, inspired air is laden with particles
and microorganisms. temporomandibular disorders(TMDs) collection medical Arthritis is a generic term that comes from the Greek and dental conditions affecting the temporomandibular word arthro, which means joint, and the suffix -itis, which joint and the musclesof mastication, as well as contiguous means inflammation of. Furthermore, regular
exercise may prevent type 2 diabetes in high-risk individuals. Pintauro S, BuzzellP: Methods of body compositionanalysis tutorials, accessed 6/|5 /06 from http://nutrition.uvrn.edu,/ bodycomp. Meat and dairy at samemeal Leavenedfoods Ritual slaughter of meats Moderation Fasting* Buddhist Hindu A X Jewish A O A O R R A R A X Moslem X R
Christian Roman Catholic Chfistian Eastern Orthodox Ghristian Eastern Orthodox Ghristian SeventhDay Adventlst A X A R R R o A X o XX XX X A X R + + + + + + + Modified from Kitder PG, Sucher KP: Food.and mlture, ed 4, Belmont, Ca, 2004, Thomson and Wadsworth; and Escott-Samp S: Nutrition and diagnosisrelated.ure, Baltimore, Md, 2008, Lippincott
Williams & Wlkins. What are the reasonsyou see for making a change?" . National Center for Health Statistics (NCHS): National Health and Nutrition Examination Survey GIIAIIES) background history 2005a, hrp://www.cdc.govlnchs/about/major/nhanes/ bhistory.htm, accessedDecember l, 2005. Administration The three common methods of tube
feedins administration are bolus feeding, intermitrent drip, and continuous drip. They were more fit, had higher HDl-cholesterol levels, and better endothelial function 6.lly et a1.,2004). KathleenMahan, RD, MS, CDE. Dextrinsresult from high
 amylosestarch by ct-amylase. Limit dextins are FIGURE 3-2 Overview of macronutrient metabolism. The family readsaboutgenetherapyon the Internet and asksyou aboutit. Protein The rate of protein degradation and conversion of protein to glucose in type 1 diabetes depends on the state of insul
ask, "What do you think about this?" As ses me east the fact that the currendy available methods measure albumin more precisely than prealbumin. Patients and
their families benefit from specific suggestions for enhancing appetite, promoting oral intake, and lesseningfatiguewhen cookingor [email protected] 35-6). Some suggestions for enhancing appetite, promoting oral intake, and lesseningfatiguewhen cookingor [email protected] 35-6). Some suggestions for enhancing appetite, promoting oral intake, and lesseningfatiguewhen cookingor [email protected] 35-6).
arxiety, labor to perform, and cost(see Chapter 20). American Dietetic Association (ADA): Position of the American Dietetic Association: Food and water s fety, J Ant Diet Association (ADA): Position of the American Dietetic Association: Food and water s fety, J Ant Diet Association (ADA): Position of the American Dietetic Association (ADA): Position (A
United States? Sibutramine should not be used in combination with certain antidepressant agents such as monoamine oxidase 21 i weight Management551 CHAPTER inhibitors or selectiveserotonin reuptakeinhibitors or other central acting agents such as pseudoephedrineor ephedra. SneedN[ Paul SC: Readinessfor behavioralchangein patients with
hean failure, Am J Crit Care 12444, 2003. Gastrointestinal complications include bul\( \)a foulsmelling stools; cramping and intesrinal obstruction; rectal prolapse; and liver involvement. Percent DVs are based on a 2000-calorie diet 13O3 APPENDIXES Selenium is incorporated into proteins to make selenoproteins, which are important antioddant
enzymes, Meat and certain vegetables are avoided, and soybean consumption is promoted, energy SwinamerDL et al: Predictive quality of life in
patients with heart failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenterduring the week What kindsof lunchescould her parents provide for the child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vanessa is enrolled in a child-carecenter failure, Nutition 20:890,2004. 5, Vaness
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protein-calorie malnutrition, 420 somatic, 64 soy, in medical nutrition therapy, for cardiovascular disease, 858 sfucture, 59-61, 61f gene in, 370 transport, hepatic, in assessmentfor proteincalorie malnutrition, 419 -420 whey definition, 199 in human as. Nutrition professionals are similarly challenged in working
with clients with these nutrition-related disorders in terms of the heterogeneity of responses to the nitude of response rather than create a life-threatening siruation and American Dietetic Association and American Dietetic Association and American Dietetic Association and English (Inc.).
praetices, cartlnts, and holidays, Ethnic and Regional Food Practicu Series, Chicago, 1998b, American Dietetic Association offers advice on stocking supplies for safety, September 12, 200 5, . Garlic and its constiruents have been proposed as neuroprotective for AD, but work with mice models remains inconclusive, and
extrapolation to humans is still needed (Chauhan, 2005). Plant sterol and stanolestersblock the intestinal absorption of dietary and biliary cholesterol. In the general public (Hallikainenet al., 1999) and in persons with type 2 diabetes (Leeet al., 2000), intakeof 2 to 3 g of plantstanols or sterols per day is reported to decrease total and LDL cholesterol
levelsby 9%"to207" (seeChapter32). The following questions provide some ideas for questions that might promote discussion: . Examples of conditions in clinical category B include bur are not limited to the following: . BenderIB. BenderIB. BenderIB. Diabetes mellitus and the dentalpulp. I Endod29:383,2003. The authors concluded that avoiding dairy foods
could lead to inadequate intake of nutrients needed for health (Wiithrich et al., 2005). How would you respond? Autosomal-recessive inborn errors of carbohydrate metabolism include galactosemiaand hereditary fructose intolerance. This hyperglycemia improves as soon as alcohol use is discontinued (F{oward et al., 2004). Interpretation of
Laboratory Data As with all data, nutrition data may be quantitative (e.g., how much, how often, how fast), semiquantitative (e.g., many, most, few, a lot, usually, majority, several), or qualitative (e.g., bow much, how often, how fast), semiquantitative (e.g., color, shape, species). The advantage of quantitative (e.g., many, most, few, a lot, usually, majority, several), or qualitative (e.g., color, shape, species). The advantage of quantitative (e.g., many, most, few, a lot, usually, majority, several), or qualitative (e.g., color, shape, species).
a common complication associated with enteral nutrition. For example, 86-proof whiskey contains 43"/" ethyl alcohol. Overall a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Prevention: Improoing or a common sense approach to weight management is needed. Centersfor Disease Control and Disease Contro
checkswithin the last 6 months because the grandmother does not like traveling to the area where the clinic is located o Inconsistent toothbrushing (grandmother reports brushing the child's teeth three to four times per week. What are your concerns about Edith as a surgical risk? E.=Vi iE tE 5< oc !00 o 99P ai; E. trgi q x a Y Hs gO od E6 E,t H5o u'a
.H E s o c E ID E E (, E {, f! o d F o a U) rl ... I o o O v1 L o .n I APPENDIXES I23I H .n .F x9? gov/sci/techresources/Fluman Genome,/ publicat/prim er200l/ www. The adequateintake(AI) is a nutrient recommendation basedon observedor experimentally determined approximation of nutrient intake by a group (or groups) of healthy people when sufficient
scientific evidence on site or at another facility, and the provider has to be a registered dietitian (RD) (FIRSA, 2002). In practice,
assessmentsare not based on the measurement of a single analyte at one point in time. It also acts like a hormone in the body and has many functions throughout the body unrelated to its co-functions with calcium that are continuing to be discovered. Heilbronn LK et al: Effect of 6-month calorierestriction on biomarkersof
longeviry, metabolicadaptation, and oxidative stressin overweightindiyiduals: a randomized controlled trial, JAMA 295:153e, 2006. parent) and her sisted age 4. Vegetarian Diets Vegetarian Diets
lifetime exposureto estrogens, which could increase the risk of osteoporotic fractures. Polyphenols and other plant antioxidants, abundantin plant foods, may benefit the optimal functioning and health of bone cells. Equally as important as the client's sense of self-effrcary is the understanding by the counselor of his or her own psychological issues and
background (seeClinical Insight: The Counselor Looks Within). in counterregulatory hormones. () Schedule Syringe/Gravity Bag 1. Urinary volume of lessthan 500 mVday is called oliguria; it is impossible for such a small urine volume to eliminate all of the daily waste. Furthermore, arty is a 45-year-old Jewish man who emigrated
from Israel to the United States 3 years ago. Some nutrients can be assessed on measurements that reflect the endogenous availability of nutrient to a measurable biologic function (e.g., biochemical, tissue, or organ). When very large doses of certain spices are fed orally or placed intragastrically without other foods, they
increase acid secretionand causesmall, transient superficialerosions, inflammation of the mucosal lining, and altered GI permeability or motility. be measured the bedsideby indirect calorimetry in most The preferred treatment is parenteraladministration of intensive careunits (see Chapter 2). There is broad agreement that affected persons should
avoid consuming large meals, especially before retiring, to reduce latent increases in acid secretion. The over-the-counter medication phenylpropanolamine (PPA) was used for many years as an appetite suppressant. In 2000 scientists at Yale University released the final report of the Hemorrhagic Stroke Project (HSP) suggesting that PPA increases
the risk for hemorrhagic stroke. 5L2 PART3 I NutritionGareProcess NasoentericRoutes Nasogastrio - - - Irl6se6luodsnsl ....o.. Eating breakfastalmosteveryday 3. JorgensenJet al: Restingmetabolicrate in healthyadults: relation to growth hormone starusand leptin levels, Metabolisrn 47:1134,1998. Pump feeding is sometimesnecessarywhen a patient
requires small amounts of formula delivered dowly. cr1-Antitrypsindeficienry is another inherited disorder, and it can causeboth liver and lung disease.c1-Antitrypsin is a glycoproteinfound in serumand body fluids; it inhibits neutrophilproteinases. professionals . Mogrihan P: The interrelationshipberweendiet and oral health, ProcNutr
Soc64:571,2005. The underlying pathophysiology of primary pulmonary asthma is unclear (Church and Warner, 2006; Reed, 2006). These nuclear receptors serve as transcription factors, and their ligands are either provided by the diet or made endogenously, such as cholesterol, steroid hormones, bile acids, xenobiotics (foreign chemicals such as
mercury or lead), and the active form of vitamin D (Chawla et al., 2001; Jacobsand Lewis. (R.eprinted with permission from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causesof hypertension are a hyperactive s). The part of the active form of vitamin D (Chawla et al., 2001; Jacobsand Lewis. (R.eprinted with permission from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causesof hypertension are a hyperactive s). The part of the permission from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causesof hypertension are a hyperactive s). The part of the permission from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causesof hyperactive s). The part of the permission from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causesof hyperactive s). The part of the permission from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causesof hyperactive s). The part of the permission from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causesof hyperactive s). The part of the permission from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causesof hyperactive s). The part of the permission from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causes from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causes from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causes from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causes from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causes from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causes from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causes from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causes from Fox SI: Human physiology, ed 6, New York, 1999, McGraw-Hill.) Plausible causes fr
drug cyclosporine (Figure 33-3). (% c) TOTAL KILOCALORIES Modified from Michel St[ Mueller DH: Practical approaches to nutrition care of patients with cystic frbross, TopClin Nat -Foni6ed milk = I c whole milt plus 4 Tbsp powdered nonfat millc materials are available online from the Cystic Fibrosis Foundation. For infants with CF and their
families. the immunologic and psychosocialbenefits for breast-feeding on daily life. SeeMultiple organ dysfuncrion definition, ll4l qtrdrome MTHFR 677C:f genevariant, 376,380b Moeller-Barlowdisease, 96-97 MTX
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nausea and vomiting chemotherapy-induced, management of, 98 I in pregnanry (N\"), 181-182 definition, 160 NCP. They were developed to help consumers detemine if a food contains a lot or a litde of a specific nutrient. Sometimes what starts as extreme energy restriction to lose weight leads to an eating disorder, often anorexia nervosa
(seeChapter 22). water contaminants such as mycobacteria, Legionella, Giardia, viruses, arsenic, lead, copper, methyl butyl etheg uranium and radon, are the targets of federal systemsput in place to monitor the safety of the food and water supply. Because of all the intricate manifestations and complications of C$ nutritional requirements and care
must be individually determined for each patient. Individuals who resume oral intake often have prolonged dysphagia and require modifications of food consistency and extensive training in chewing and swallowing. NeilyJB et al: Potentialcontributing factors noncompliance with dietary sodium restriction in patients with heart failure, Am Heart J
143:29,2002. One in 30 women will die from breast cancer compared to I in 2.6 from CVD (Thom et al., 2006). and Their Metabolism 49 3 i The Nutrients CHAPTER Algal polysaccharides are used commercially because they form weak gels with proteins and stabilize food mixtures, preventing suspendeding redients from settling. Alterations in the reg-
ulatory region may increase or decrease the quantity of protein produced or alter the ability of the gene to respond to environmental signals. 101-302,305b older athletes, fluid absorptionin, 602 45 oligosaccharides, definition, 41 oliglrir, 922 definition, 921 olive oil, for rheumatoidarthritis, 1055b omega-3fattJ acids,52 brainfunctionand,1105-1108
dpfi.rFnA/\h definition,4l family of, 55t in calciumstoneformation, 954 diseasemanagement,860t in cardiovascular in pregnanryand lactation,188b in rheumatoidarthritis, 1054b nutritional factson, 1278-1279 ratio ofomega-6fatty acids,52 deficienry,55b family
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thought we might talk about how you're doing with your dietary changes. How does this sound to you?" Assessment of CurrentEatingBehavior Determining present eating habits provides ideas on Wheels program may also be helpfirl
(seeChapter l l). onJ rflr, {4, PaJ€3lJsI rBql &I EJIeJo uI uotrualeJ el?Japo} { r onc rflr^. Examples include Albright hereditary osteodystrophy, which commonly results in dental problems and obesity; and Marfan s1-ndrome, which promotes
cardiac disease susceptibility and excessivegrowth and its concomitant nuuitional needs. Larsson SG et al: Whole grain consumption and risk of colorectal cancer: a population-basedcohort of60,000 women, Br J Cancer92:1803, 2005. Side effects are gastrointestinal in nature: oily spotting, fecal urgency, and flatus with discharge. Health benefits
include reduced LDL cholesterol and elevated HDL cholesterol, improved glycemic control, and reduced blood pressure. L252 APPENDIXES STARCH LIST Cereals, grains, pasta, breads, crackers, snacks, starchy vegetables, and cooked beans, peas, and lentils are starches. KathleenMahan, MS, RD, CDE SylviaEscott-Stump, MA, RD, LDN KEY TERMS
 adipocytea cell that synthesizesand storestriglycerides; fat cell adipocytokinesproteins releasedby the adiposecell into the bloodstreamthat act as signalingmoleculesand influencemetabolism androidfat depositiondeposition fat around the waist and upper abdomen; "apple-shape" fat distribution bariatric surgery gastroplasty, gasuic blpass, and
biliopancreaticdiversion, operationsfor the purpose of stomachsize reduction or malabsorption for the purpose of weight in meterssquared (BMI) a mathematical formula that correlates with body fat and is expressed asweight in kilograms divided by height in meters as quared (BMI) a mathematical formula that correlates with body fat and is expressed asweight in kilograms divided by height in meters as quared (BMI) a mathematical formula that correlates with body fat and is expressed asweight in kilograms divided by height in meters as quared (BMI) a mathematical formula that correlates with body fat and is expressed asweight in kilograms divided by height in meters as quared (BMI) a mathematical formula that correlates with body fat and is expressed as weight in kilograms divided by height in meters as quared (BMI) a mathematical formula that correlates with body fat and is expressed as weight in kilograms divided by height in kilograms divided by he
that is involved in heat production for cold adaptationand possiblyburning offexcessenergy catecholaminergic referring to the brain neurotransmitters norepinephrine, and dopamine comorbidities conditions associated with obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases and often improves as the degree of obesity increases.
 essentialfat fat in the internal organs, bone marrow, and nervetissuesthat is necess ary for surrival; about 3% to 120/0 of body weight extreme or morbid obesatya state of adiposityin which body sources, including fat in the brain, skeleton, and
adiposetissue Sections of this chapter were v'rinen by Idamarie Laquatra, PhD, RD, for the previous edition ofthis text. Berkowitz RJ: Causes, treatnent and prevention of early childhood caries: a microbiologic perspective, J CanDentAssoc 69:304.2003. his or her . Although 5V" to 15o/" of persons with GERD will have BE, the incidence of esophageal
 adenocarcinoma is still less than 1% per year (Pera et al., 2005). Delayed emptying and increased sensation firllnessare common features of the problem. Acidosis usually occurs in patients who use alcohol excessively, have renal dysfunction, or have liver impairments (Inzucchi, 2002). orglad a/ files/ aian fl u.pdf http://www.meatami.com http
://www.cfsan.fda.gov http://www.cfsan.fda.gov http://www.cfsan.fda.gov-dms/fsdisas.htrnl http://www.bt.cdc.govldisasters/ http://www
euoN pepeeu sapqrq€ e,rBru5oc Pu? C, Subclavian catheter (usually temporary). SeeGastrointestinal tract Glasgow Coma Scale (GCS), 1033 definition, 286 glomerular diseases,923-924 glomemlar filtration rate (GFR), definition, 921 glomemlonephritides, acute, 92 3 definition, 92 I GLP-I. At the age of 6 years in lean
children, increase in fatness occurs (adiposity rebound), with the increase being greater in girls than in boys. In 1981 Jenkins defined a glycemic index to rank different dietary carbohydrates on their ability to raise blood glucose levels as compared with a reference food (Jenkins, 1981). The most abundant fiber is cellulose' a homopolysaccharidemade
up of glucosemoleculeslinked by B-14 linkages that cannot be hydrolyzed by amylase enzymes. Controversy persists concerning the optimal ratio of protein, fat, and carbohydrate supplied to patients with RF. j t KristineDuncan.MS. The galacturonic acid backbone has rhamnose units inserted at intervals and side chains of arabinose and galactose.
Thke this supplement with food to aid in absorption. Little JW: Eating disorders:dentalimplications, Oral PatholOral RadiolFnd.od.on 93:I38,2002. Excessiveaneer Common Clinical Manifestations . She wants to be enrolled into prenatal care becauseshe has many concernsregarding the health ofher baby and herself. A growing body
of evidence suggests that nonabsorbable oligosaccharides and fibers have a significant impact on human physiology. These oils are interstitial space. Decreased from proteins and phospholipids, conthereby increasing the frequency of swallowing to suppress
tribute to the collapse of alveoli and thus increase the the cough reflex. Teasbrewedfrom herbsare consumedfor work of breathing. The supporting connective for Pulmonary Disease on Nutrition Status
Increased Energy Expenditure Increased work of breathing Chronic infection Medical treatments (e.g., bronchodulators, chest phpical therapy) Selected Pulmonary Gonditions Having Nutritional Implications Gategory Examples Neonatal Bronchopulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary and the samples Neonatal Bronchopulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic lung disease of prematunty Cystic fibrosis Chronic obstructive pulmonary dysplasia Chronic obstruc
disease. In s lui n Persons with type 1 diabetes depend on insulin to survive. Carbohydrates are manufactured by plants and are a major source of energy in the diet comprising around half the total calories. Carbohydrates are manufactured by plants and are a major source of energy in the diet comprising around half the total calories. Carbohydrates are manufactured by plants and are a major source of energy in the diet comprising around half the total calories.
issues surrounding medical, surgical, psychosocial, and nutrition assessments delivered by different nutrition assessments and therapies; but they also have regular adult life issues. Thus they require different nutrition information delivered by different nutrition assessments and therapies; but they also have regular adult life issues. Thus they require different nutrition information delivered by different nutrition assessments and therapies; but they also have regular adult life issues. Thus they require different nutrition information delivered by different nutrition assessments and nutrition assessments and nutrition assessments and nutrition information delivered by different nutrition assessments and nutrition assessments are not not necessarily assessments. The nutrition assessments are not necessarily assessments and nutrition assessments are not necessarily assessments. The nutrition assessments are not necessarily assessments and nutrition assessments are not necessarily assessments. The nutrition assessments are not necessarily assessments are not necessarily assessments. The nutrition assessments are not necessarily assessments are not necessarily assessments. The nutrition assessments are not necessarily assessments are not necessarily assessments. The nutrition are not necessarily 
carbohydrates as starch granules formed by linking glucose in a-1,4 straight chains and branching the straight chains with a-1,6 linkages into a complex granular stmcture. National Cancer Institute (ICI): f I dayfor better heahhprogram: Diaision of Cancer Control and Population Seruices, from http:// dccps.nci.nih. SeeAdverse food reaction definition,
739 latex, 761 prevention of, diet and, 760-761 cr-ketoglutarate, ergogenic aid, 603t cr-linolenic acid (ALA), definirion, 1102 food sources, ll06t in brain and nervous system function, 1104 o-lipoic acid (ALA), ergogenic aid, 603t o-tocopherol as oxidative stress marker, 427t AIS. For people continuing to smoke tobacco, additional vitamin C may be
necessary. Research indicates that people who smoke about one pack of cigarettes per day appear to require approximately 16 mg more over the recommended dietary allowance. Oral manifestations of immunosuppressive diseases such as human immunodeficiency virus
(HfV]/ acquired immune deficiency syndrome (AIDS) also have an impact on appetite, dietary intake, and nutrient needs (Touger-Decker and Mobley, 2003) (see Chapter 38). The association between periodontal diseaseand systemic os- teopenia and osteoporosis
in posmrenopausal \Momen (IGall, 2001) (see Chapter 24). Alcohol Goal: Decrease acidityof gastricsecretions Avoid: . In Gottschlich MI et al, editors: Nutrition. Deficiencies in energy and protein can be expected to affect growth adversely.
although the impact may be temporary and catchup growth depends on how much energy children are able to consistently consume (Ringwald-Smith et al., 2006; Corrales and Utter, 2005). Pathophysiology Respiratory failure @F) occurs when the pulmonary system is unable to perform its functions. Poor or inadequate nutritional intake contributes to
fatigue; conversely, fatigue may hinder eating and nutrition support regimens. The frequency and severity of ryrnptoms do not always predict the severity or complications of the diseaseand may not correlate with endoscopic findings. Menstruating, pregnant, or lactating females are not required to fast but must make up the fasting days at some
other time. SvetkeyLP et al: Angiotensinogengenotypeand blood pressure responsein the Dietary Approachesto Stop Hypertension (DASFD sndy, J Hypmms 19:1949, 2001. EichholzerM et al: Prediction of male cancermortality by plasmalevelsof interacting vitamins: 77-yearfollow-up of the 66:145, 1996. The conclusion that sedentary hobbies have a
profound inclination toward obesity in children is significant for nutrition counselors and physicians who work with this population. Women are still nor diagnosed early and have limited accessto quality health care and rreatments. of Falls Prevention Fractures of the humerus, wtist, pelvis, and hip are considered to be agerelated, resulting from a
combination of osteoporosis and falling, or al infection or ulceration. Therefore recommendations simply to reduce dietary fat are inappropriate; total calories remain critical as the variable for weight management. What lessons can be drawn for future research on pollphenols? This in turn necessitates careful monitoring and the use of more
concentrated nutrient solutions, increasedflow rates, and double- or triple-lumen catheters. The effectiveness different fibers in enteral formulas used to treat gastrointestinal symptoms in acutely ill patients is controversial (Gottschlich, 2006). :seseesrp 7967 '8661 '99t:LZ xunaqdstilrquV auuas',,!aer rrteunaqr aqt ur 3u6sa1&ore-roqe1:C4 (arng,13
.rarze8lo3 relo ue '1007.279is7 proslQqapw :srlr]r{t]e proteurnerl]ur spr]efrre; g-e8aurg:le }a d ezrrv-errv 'hrsaqo '5002' upl saqo sqrrrltrgoa]so ru1 pu? GUTDELTNEs FoR CoUNSELTNc The goal of CAM counseling is to determine which supplements a client is using and the health goals they hope to achieve through the use of these products.
consumerlab.comfor validation of specific product brands on the market. 26 nonheme iron, I 15 a D s o r p u o nr, I) - llo, llo, solitis induced by, nutrient absorption and, 439 for rheumatic disease, 1045 with gastrointestinal side effects,
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menopause; or (2) a suboptimal peak bone mass that results in bone after the menopause(or later in life in males) that becomes fragile and susceptible to fracture. Block G et al: Fruit, vegetables, and cancer prevention: a review of the epidemiologic evidence, Nutr Cancer 18:7, 1992. Algal polysaccharides(e.g., carrageenan) are extracted from
seaweedand algae and used as thickening and stabilizing agents in many processedfoods such aJ infant fo.mulas, ice cream, milk pudding, and sour cream products. Smoking cessationsers drugs affecting, taste alterations from,447b
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food choices." Double-Sided Reflection In double-sidedreflection the counselor will use ideas that the client has expressed previous ones. Updated by peter L. modification, by food and nutrients, 440-44r antihlpertensive, 874 appetite changes, 444-445, 446b, 447b breast
feeding, concern, 190-191t, 191 causing organ system toxicity, 445-446 causing xerostomia, 648b diarrhea, inducing, 677 effects on food and nutrition, 439-440 on nutrition status, 441-448 food interactions, 432-453. A variety of principles are important when
working with individuals who stmgglewith behavior change: l. $Includes nonhydrogenated vegetableoils and oils in fish, nuts, and seeds. If 2+00kcal is normally needed to maintain present weight, 2900 to 3400 kcal would be required to achieve weight gain. The intake should be increased gradually to these levels to avoid gastric discomfort and periods of the seeds. If 2+00kcal is normally needed to maintain present weight, 2900 to 3400 kcal would be required to achieve weight gain. The intake should be increased gradually to these levels to avoid gastric discomfort and periods of the seeds. If 2+00kcal is normally needed to maintain present weight, 2900 to 3400 kcal would be required to achieve weight gain. The intake should be increased gradually to the seeds of 
discouragementand, more seriously electrolyteimbalances and heart dysfunction. A 500-kcalstep-upprogram is outlined in Table 21 -8. Evans JR: Antioxidantviamin and mineral supplements for Database SystRn age-related macular degeneration, Cochrane c D00254, 2002. The group outlined the use of weight mainrenance weight loss, depending on
the patient's age, baseline body massindex (BMI) Increased physical activiry is extremely important in a weight-management program for children. Becauseno singular food item contributes about 10% of an individual's daily need. (MCFAS) to have 8 to 14, and long-chain fatty
acids(LCFAs) to have 16 to 20 or more. An averagegeneis 3,000nucleotides, and the human genome contains approximately 20,000 to 25,000 genes (www.ornl. Other minerals are not routinely supplemented, although mineral status should be evaluated on an individual basis. Counesy of Janice Rayrnond, RD, MS, CNSD, Food and Nuuition Director. Total
calories must also be considered. Although most C\rD deaths occur in persons older than 65 years of age, one third of deaths occur prematurely or before averagelife expectancyis reached. This observation has led to extensive research on prevention. Pennington JA, Douglass JS: Bowes and Church\foodaalues of plrtilns commonly used, ed
18, Philadelphia, Lippincon Williams and Wilkins, 2004. elderly: a 5 -yearfollow-up sardy, Gerodonto SohnW et al: Carbonatedsoft drinks and dental cariesin the primary dentition, J Dent Res85:262, 2006. In this way even the most primitive organisms monitor and respond to their environment to deploy their resources most efficiently. dietary regimen
should be is reduced. Nitrodiarrhea sistsof total bowel rest until the be severeand are gen losses of appetite, early satiery constipation intervention impact symptoms such as pain, weakness, loss of appetite, early satiery constipation
weakness,dry mouth, and dyspnea (McCallum and Fornari,2006). The potential benefits of protein restriction in the patient with moderate renal insufficiencymust be weighed against the potential benefits of nutrition. Since pregnant women seekinghealth care come with their own personal history of nutrition
and dietary issues, it is critical that providers appreciate gricultural issues of the country of origin. Estrogen replacement therapies have been shown to conserve BMD and reduce fracture risk within the first few years following the menopause, at least in short-term studies. In implementing the prescription the patient's mental status, overall health ancested appreciate gricultural issues of the country of origin. Estrogen replacement therapies have been shown to conserve BMD and reduce fracture risk within the first few years following the menopause, at least in short-term studies. In implementing the prescription the patient's mental status, overall health ancested appreciate gricultural issues of the country of origin.
prognosis, the health facility's ability to administer, monitor and evaluate the support and the family's ability to function as caregiversare important. The PA cofficent (PA) that correlates with an actiaelifestyle for this woman is I.27. As tolerated, registered dietitianto advance feeding and adjustwater to meet goal rates 4. Acquire cognitive and
 behavioralskills to manage anxiety. Each supplement should be discussed individually in terms of what the client hopes to achieve by using that supplement, whether the preparation is supported in published clinical trials
Individuals with CF may be at risk for vitamin K deficiency secondary to long-term use of antibiotics or liver disease, as well as malabsorption. The many dietary factors that affect the disease processare discussed in "Medical Nutrition Therapy," p. From Lichtenstein AH et al: Diet and lifestyle recommendations revision 2(X)6: a scientific statement
from the American Hean Association Committee, Circalntiun114:83.2006. Psychological issues. Creative efforts are required to minimize the psychological issues. Creative efforts are required to minimize the psychological issues. Creative efforts are required to minimize the psychological issues. Creative efforts are required to minimize the psychological issues. Creative efforts are required to minimize the psychological issues. Creative efforts are required to minimize the psychological issues.
increasesin size in response to high blood pressureand increasedworkloadsecondary to obesity. In Merritt R, editor: The ASPEN nutrition. MuslimFoodCustoms, DietaryLaws, andHolidays Islam promotes the concept of "eating to live." Muslims
are advised to stop eating while they are still hungry and always to share food. Hepatocellular carcinomausuallydevelopsin cirrhotic livers. G a r i o g e n i co i tfyI n d i v i d u aFlo o d s It is important to differentiate between cariogenic, cariostatic, and anticariogenic foods. In addition, a recent meaanalysis of VLCDs compared to LCDs showed that,
even though there were significantly greater weight losses in the VLCDs in the short term, there were no significant differences in the weight losses in the long term (Gilden and Wadden, 2006). A sampling of other diet-responsivegene variants that Cardiovascu lar Disease have implications for nutrition therapy related to preventNutrition
professionals who work with clients with dysliping and treating cardiovas culardisease include APOE gene idemia know firsthand the high degree of individual vaiivariants and treating cardiovas culardisease include APOE gene idemia know first and ordovas, 2005; terventions. These
 therapiesare used primarily to lower Ncklas et a1.,2002; Massonet al., 2003; Djouss6,2004); elevatedblood levelsof LDL cholesterol(HDL-C), and lower cise training (Thimelaet al, 1996, Hagberget al., 2000); triglycerides (TGt. The standarddietary
approachis a diet CETP variantsand effectson HDL levels, lipid-modif ing low in saturatedfats. VeryLow-Density Lipoprotein (VLDL) particles are slmthesized in the liver to transport endogenous
triglyceride and cholesterol. pylori (Shimizu et al., 2001). The bisphosphonates act by inhibiting osteoclast-mediated bone resorption. asresistance authority or fish. Chewable vitamin C is one example of a sugarcontaining
acid product that may contribute to tooth decay. By the second day warm fluids and soft foods may be introduced; thereafter hot foods can be introduced; thereafter hot foods can be introduced; thereafter hot foods are tolerated. Although the fracture-precipitating condition of low BMD is common to all types of osteoporosis, an imbalance between bone
resorption and formation results from an array of etiologic facrors characteristic of each form of this disease, monary diseases or their treatments on the Pulmonary System
problematic. Some adverse effects of lung disease on nutrition and respiratory tion sgnrsare listed in Box 15-1. Sophisticated computer technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that can handle the vast amount of data generated by genetic technology that the vast amount of data generated by genetic technology that the vast amount of the vast amount 
goals include the challenges of educating genetic scientists and clinicians and integrating the results of genetic research into clinical practice. Lipman TO: Bacterial translocation and enreral nutrition in humans: an outsider looks in, JPEN J Parenter Enteral Nutr 19:156,1995. Most food labels do not list a the vitamin E content of food. These includes
bronchodilators (to relax the airv, ay smooth muscle) and antiinflammatory agents (to suppress ilrway inflammatory agents (to suppress ilrway inflammatory agents (to suppress ilrway inflammatory agents). Familial Hypercholesterolemia FH (type II a hiperlipidemia) is a monogenetic disorder that is seen around the world, with an estimated 10,000,000 people being affected (Thble 32-2). It is major risk factor for CHD; 85% of malesand 50% of
females with FH will have a coronary event before the age of 65 years unless the hlpercholesterolemia successfully reated (Civeira, 2004). Unfortunately few patients (2go 13 200-239 j Points at age 6H9 0 2 4 It untreated 0 140-1 59 > 160
may be necessary to use a gastrostomy or jejunostomy tube for administering the formula. ,' Nutrition Diagnosis: Excessive B-vitamin and vitamin E-intake related to self-report of supplementinake as evidenced by intake exceeding DRI levels. The other 50/00f ingredients must be nonagricultural substances on an approved list that are not available in a approved list that are not availabl
 organic form. FoodComponents and Public Health Concerns FoodGomponent Relevanceto Public Health Energy Median reported energ'yintakes in the 1988 to 1991 CSFII were below recommendedlevels, yet many adolescents and adults are overweight. Thus the LDL cholesterol treatment goal for persons with diabetes is 70 mg/dl (Pearson et al.,
2003). @rom U.S. Department Energ; Human Genome Program: www.oml.goo/hgmis.) rectly or indirectly, all disease connected to the information in the genes. WhatIs the BestWayTo Educate the PatientandCaregiver? pyhri gene causes the making of a protein that alters GI epithelial cells and Tjymphocytes, suggesting that bacterial, host genetic
and environmental factors all play a role @ritchard and Crabtree, 2006). Supplements are most likely necessary because it is almost impossible for the elderly to consume enough from foods. You haven the goals we set. Concentrated formulas or large
preschoolchildren, Am J Clin Nutr 4f:555,1986. Surgically Placed Enterostomies are placed it p"tients requiring enteral support who are undergoing a surgical procedure or in whom endoscopic and radiologic techniques are placed it p"tients requiring enteral support who are undergoing a surgical procedure or in whom endoscopic and radiologic techniques are placed it p"tients requiring enteral support who are undergoing a surgical procedure or in whom endoscopic and radiologic techniques are placed it p"tients requiring enteral support who are undergoing a surgical procedure or in whom endoscopic and radiologic techniques are placed it p"tients requiring enteral support who are undergoing a surgical procedure or in whom endoscopic and radiologic techniques are placed it p"tients requiring enteral support who are undergoing a surgical procedure or in whom endoscopic and radiologic techniques are placed it p"tients requiring enteral support who are undergoing a surgical procedure or in whom endoscopic and radiologic techniques are placed it p"tients requiring enteral support who are undergoing a surgical procedure or in whom endoscopic and radiologic techniques are placed it p"tients requiring enteral support who are undergoing a surgical procedure or in whom endoscopic and radiologic techniques are placed in the procedure of the pr
 Stamm and Witzel techniques. Such changes are also mutations but have come to be called "gene yariants" to distinguish them from single gene changes that typically have a more detrimental effect. Box 3-1 shows the fat content of some common foods. Closed questions can help in targeting concepts and eliminating tangential discussions. For the
person who is not ready to change, targeted discussions around difficult topics can help focus the session. Although only a small percentageof falli result in fractures, preaenting falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention to the living environment falls throtgh education and attention through education and attention throtgh education and attention attention and attention attention a
ensuringfood and watersafety. Planning, surveillance, detection, response, and recoveryarethe key components of public healthpreparedness. With treatment, growth generally improves. The CNS-acting agents, and combination catecholaminergic agents, and combination catecholaminergic agents.
amount of vitamin K in food may affect drug therapy, such as that from warfarin or other anticoagulants. Reword this statements about the patient's statement above. What are some summarizing statements that you might make? ane S. o Slurry sugar cookies with milk. to ObarzanekE et al: Individual blood
preszureresponses changesin salt intake:rezultsfrom the DASH-Sodium trial, Hlp trtension42:459, 2003. Horton! GeisslerC: Effect of habitualexerciseon daily energy expenditureand metabolicrate during standardizedactivity, Arn J Clin Nun 59:13,1994. Piping . € E- d"E bri -o ,E h- F.H os F] q) k./. USeFULwEBsrrEs Bas i cG e n e t i can s dGe n o mi
cs N utrit i o n Dia g n o s i s : Nutrition-related knowledge deficit related to nutrigenetic counselingfor pregnancy 1. Albert DA et al: Dental cariesamongdisadvantaged 3- to 4-yearold children in northern Manhattan, PediatrDent 24:229,2002. Fat sources are often long-chain
triglycerides, although some supplements contain medium-chain triglycerides. man-made and hurricanesin the in placeand the gaps. SeeAssisted reproductive technology definition, 991 arthritis rheumatoid, 1050-1056. Seea/soRheumatoid arthritis juvenile, definition, 1042 Arthus reaction, 743t artificial
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acuterenal failure (ARF); (3) tubular defects; (4) end-stage renal disease (ESRD); and (5) renal stones. Objectives of nutritional caredependon the abnormality being ueated. accessed April flegumes comted asvegetables only after meat and beansstandardis met. Nutrition Diagnosis: Knowledge deficitrelated to calcium as evidenced by request for
nutrientanddietary information What type of dietary guidancewould you offer Marty? For detailsof mitochondrially inherited disorders, searchthe Online Mendelian Inheritancein Man databaseat www.ncbi.nlm.nih.govlomim. In criticallyill patients volumes of prescribed CPN should be closely coordinated with their overall care plan. Black women have
higher rates rhan white females at all ages. This allows the opportunity to agree with her statement and her feeling, but then to redirect the conversation onto a key topic. Lack ofeffect of a low-fat, high-fat diet on the recurrence of
colorectal adenomas, Pollp Prevention Tlial Study Group, N EnglJ Med342:1149,2000. The button tubes require some manual dexterity to accessand can be difficult to use for patients who are very obese. The primary goal of treaunenr is to achieve healthy eating and activity, not to achieve healthy eating and activity.
presence of a blocked trans-srlfi:ranon outflow pathway for methionine metabolism. ing fractures while involved in athletics (Thrash and Anderson, 2000) (see Chapters 22 and 23). Provision of adequateoxygen is crucial for proper digestion and absorption of food. Munter P et al: The impact of NC-M guidelineson rrearment recommendations in the U.S
population, Hypmension 39897, 2002. The gums recede in older age, exposing the root sudace. Bjeclakovic et al: Cochrane Database SystRn 18(4): CD004183, 2004. Oxandrolone, a synthetic anabolic steroid, combined with a resistance exercise program, has been found to increase total body weight and lean tissue weight (I/on Roenn, 2006). Box 2-l
lists the EER prediction equations for people of normal weight. Multiple organ dysfunction syndrome(seeChapter 39) is the term used to denote abnormal interaction among the organ systems. 9L2 PART5 i Medical Nutrition Therapy the microspheres with foods that have a pH greater than 6.0,
such as dairy products (e.g., milk, custard, ice cream) becausethe enteric coating will dissolve and the enzymes exposed to the gastric acidity will be inactivated. health care (see Useful Websites). This project beganin Similarly, the information gained from the Human 1990asa multinational cooperative effort, with the goal of Genome Project has been
pivotal in developing diagnostic identifing each of the nucleotidesin the deoxyribonucleic assays to determine gene variations among people in acid (DNA) that makesup the geneticmaterial fundamental fundamental
 being has the completedin 2003, in time to mark the 50-yearanniver- same basic set of drug-metabolizing enzymes, but the sary of the identification DNA as the geneticmaterial. It is also known by the chemical name of its principal form, L-ascorbic acid or simply ascorbic acid. Most people with diabetes die from C\rD. Write a second PES satement
related to her BMI. Memory . - Dietary FoodandDrugAdministration supplement advice a.gov/ fdac/feanres/2002/2 02 supp.htrnl International FoodInformation Council C A Mo n P u b M e d MedWatch http://nccam.nih. Leading causesof death among people with HIV disease are infection, cancer, cardiac disease, trauma, and liver disease (Crum et al.
2006).Nmost 16,000deathswere reported in 2004. teatrnent recommendationscall for family involvement, gradual changesin activity and eating patrerns, and ongoing family support because of AIDS. the incidence, prelralence, and risk
factorsfor cardiovascular Another large cohort study of older adults (70 to 79 years) (seeFocrer diseases Oz: FraminghamHeart Studyin Chapter showed that waist circumferenceand percentageof body 32). See a/soPhenylketonuria (PKL| metabolism of, disorders of, maple sy'rup urine diseaseas, ll57-1159 nitrogen balance and, 64-65,65f nonessential
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Dietetic Association (ADA): Position of the American Dietetic Associated to promote a healthy lifestyle and thereby contribute to the longeviry of the transplanted kidney.
648 PART4 I Nutritionfor HealthandFitness Medications That May CauseXerostomia Antiarxiety agents Antidepressants Antihistamines Antihippertensives Diuretics Narcotics Sedatives Serotonin uptake inhibitors Ti.anquilizers with and between all meals and snacks, and iudicious food choices. Gender 2- Ag, 3. Seecr-Linolenic acid
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allergy(ies) food. The ageadjusted prevalence of CVD in women with diabetes or in men. How could I help get you there?". Many patients want fast results. The TZDs decreaseinsulin resistancein peripheral tissues and thus enhance the ability of muscle and adipose cells to take up glucose. Tacrine. The
functions of the glomerulus that are important with respect to disease are production of an adequate ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances this ultrafilfrom entering trate and prevention of certain substances that a substance trate are substances to the substance tra
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1120-1133 enteral feeding in,1125-1133. Use of immune-enhancing enteral nutrition formulas that are supplemented in dividuals who are undergoing gastrointestinal surgery. Their use is generally indicated for 5 to 7
days (orally) before surgery and for a minimum of 5 days (orally or enterally) after surgery (Sax,2001). Patients receiving enteral nuuition who desire to eat and for whom it is not contraindicated can be encouraged to do so. Lack of vitamin-mineral and fluoride supplements. Bahr R et al: Effect of supramaximalexerciseon excess 02 consumption, Med
SciSportsExerc24:66, 1992. org http://www.fi ghtbac.org.main.cfrn http://www.fi ghtbac
goals. WercHT MnTAGEMENT IN HILDREN About 17"/" of children and adolescents2 to 17 years of age are overweight or obese. The longer starches are retained in the mouth, the greater their cariogenicity (Lingstrom et al., 2000). Cigarette smoking . HfV-l and HfV-2 are ty?es of HIV and are transmitted the same way. Finally, in the absence of
insulin binding, muscle and adipose tissuescannot take up glucose. The net actions of these counter-regrrlatory hormones maintain the blood glucoseconcentration within the range required for optimal cell function. In acute iir"rr. Milan A et al: Salt intake and hlpenension therapy, J Nepbrol 15(1):1,2N2. Components The DRI model expands the
previous RDA, which focused only on levels of nutrients for healthy populations to prevent deficiency disease, the metabolic decarboxylase, a multimeric enz). mecomplex encoded by six genes. Whimey EN, Rolfes SR: Understanding nutrition, ed 9, Belmont, Calif, 2002, Wadsworth-
 ThomsonLearning. Of interest to many is the issue of the potential hazards of ingestion of seafood that has been in contact with methyl mercury present naturally in the environment and released into the air from industrial pollution. Because dose, dosage form, and frequency of use are important in assessing efficacy and safery supplement use should not be a contact with methyl mercury present naturally in the environment and released into the air from industrial pollution.
also be reviewed with the patient on a regular basis. ICE, Angiotensinconverting enzyrne. Cross-population, choleshigh serum that a shown studieshaveconsistently is one cholesterol LDL a high terol level and specifically Furthermortality. (Particlesmove out and fluid moves in at the same time.) Filtration is the passage of fluidsthrough a membrane.
Spices, particularly redandblackpeppers when inflammed. Dietary fat is also essential for the digestion, and transport of the DV provides 6 units and is considered high in vitamin E. The fat depots can expand as much as 1000 times
through hypertrophy alone, a processthat can occur at any time as long as spaceis availablein the adipocytes. Hyperplasia occurs primarily as a part of the growth process during infanry and adolescence, but it can also occur in adulthood when the fat content of existing cells has reached capacity. Other tubular defects, generally affecting resorption of
only a single solute, are treated with replacement of that particular solute. Practitioners should use the most up-to-date information when formulating recommendations for their patients. Obesity has severe associated risla: type 2 diabetes, hlpertension, atherosclerosis, some cancers, sleep apnea, infertility, gallbladder disease, and liver disease;
increased visceral fat has an important influence on metabolic and cardiovascular risk factors. Epigenetics, including gene silencing and genomic imprinting, is under active investigation presendy and is explored more thoroughly in reviews by Egger et a1.,2006; Mathers, 2005; Santoset al., 2005; and WaterlandandJirde, 2004. In the cardiovascular risk factors.
 addition to their association with the disordersdescribedhere, theseepigeneticphenomenahaveimplicationsfor the development for cancer. Many of the prorease inhibitor drugs used to treat HIV/AIDS are associated with altered taste and dry mouth. You can download the paper by clicking the button above. Directions should be written in common
measurements such as cups, tablespoons, and cansrather than milliliters. Simpson N, RomanK: Complementary medicineusein children: extent and reasons: a population-based study, BrJ Gen Prao 914.2001. Nishio K et al: Congestivehean failure is associated with the rate of bone loss, J Intem Med 253:439,2003. Lifestyle changescan lower blood
pressureand prevent or control hyperrension(seePathophysiolog and CareManngnnmt Algrithm: Tieatrnent of Hlpertension). Winkelmann BR et al: Haplorypesof the cholesterylester transferprotein genepredict lipid-modiffing responseto starin therapy, Pharmacogenomics J 3:284,2003. An infectious causeof diarrhea was ruled out. Table 25-4 oudines
the impact of associated oral infections in the upper gastrointestinal tract. Standardformulas are often concentrated nrovide 1.5 to 2 kcal/ml when fluid restriction is required for patients with cardiopulmonary renal, and hepatic failure. Because of their training, registered dietitians can also take a global approach to identi$ring measures for
ensuring a safe food supply and be effective members of preparedness planning groups when planning for the possibility of an attack or an outbreak. Jervis demonstraresa deficiency of phenylalanine oxidation in the liver tissue of an attack or an outbreak.
being passedfrom father to child. Compiled from amino acid data of Holt and Snyderman. Information on amino acid requirements of infans and children at different agesis limited; the figures given here are in excessofminimum requirements. Consequency, this table should be used only as a guide and should not be regarded as an authoritative
statement to which individual patients must conform. Approximately two thirds of the cases of acute coronary slmdromes (unstable angina and acute MI) happen in arteries that are minimally or mildly obstructed. Fermentable carbohydrates such as candy, crackers, cookies, pastries, pretzels, snack crackers, chips, and even fruits should be eaten
with meals. The syndrome appears to result from complex interactions among genetic, immunologic, and environmental factors. N utrition D iag n osis: Undesirable food she does not eat but provides
adequateamounts of the key nutrients she needs. Nutrition intervention strategies that use oral intake should stress the maximum use of favorite, nutrient-dense foods during times when intake is likely to be best and food aversions are least likely to occur. On hospital day 12, a nasojejunal tube replaced the nasogastrictube secondary to poor gastric
emptying and the inability to advancefeedings. Feedings were successfully advanced to the goal rate of 85 ml,/hr by day 14. \4/hen fr equendy taken in large doses, these drugs can inadvertendy lead to excessive magnesium consumption and hypermagnesemia, which refers to elevated levels ofmagnesium in blood. After eating meat, a person must wait
6 hours before consuming milk products. Refeeding slmdrome occurs when energy substrates, particularly carbohydrate, are introduced into the plasma of anabolic patients. (DHEA) Huppert F.\ V"n HiekerkJK: Dehydroepiandrosterone supplementation for cognitive function, CochraneDanbaseSyst Rea, CD0003042001. F-Bat
 assessespotential'r,rrlnerabilities along the farm-to-table continuum, provides guidelines to industry on food security and increased plant security featuresof FSIS laboratories(Bruemmeq 2003). Ports can be single or double; an individual port is
 equivalent to a lumen. apparatus Atferent arleriole Distal convoluted tubule aredirectconsequences The manifestations of renaldisease of the portions of the urinary tract systemmost affected. Monitor for sufficiency of pancreatic enzyme replacement. Wu AH et al: Adolescentand adult soy intake and risk of breast 23:1491,2002. Surgery depending or
 the location and extent, may alter eating or swallowing ability, as well as the capacity to produce saliva, basalstudy, Int I Cancer Eisen D et al: Oral cavity complications fone marrow transplanted kidney Eno-SrnceRennl rsEAsE Pathophysiology ESRD can result from a wide
variety of different kidney diseases. Currendy 900/oof patients reaching ESRD have chronic (1) diabetesmellitus; (2) hypertension; or (3) glomerulonephritis. With end-stagerenal disease (ESRD) come a myriad of problems related to the kidney sinability to excretewaste products, maintainfluid and electrolytebalance, and produce hormones. fu renal failure
slowly progresses, the level of circulating waste products eventually leadsto symptomsof uremia (seePathophysiolog and Care Managernent Algwithm: End-StageRenalDisease). However, urinary calcium losseshave been suggested to be similar for both plant and animal proteins following relatively long-term consumption (Bonjouq 2005). Although The
Joint Commission (TJC) emphasizes effective, efficient, collaborative, and consistent action from an interdisciplinary team (Comprehensive Accreditation Manual for Hospitals ,2006), some experts believe standards of care and practice guidelines for optimal nutrition support have reduced the need for nutrition support teams and services (American
 Society for Parenteral and Enteral Nutrition, 2002b). In an initial visit the counselor introduces the subject of the session. The following are samples: . Maximum rates of carbohydrate administration should not exceed 5 mg/kg/min. Before diagnosis, infants with CF often demonstrate growth failure. When needed by other cells, the latter are
hydrolyzed once again to fatty acids and glycerol through the action of hormone-sensitive lipase (HSL) within the adipose cell, and they are released and enter the circulation. Lung diseasecoefifcient 7. Matarese, MS,RD,LDN,CNSD, FA0A Director of Nutrition IntestinalRehabilitation and Tlansplantation Center Thomas E. Nutrition Monitoring Division
  Human Nurrition Information Service: USDA nationwide food consumption survey: Continuing survey of food intakes by individuals-1986, Nutr Today24(5):35, 1989. She currendy is retired, lives alone, and says indoors most of each day watching television. When about 90% of the triglyceride is hydrolyzed, the particle is released back into the blood
as a remnant. EichenbergerJMet al: Longitudinal pafternsof vitamin and mineral supplementusein young white children, J Am Diet . Assoe 105763,2005. This gene variant has implications for people using electron beam computed
tomography that measures calcium in the coronary arteries, showed that persons with a negative scan (Rich and Mclaughlin, 2002). *In the obese, underlying acute conditions are E; enerally controlled before treatment of obesity. American Academyof Allergy,
Asthma, and Immunology: Pediatrit asthma:prrmating bestpractice:guidcfor nannging February5,2006, astbmain cbild.ren, updated2002,accessed from www.aaaai.org. The uaditional process by which calcium and phosphorus are deposited in crystals
of hydroxyapatite, a naturally occurring form of calcium and phosphorus that is the mineral component of dental enamel and dentin. What types of exercisewould you be likely to discuss? Energy Increased energ'y needs are well recognized in infants with CLD and BPD. The complexity of today's environment and the interfacing of health promotion,
disease prevention, and community safety all impact the nutritional health of a community. In Rombeaa [L, Gonnan RC, Momis [B: Minimally inaasiaeaccess RolandellikH, editors: Clinical nutrition: enteral and tube feeding, Philadelphia, 1997, Saunders; and Zibrida [M, Carlson S]: Transitional feedings. In Gottschlich MM et al.: Nutrition support dietetics
core curricultm, ed 2, Siher Spring Md, 1993, American Society for Parenteral and Enteral Nutition). Growth of infants is followed closely because it is a major outcome indicator of medical and nutrition status. Would a supermarkettour be usefirl? Why or why not? For women AIDS diagnosis increased to total 27% of all new AIDS cases. Blood-handling
management has significandy decreased rates of HW infection for hemophiliacs and other blood transfusion recipients. 886 PART5 Medicall (utritionTherapy Heart Failure Mechanisms Compensatory nervous system Sympathetic Renin-angiotensin system I Heart Left Ventficular Hypertrophy or Hemodynamic Stressona Diseased to
Dietarysodiumexcess Medication noncompliance Arrhythmias Pulmonary embolism Infection Anemia * HeartFailure . Galactose (absorbed actively) and fructose (absorbed ac
components are the polyunsaturated omega-3 fatty acids. These fats are important in decreasing inflammation. Dietary fat is stored in adipose (fat) cells located in depots on the human frame. Medium-chain triglycerid.es (L[CT]) do not require
carnitine for oxidation. Thurineis an amino acid synthesizedfrom cysteine that may be conditionally essentialin metabolic stress. However, about 70/oto 8% of the population experience daily heartburn, resulting from frequent reflux of gastric and sometimes duodenal contents into the esophagus. The role of both of these molecules is to carry oxygen.
Controls and precautions in the area of limiting potential contaminants in the water supply are of continuing importance. The genetic revolution has ushered in nutritional genomics. The largest of newly infected behavior risk groups in the United
States are those with male-to-male sexual contact (42y"), followed by those with heterosexualcontact (3lo/"), and injection drug use (22'/.) (CDC, 2006b). Dietary protein needs are about 1.2 g/ kg, about 50% HBV protein, to make up for some losses through the dialysate (Thble 36-4). The relationship between nutrition and lung immune
defensemechanismsneeds special highlight (Figure 35-3). Older individuals in the United States and elsewhere, both men and women, may benefit from a combination of foods and supplements. In communities without fluoridated water, dietary fluoride supplements
Association: Position of the American Dietetic Association: impact of fluoride on dental health, J Am Diet Association: horth Am 49:595,2005. oil, light salad dressing The DASH sady hrd 270/o ofcalories as fat, including fat in or added to foods Sweets should be low in fat t/z cup (l oz) drystallouries.
cereal* % cup cooked rice, pasta, or cereal and fiber 1 cup raw, leafyveg. Initial:Na, K, COz,C1, BUN,Creat,Mg, Ca, Phos B. Vegetarians do not have a greater risk of iron deficienry than those who are not vegetarians do not have a greater risk of iron deficienry than those who are not vegetarians do not have a greater risk of iron deficienry than those who are not vegetarians do not have a greater risk of iron deficienry than those who are not vegetarians do not have a greater risk of iron deficienry than those who are not vegetarians do not have a greater risk of iron deficienry than those who are not vegetarians do not have a greater risk of iron deficienry than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of iron deficiency than those who are not vegetarians do not have a greater risk of the not vegetaria
SeeSmoking as cardiovascular diseaserisk factor, 849 toolerance, oral, absence, in food allergy development, 741 Index L349 tonic-clonic seizure, 1087-1088 definition, 1068 tonsillectomy, 659-660 tonsils definition, 740 in
immunity, 741 tooth (teeth) transcfipuon definition,366 DNA,61162b factors definition,366 peroxisomeproliferator-activated receptor, anatomy, 637, 637f development, nutritional factors, 637-638 loss of, dentures and,646 susceptible to caries,639 total energy expenditure (TEE) components, 24f defrnition,22,24 total iron-binding capacity (TIBC)
de{inition, 412, 8ll in iron deficiency anemia, 422,813 total parenteral nutrition (TPIrl), for dialysis patient, regimen, 946t toxemia, preeclampsia, definition, 160 roxlclry c o D a l t .l I) fluoride, 125 iron, 818-819 of biotin, 95 of calcium, 107 of chromium, 133 or copper, rr / of folate, 92 of fiodine, 129 of from 120, 120 b of magnesium, 113 of manganese, 132
of molybdenum, 134 of niacin, 88 of pantothenic acid, 89 of p h o s p h o m s, 1 1 0, I 1 0 f of riboflavin, 85 of selenium, 131 of thiamin, 84 of vitamin K, 82 zinc, 124 u a b e c u l a rb o n e, 6 1 5, 6 1 6 f definition, 615 trace elements, 114-127. For
the infant with pancreaticinzufficiency, enzymemicrospherescan be added ro a small amount of baby food or placeddirecdy in the infant'smouth. ASPEN (American Society for Parenteral and Enteral Nutrition): Guidelines for the use of parenteral and enteral nutririon in adult and pediatric patients, TPEN J Parenter Enteral Nutr 26:1, 2002. fHigh in
cholesterol. SeeMetabolic gmdrome Mexican dietary patterns, 353t MG (myasthenia gravis), definition, 1068 MI. Nicklas BJ et al: Effectsof apoliprotein cholesterolin women' metabolivn5|:853,2002. Thomson CA et al: PracticePaperof the American Dietary supplements
J Am Diet Assoc105(3):460, 2005. On the other hand, nutritional genomics (often shortened to "nutrigenomics") is the study of the impact of the environment in which the organism lives. pantoprazole, and
esomeprazole) B-blockers (such as atenolol or propranolol) Corticosteroids Insulin Nicotinic acid Nonsteroidal antiinfl ammatory drugs OISAIDs) Prostaglandin inhibitors (e.g., ibuprofen, indomethacin, naproxen, piroxicam, and aspirin) These medications may have their effects enhanced if taken together with chromium, or they may increase
chromium absorption. In the fastedstate, glucagonis secreted by the crcells of the islets of Langerhans. This hormone actsprimarily on the liver to stimulate glycogen breakdown to maintain blood glucose levels. Higher serum cholesterol levels resulting from mobilization of adipose stores pose a risk of gallstones. 3 oz Tirrkey, light meat, roasred, 3t/z oz
Beefchuck roast, lean only, roasted, 3 oz Chicken breast, meat only, roasted, 3% oz Noodles, enriched, boiled, % cup Macaroni, elbow, enriched, long grain, cooked, % cup Rice, brourn, long-grained, cooked, % cup Bread, cooked, % cup Rice, britely, cooked, % cup Rice, brourn, long-grained, cooked, % cup Bread, cooked, % cup Rice, brourn, long-grained, cooked, % cup Bread, cooked, % cup Rice, brourn, long-grained, cooked, % cup Bread, cooked, % cup Rice, brourn, long-grained, cooked, % cup Bread, cooked, % cup Rice, brourn, long-grained, cooked, % cup Bread, cooked, % cup Rice, brourn, long-grained, cooked, % cup Bread, cooked, % cup Rice, brourn, long-grained, cooked, % cup Rice, brourn, long-grained, cooked, % cup Bread, cooked, % cup Rice, brourn, long-grained, cooked, % cup Rice, brourn, long-grained, cooked, % cup Bread, cooked, % cup Rice, brourn, long-grained, which is a cup Rice,
enriched, whole wheat, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, I oz Bread, enriched, white, commercially prepared, I slice Walnuts, black, dried, a commercially prepared, a commercially prepare
carotid artery has been found to be predictive of MI and stroke (Sankatsinget al., 2005). Supplementation with supplementation to the
metabolic side effects of malnutrition and the role of individual amino acids is necessary (Engelen et a1., 2005; Rutten et al., 2006). Replacement therapy usually consists of large volumes of water and dietary supplements of bicarbonate, potassium, phosphate, calcium, and vitamin D. '. The medical management of HfV disease directed by robust
researchand frequently updated national guidelines availablevia the Internet. Vegetarian diets tend to be lower in iron than omnivorous dies, although the nonheme iron in fruits, vegetables, and unrefined cerealsis usually accompanied either in the food or in the meal by large amounts of ascorbic acid that aids in iron assimilation. A variety of flavors,
consistencies, and modifications of nutrients are appropriate for various disease states. Before surgery the patient should be evaluated extensively with respect to physiologic and medical complications, psychological problems such as depressionand poor self-esteem, and the extent of motivation. Gagliardi E et al: Predicting energy expenditure in the extensively with respect to physiologic and medical complications, psychological problems such as depressionand poor self-esteem, and the extensively with respect to physiologic and medical complications, psychological problems such as depressionand poor self-esteem, and the extensively with respect to physiologic and medical complications, psychological problems such as depressionand poor self-esteem, and the extensively with respect to physiologic and medical complications.
trauma patients:validation of the Ireton-Jonesequations, JPEN J ParenterEnteralNutr 19(suppl):225,1995[abstract]. Cell number increases in both lean and obese children than in lean children. It is also reasonable to use supplements to make up for dietary
inadequacies as needed. is aware of the patient's specialized nutritional requirements 3. Because much less oxalate than calcium concentration on the relative supersaturation of calcium-oxalate crystals. Continued 32 PARTI
(Sedentary) 1.12 if PAL is estimated be > 1.4 < 1.6 (Low active) 1.27 if PAL is estimated be > 1.4 < 1.6 (Low active) 1.45 if PAL is estimated be > 1.5 < 1.9 (Active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated be > 1.5 (Low active) 1.45 if PAL is estimated by 1.45 if PAL is estimate
AdolescentEER + 160 kcal (8 kcal/wk I x 20 wk) + 180 kcal Third trimester : Adult EER + 272kcal (8 kcal/wk x 20 wk) + 180 kcal Third trimester : Adult EER + 272kcal (8 kcal/wk x 20 wk) + 180 kcal Third trimester : Adult EER + 272kcal (8 kcal/wk x 20 wk) + 180 kcal Third trimester : Adult EER + 160 kcal (8 kcal/wk x 20 wk) + 180 kcal Third trimester : Adult EER + 0 (Pregnancyenergydeposition)
EER + 272 kcal (8 kcal/wk x 34 wk) + 180 kcal EER for Lactating Women 14-18 years: EER: Adolescent EER+ 400 - 0 (Milk energy output - Weight loss) 19-50 years: EAR: Adult EER' Milk energy output - Weight loss) Second months: EER + 400 - 0 (Milk energy output - Weight loss) 19-50 years: EAR: Adult EER' Milk energy output - Weight loss)
First 6 months: Adult EER + 500 - 170 (Milk energy oueut - Weight loss) Second6 months: Adult EER + 400 - 0 (Milk energy output - Weight[m]) where
>85th Percentile for Ovenueitht) TEE: 389 - 4r.2 x Age (1'r) + PA x (15 x Weight [kg] + 70t.6 x Height [m]) where PA: Physical activity coefficient: PA: 1.0 if PAL is estimated to be > 1.4 < 1.6 (Low active) PA: 1.35if PAL is estimated to be > 1.6 < 1.9 (Active) PA: 1.60 if PAL is estimated to be > 1.6 < 1.9 (Active) PA: 1.75if PAL is estimated to be > 1.8 if PAL is estimated to 
estimated to be = 1.0 < 1.4 (Sedentary) l.12 if PAL is estimated to be > 1.4 < 0.5 (Very active) Overweight and Obese Women 19 Years and Older (BMl > 0.5 kg/m" TEE: 0.5 Kg/m" TEE: 0.5 TEE
Physical activity coefifrcient: PA: 1.0 if PAL is estimated to be > 1.0 < 1.4 (Sedentary) PA: 1. Overall good dietary habis in children are associated with reduced carries experience (Dye et a1.,2004). The primary mechanism of potassium removal during ARF is dialysis. Control of serum potassium levels between dialysis administrations relies mainly on fV
infusions of glucose, insulin, and bicarbonate, all of which serveto drive potassiuminto cells. Rem i neral izat i on (mineral resroration to the hydroxyapatite in the dental enamel) capabilities are subsequently enhanced. Consume a healthy, nutritionally complete diet with adequatefiber. Heme iron enhances the absorption of nonheme iron. One of the
most essential competencies in the delivery of health care is effective multicultural communication. Whole medicine, Ayurvedic medicine, Ayurvedic
White or fuian ethnicity Sarcopeniaor slight body build Estrogen depletion Menopause Early oophorectomy in women Androgen depletion with hypogonadism in men Amenorrhea in women as a result of excessiveexercise Age, especially>age 60 Lack of exercise Prolonged use of certain medications Aluminum-containing anacids Steroids Tetracyclines
Anticonvulsants IJse of exogenous thyroid Diseasesor conditions that affect calcium and bone meabolism (seeBox 24-3) Underweight or low body fatness Cigarette smoking Excessivealcohol consumption Excessive affeine affeine consumption Excessive affeine 
degreesis well recognized as a causeof bone loss. If the patient's blood vesselsare frag;tle, an artificial vesselcalled a graft may be surgically implanted. Some patients with cor pulmonale and fluid retention require sodium and fluid restriction. Partners, families, colleagues, the media, and other influences all impact behavior. Fortunately for the
majority of patients today, the disease can be detected before neurologic q/mptoms or signs develop. Client: I just can't do everything right now. almostnormal, reducevirus in the blood, and establishequilibrium with HIV replication. Ford SK et al: Prospectivestudy of supplemental vitamin K therapyin patients on oral anticoagulants with international
normalized ratios, J Thromb Thromb Thrombolysis, February 2+, 2007. The distribution of C\rD varies by race and ethnic group (Thom et al., 2006). Adults with this syndrome present with acidosis, hypokalemia, polyuria, or Losses Measured urine output of previous 24hr Insensible water loss in 24 hr (varies with room humidity, and body temperature) Total
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water loss in 24 hr -200 mt -500 ml Nutrient Amount Protein 0.8-l gfu IBWincreasing as GFR returns to normal; 60% should be HBV protein 30-40 kcaVkg ofbody weight 30-50 mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum K+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum K+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum K+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum K+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum K+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum K+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum K+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum K+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum K+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum k+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase (depending on urinary oulput, dialysis, and serum k+ level); replace lossesin diuretic phase 20-40mEq/day in oliguric phase 20-40mEq/day in oligur

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oulput, edema, dialysis, and serum Na+ level); replace lossesin diuretic phase Replace output from the previous day (vomitus, diarrhea, urine) plus 500 rnl Limit as needed -700 rnl Input Water produced by meabolism in 24 hr (provided catabolismand weight loss are not occurring) Water to allow for fluid gain Water in usual diet in 24 hr Additional
fluid inake neededin 24 hr to replace lossesin urine Total fluid gain in 24 hr Toal fluid gain - total fluid gain for 24 hr 24-h fluid gain for 24 hr 24-h fluid gain for 24 hr 200ml 1700ml 1700ml 1700ml 1700ml 1 0 0 0 mx 1 2 : 2 L fluid gain
berween dialysistreatments Sodium Fluid Phosphorus GFR, Glomerular filtration rate; I1BZ, high biologic value; IBW, idealbody weight. on.ca./cftr HealthyPeople201?-Focus Area 24: Respiratory Diseases www. Below are some statements that indicate affrrmation: . N u t r i t i o n aGl e n o m iIcn f l u e n c e s o n G e n eE x p r e s s i o n In addition to
compensating for metabolic limitations, nutrients and other bioactive food components can influence gene expression. Some patients may decline early placement of a feeding tube because of the emotional, economic, or physical 1078 PART5: Medical Nutrition Therapy impact of this choice. Nonessential nitrogen is provided principally by the amino
acidsalanine and glycine, usually without aspartate, glutamate, cysteine, and taurine. Tiipp RR: World refugees. Even with pancreatic enzyme supplementation, fat-soluble vitamins usually remain inadequately absorbed. Individuals benefit from consumption of six to eight small meals per day,
with fluids taken between meals. Among stablepatients receiving enteralnutrition, constipation (FAO) and the World Health Organization (FAO) and the World Health Orga
recommendations. Bananas, which are cariogenic because of their fermentable carbohydrate content and adherence capability, have less potential to contribute to decay when eaten with cereal and milk than when eaten The carious process begins with the production of acids as a by-product of bacterial metabolism taking place in the d"ntai plaque
Kucuk O, Ottery FD: Dietary supplements during cancer treaffnent, Oncolog Issues17(srppl):24, 2002. Decalcification of the surface enamel contino., rtttil the buffering action of the surface enamel contino. weight loss
ensuesnot because insulin is kept in a narrow range, but because are restricted. He is 5 feet 10 inchestall and weighed 180Ib on admission to the ICU. Other types of health claims are the authoritative
organizations and agencies, as well as statements found within the body of '['JiT:3,il]0:i;.?" is thesetorstructure-run.,,on claims. As new screening technologies become commonplace, early detection and diagnosis should improve. Whatare her nutrition and diagnosis should improve. Whatare her nutrition and diagnosis should improve.
nutrition counselors are turning to life coaching to enhancenutrition counselingskills and increaseclient success. Coaching moves the focus awayfrom the RD as the expert who tells the clients do know how they want to accomplish their goals. Many clients already know the information the RD can be expert who tells the client what to do, to realizing that clients do know how they want to accomplish their goals. Many clients already know the information the RD can be expert who tells the client what to do, to realizing that clients do know how they want to accomplish their goals.
most valuable by helping them apply that information. Compher C et al: Bestpracricemethodsto apply to measurement of restingmetabolicrate in adults:a systematicrciew, J Am 106:881,2006. cow's milk, 206 proteolytic en4/mes definition, 3 in digestion, 10-11 proteolytic en4/mes definition, 10-11 proteolytic en4/mes definition, 10-11 proteolytic en4/mes definition, 10-11 proteolytic en4/mes definition, 10-11 proteolytic en4/me
psychologicalfactors, asnutritional risk factors, 386t psychologicalreactions, food reactions, food reactions, 447b with anticholinergiceffects, 447b with anticholinergiceffect
Nutr 81:12325,2005. On postoperativeday 7, the tubefeeding rate was increased of the DV for zinc is 15 mg The %DV listed on the Nutrition. Exercise . Following are examples of resistance to change. The DV provided in one
sewing. MedicalNutritionTherapy The role of dietary protein has been championed as a factor that increasesglomerular pressure and thus leads to accelerated loss of renal function. Subsequently these formulas contain protein fragments (dipeptides, tripeptides, or oligopeptides). They have been shown to be effective in reducing the incidence of new
fractures (Epstein, 2006). The South also has the greatest proportion of AIDS cases in rural areas (CDC, 2006a). The environment should be conducive to pivaqr, and there should be a plan for reduction of interruptions (e.g., no telephone calls, saff, or other patients ftnocking on the door). Calcium lactate and calcium aspartate are both more easily
digested but more expensive than calcium carbonate. Populations differ in the dietary approaches most appropriate for intervention and prevention. When combined with blocks fat absorption. "\4/hat would be the advantages of making a change?" Optimism. Other
tismes-Buccal cells and solid organ biopsy specimens are rarely used in nutrition laboratory assessment. This helps the client recognize the dichotomy in thinking that often prevents behavior change. Thus nutrition therapy will become an increasingly important therapeutic tool for maximizing health and minimizing the risk of diseasein
susceptible individuals. Could you make similar recommendations for improving her intake of viamin D from foods? Personality changes Withlossof. Some patients, and in some, s)./mptomsmay be related to heartburn. Apo B is also present in smaller
amounts in \{LDLs and IDLs of hepatic origin. Pramlintide was developed to counter the effects of amylin deficiency and is given at each meal in addition to an insulin bolus. Methods to provide nutrition support is necessary
(seeChapter20). Krummel, PhD, RD KHY T€RMS apolipoproteins proteins that carry lipids in the blood and control the metabolism of lipoprotein molecules atherosclerosis;qmonym for plaque atherosclerosis disease characterized by thickening and narrowing of the arterial walls caused by inflammation and the
accumulation of oxidized cholesterol, smooth muscle cells, and fibroblasts below the intima, or innermost layer of the artery atherothrombosis atherosclerosis and thrombus caused complications; major causeof angina, heart attack, and sudden death bile-acid sequestrant medication that adsorbs bile acids, which prevents absorption back into the
bloodstream, thereby lowering blood cholesterol levels G-reactive protein (CRP) a protein rymthesized in the liver in the acute phase response to inflammation; marker of inflammation in cardiovascular disease chylomicron the lipoprotein particle that transports dietary fat from the intestines into the circulation coronary heart disease or coronary artery
diseasedisease characterized by impaired blood flow in the coronary arteries, which can result in anyone of the lipoprotein fraction, and sudden death dyslipidemia an abnormality in any one of the lipoprotein fraction, and sudden death dyslipidemia an abnormality in anyone of the lipoprotein fractions endothelial dysfunction impaired function of endothelial dysfunction impaired function fractions.
fibrinolysis and thrombosis, inflammatory response, and maintenance of volume and electrolytes in intravascular and extravascular spaces familial combined hyperlipidemia(FGHL) a common lipid disorder characterized by elevated plasma low-densitylipoprotein cholesterol or a triglyceride level above the 90th percentile in at least two family
members; the result of overproduction of lipoproteins by the liver familial dysbetalipoprotein cholesterol; characterized by elevated serum total cholesterol and triglycerides and apo E-2 allele (FH) a genetic defect in the familial hypercholesterolemia ability to metabolize low-density-lipoprotein cholesterol; characterized by
hypercholesterolemia >300 mg/dl), xanthomas, advanced atherosclerosis, and premature death fatty streak earliest lesion in atherosclerosis; cholesterolemia >300 mg/dl), xanthomas, advanced atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesion in atherosclerosis; and premature death fatty streak earliest lesi
high levels of which are associated with a decreased risk of coronary heart disease HMG CoA reductaseinhibitors classof drugs that lowers cardiovascular risk by inlibiting the rate limiting enar me in cholesterol synthesis (I (MG CoA reductase), which decreases blood cholesterol levels; also functions as an antioxidant homocysteine an amino acid
metabolite of methionine that has been identified as a potential risk factor for cardiovascular disease hyperch o lesterolem ia elevated lovel hypertriglyceride level in plasma intermediate-densitylipoproteins (IDLs) products of very low-density lipoprotein catabolism that are the precursors of low-densitylipoprotein catabolism that are
lipoproteins and considered atherogenic; not routinely measured ischemia insuf8cient blood flow in a tissue resulting from functional constriction or actual obstruction of a blood vessel lipoproteins, solubilize lipids for transport in the bloodstream 833
834 PART5 MedicalNutritionTherapy low-densitylipoproteins(LDLs) classof lipoproteinsthat are the predominant cholesterolcarriers in the blood and consideredatherogenic; main target for interventions becausehigh levelsare associated with increased risk of cardiovascular disease metabolics yndromeconstellation frisk factors-glucose intolerance,
hlpertension, abdominal obesity, low highdensity-lipoproteincholesterol, and hypercholesterolemiathat increases the risk of cardiovasculardisease myocardialinfarction(MI) ischemiain one or more of the coronary arteries esulting in necrosis, tissued amage, and sometimes suddendeath nitric oxide key vasodilator produced by endothelial cells; also known
as endothelium-derived relaxing factor or EDRF; preventslow-densitylipoprotein oxidation plaqueearly lesionsseenin atherosclerosis; composedof cholesterol,calcium,and fibrin risk factors characteristics foundin healthyindividualsthat increasethe likelihoodofa persondevelopinga disease; for coronary heart disease,major risk factors are
hypercholesterolemia, hypertension, obesity, and cigarettesmoking stroke occlusionor hemorrhageofa cerebralartery esulting in impaired function, tissuedamage, or death thrombus a group of blood factors, primarily platelets and fibrin, which, if small, can contribute to the growth of plaqueand, iflarge, canobstruct a blood vessel, resulting in
 angina, myocardialinfarction, or suddendeatn very low-densitylipoproteins (VLDLs) primary trigly ceridecarrying lipoproteins that transport endogenouslipid from the liver to the peripheralcirculation xanthomacholesteroldeposits (from low-densitylipoproteins) seen the
leadclisease ing causeof death in the United Statesfor every year except 1918 (Thom et al., 2006). Of these deathsfrom C\rD, 5i% are from coronary heart disease (impaired blood flow in the coronary arteries that results in angina, myocardial infarction, and sudden death), and 177" are from stroke. Children and adults need additional salt during periods are from coronary heart disease (impaired blood flow in the coronary heart disease).
of fever, hot weather, or physical exertion. Hyperosmolar medications such as magnesium-containing antacids, sorbitol-containing elixirs, and elecmolyte supplements can also contribute to diarrhea. Negotiate behavioralplans that work Effective Facilitator Skills. Cycled infusions should not be attempted figures and elecmolyte supplements can also contribute to diarrhea. Negotiate behavioralplans that work Effective Facilitator Skills.
problem, SampleParenteral NutritionFormulations Adult Patlent* Institution/PharmacyName, Address, and PharmacyPhoneNumber Name Adminisration date,/time Macronutrients Dextrose Amino acidst Lipidf Electrolytes Sodium chloride Sodium acetate Potassium phosphate Dosing weight 70 kg Amount/day 400 g 100 g Calcium
gluconate Magnesium sulfate Vitamins, trace elements, and medicarion Multiple vitaminsf Multiple trace elementsf Infusion rate 100 ml,/hr *From-National Location Expiration dateltime (Amount/L) (166.7 g/I-) 65s (+r.7gn-) Q7.rgn) 80 mEq 80 mEq 40 mEq 30 mmol of P (45 mEq of K) 10mEq l0 mEq (33.3mEq/L) (33.1mEq/L) (16.7mEq/I-)
(12.5mmol/|,) (18.8mEq/L) (4.2mEq/L) (4.2mEq/L) (4.2mEq/L) (4.2mEq/L) (4.2mEq/L) (+.2 n:Fq/I-) 10ml 1-3ml* Volume 2400ml Admixnrrecontains 2,100ml plus 100ml overfill **Central Line Use Only*"* Infuseover 24 hr Advisory Group on Standards and Practice Guidelines for Parenteral Nutrition, ASPEN: Safe practices for parenteral nuffition formulations, JPEN J Pnrmter Entnal Nutr 22(2)t+9
1998. Parents and caregivers need to understand the causesand consequences of ECC and how they can be avoided. WeTGHTIMSALANCE: ExcESsrvELEnNNEssoR N I N T E N T I O N A LW E I G H T L O S S Almost eclipsed by the attention focused on obesity is the effort of some people to gain weight. Frank vitamin deficiency has been widely
repofted at northerly latitudes in North America and Europe. Calculation of the body mass index may be insufficient to detect alterations. Potential food-supplement interactions. Potential food-supplement interactions and Europe. Calculation of the body mass index may be insufficient to detect alterations.
 AccessRegional Cancer Hospital DatabaseStudy Group, J Clin Oncol22:446,2004. Penetrance is a fascinating concept and of particular interest to nutrition professionals because it is likely the result of environmental factors modulating the expression of rhe gene, Glassic Modesof Inheritance Mode of Inheritance Autosomaldominant
Autosomal recessive X-linked dominant X-linked dominant X-linked dominant X-linked recessive YJinked Related Disorders Albrightherediary osteodystrophy, Duchenne and Indoorn errors of metabolism such as phenylketonuria, tyrosinemia, maple symp urine disease Fragile X slmdrome Nephrogenic diabetesinsipidus, adrenoleukodystrophy, Duchenne and Indoorn errors of metabolism such as phenylketonuria, tyrosinemia, maple symp urine disease Fragile X slmdrome Nephrogenic diabetesinsipidus, adrenoleukodystrophy, Duchenne and Indoorn errors of metabolism such as phenylketonuria, tyrosinemia, maple symp urine disease Fragile X slmdrome Nephrogenic diabetesinsipidus, adrenoleukodystrophy, Duchenne and Indoorn errors of metabolism such as phenylketonuria, tyrosinemia, maple symp urine disease Fragile X slmdrome Nephrogenic diabetesinsipidus, adrenoleukodystrophy, Duchenne and Indoorn errors of metabolism such as phenylketonuria, tyrosinemia, maple symp urine disease Fragile X slmdrome Nephrogenic diabetesinsipidus, adrenoleukodystrophy, Duchenne and Indoorn errors of metabolism such as phenylketonuria, tyrosinemia, maple symp urine disease Fragile X slmdrome Nephrogenic diabetesinsipidus, adrenoleukodystrophy, Duchenne and Indoorn errors of metabolism such as phenylketonuria, tyrosinemia, maple symp urine disease properties and tyrosinemia and tyrosin
muscular dystrophy disorder Retinitis pigmentosa which suggeststhat modiS'ing such factorscan potentially improve outcomesfor thosewith somedisorders. Appropriate self-tallg such as "I'll enjoy one slice of my birthday cake because suyed on my eating plan today," can sometimeshelp patients deal more objectively with diffrcult situations.
Últimas recomendaciones de NIH. Children younger than 6 years of age should not use fluoridated mouthwash. In general, SCFAS are considered to have 4 to 6 carbons, medium-chain fatty acids 52 PARTI: NutritionBasics Classificationof Lipids Simple Lipids Fatty Acids
Neutral fax: Esters of faty acids with glycerol Monoglycerides, diglycerides, diglycerides Waxes: Esters of fatty acids with glycerol Monoglycerides waxes. Esters of fatty acids with glycerol Monoglycerides waxes. Esters of fatty acids with glycerol Monoglycerides, diglycerides, diglycerides, diglycerides, diglycerides waxes. Esters of fatty acids with glycerol Monoglycerides, diglycerides, diglycerides, diglycerides waxes. Esters of fatty acids with glycerol Monoglycerides, diglycerides, diglycerides
Glycerophospholipids (e.g., lecithins, cephalins, plasmologens) Glycosphingolipids (e.g., sphingomyelins) Glycosphingolipids (e.g., cerebrosides, and a nitrogenous base (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, ceramide) Lipoproteins: Particles of lipid and protein Miscellaneous Lipads Sterols (e.g., cerebrosides, gangliosides, cerebrosides, gangliosides, ganglios
From Examples of currentandproposed ingredie ns for fas, J AmDiet '4ssoc 92:472, 1992. Chronic bronchitis Asthma fupiration (foreign body, food, fluid) Lung cancer Pneumonia Tirberculosis Acute respiratory failure Lung tansplantation Obstructive Reduced Intake Fluid restriction Shortnessofbreath Decreasedoxygen saturation when eating Anorexia
resulting from chronic disease Gastrointestinal distress and vomiting Addltlonal Umltatlons Difficulty preparing food because of fatigue Lack of fnancial resources Impaired feeding skills (for infans and children) Altered metabolism layer over the mucous membranes of the phanTnx, larynx, and trachea. Tell me more about your concerns and feelings.
s007L, b I:Ls 14 n N ruuog 6a8elue^peqt eJeter L:s1arpuerrelaSe1:3 uueuzlleT '1002'9bT.t1l 'srrdnl:lEre V egre-I sndnT pue terc '9002'gllstbs MagJpoogtlt7V 'prrerrelour1 f urErlr?r]xeruo { sprdgpernlnls pale8nfuoepue lro e,,r.go Jo &rlrgEtsa^Deprxonuv:1era gf ae1 ' g[ 9007' t6l:\ogl l0107.una uldg un3'tnoE puelarp ur
sluaurdola^ep luereg: praf5 ae1 '9661'LbZt96 'srtrttqtte rlss7 u,y proterunarlr lat(I tnoqtr-tt f pu? CHAPTER 2li WeightManagement557 Evaluadonand teatmenr of Chitdhoodand AdolescentObesiry Maternal and Child Health Bureau, Health Resources Jhe I and Services Administration, and the Departrnent of Health and Human Servicesconveneda
committee of pediatric obesity experts in 1997, which issued recommendations for identifzing obesechildren, evaluating them. (Consider issuesrelated to food and water safety, budgeting assistance, and food assistance, and food assistance, and food assistance.) N J it " single mom who is in her secondtrimester of pregl-nanry. Thomas T: Intermittent parathyroid
hormone ttrerapy to increase boneformation, Join BoneSpine73':262,2006Thrash LE, AndersonljB:The femaleathlete tritd, Nut Tbday l 5: 1 6 82, 000. Alleles that do not dominate the genotype when only a single copy is present are called recessive. The changed allele is present in the genome but it is not expressedunless two copies are present
Healthyolder adults should have a BMI between 24 and 27. Seea/so Selenium Minnesota Multiphasic Personality Inventory (MiIPD definition, 470 in energyproduction, 589 MSM (ethylsulfonyl methane) mitochondrial moxibustion, 472 as ergogenical definition, 470 in energyproduction, 589 MSM (ethylsulfonyl methane) mitochondrial moxibustion, 472 as ergogenical definition, 470 in energyproduction, 587 definition, 470 d
605t definition, 365 MS (multiple sclerosis), 1093-1094 mitochondriallevel, disease at, 375 definition, 1068 MNT, SeeMedical nutrition therapy MSUD (mapleq'mp urine disease), 11+5-11+6t MODS. Decision Point PartD homeinfusion pharmacycoordinates and arrangesfor ancillary service coverage with State. PATH0 PHYSroL0cY, EttoL0cY, AND
GINSSIFICATION (AIDS) was first The acquired immuned efficiency syndrome described by the Centers for Disease Control and Prevention (CDC) in 1981 (Fee and Brown, 2006). Prevalence of CVD in ouomei and men,
respectively. More than 71 million Americans have at least one form of C\lD (i.e., hypertension, coronary heart disease, or heart failure). Compelling reasons were that data from healthy individuals were not adequate and that it is difficult to separateother factors that may contribute to blood glucose levils from
the effect of the glycemic index. J Am College Melchart D et al: Echinaceafor preventingand treating the DatabaseSystRn, CD000530' 2000. Below are examples of these types ofbehaviors. L296 APPENDIXES There are only a few food sources of vitamin D. HfVinvades the genetic core of the CD4+ cells, also calledT-belperlymphorytecelk, which are the
principal agents involved in protection against infection (Figure 38-1). Prescribed medications include theophylline (300 mg twice daily), albuterol and Atrovent (two puffs as needed), Bacrim DS (l ablet every 12 hours), and Lasix (asneeded). Many
dieteticsprofessionalshave not developed appropriate counselingskills and may have litde or no preparation in applying cultural concepts to practice. She currently does not developed appropriate counselingskills and may have litde or no preparation in applying cultural concepts to practice. She currently does not developed appropriate counselingskills and may have litde or no preparation in applying cultural concepts to practice. She currently does not developed appropriate counselingskills and may have little or no preparation in applying cultural concepts to practice.
Group 16OOkcal Servings,/Day 20OOkcal Servings/Day 2600 kcal Servings/Day 31OOkcal Servi
5/week z-3 L-) 2 Dietary Guidelines Food Group Grains Servings/Day 6-13 Vegetables 3-6 Fruits 4-6 Low-fat dairy 2-4 Meat, poultry, fish 1-l Nuts, seeds, legumes 3/wk- lldry Fat 2-4 Sighificance of Each Food Group ServingSizes Examples 1 slicebread Whole-wheat bread, English muf6n, pita bread, bagel, cereals, gtits, oatmeal, crackers, unsalted
pretzels, and popcorn Tomatoes, potatoes, prunes, raisins, grapefruit and juice Major sources of energy Fat-freeor 1% milk, fat-
 free or low-fat bumermilk,yogurt, or cheese Selectonly lean meats; trim awayvisible fas, broil, roast,boil, insteadof fi:ying; remove skin from poultry Almonds, filberts, mixed nuts, walnuts, sunflowerseeds, kidney beans, lentils Major sourcesof calcium, vitamin D, and protein Rich sourcesof protein, zinc, and magnesium Soft margarine, Iow fat mayo, veg.
 "Best practice" recommendations for the nutrition management of children diagnosed with cancer are general guidelines. It is important to continue monitoring the patient for adequate oral intake once parenteral nutrition has been stopped and to initiate alternate nutrition support if necessary. For a person who has severe esophagitis, a low-fat,
liquid diet may be better tolerated initially becauseit does not increase esophagealdistention and it may pass more easily through any strictured areas. Fastingtriglyceride levelsare classified as normal (500 mg/dl) (NCER 2002). A drastic reduction in calories resulting in a high rate of weight loss can mimic the starvation response. Tissue response to
starvation, is one of adaptation to an anticipated period of deprivation. Avoid tight-fitting clothing, especially after a meal. fat, all grades, 3 oz Chickpeas, cooked, % cup Duck, meat only, roasted, 3 oz Cowpeas, cooked, % cup Ground beef, 15o/o fat,
cooked, 3 oz Tomato puree, 7z cup Lima beans, cooked, % cup Soybeans, green, cooked, % cup Refried beans, cooked, % cup Refried beans, cooked, 3 oz Tomato paste, 7+cup Milfigtams Per Serving VoDally Value* 23.8 1 . The following statements and questions are examples that create an atmosphere
for discussion: FIGURE 19-3 This nutrition counseloris using reflective listening techniques with her client. Fructans include fiaxooligosaah arides (FOS{, inulin, inulinrypefiaaans and oligofiuctoseand are composed of fructose 48 PARTI: NutritionBasics Types, Composition, Sources, and Functions of Fibers Type of Fiber Major Chemical Gomponents
Sources Major functions Whole wheat, bran, vegetables Increasewater-holding capacity, thus increasing fecal volume and decreasinggut transit time Less SolubleFiber Cellulose Glucose (p-1-4 Hemicellulose Lignin Iinkages) Xylose, mannose, galactose Phenols Bran, whole grains Fruits and edible seeds, mature vegetables Fermentation
produces short-chain fatty acids associated with decreased risk of tumor formation, t"husdecrease gastric emptying, slow digestion, gut transit time, and glucoseabsorption Also binds minerals, lipids, and bile acidsincreasing excretion of each, thus decreasing excretion of each, thus decreased risk of tumor formation.
acid Oats, legrrmes, guaq barley Pectins Polygalacturonic acid Apples, strawberries, carrots, citrus Chitin Glucopyronoase Supplement from crab or lobster shells Extracted from natural sources: chicory onions etc Oat and barley bran
Isolated from algaeand seaweed Prebiotic which stimulates growth of beneficial bacteria in gut, used as fat replacer Reducesserum cholesterol Gel forming-used as thickeners, stablizers (can be toxic) Polydextrose, polyols Glucose and sorbitol etc. Institute of Medicine (IOM), Committee for the Study of Public Health: Thefuture of public beahh: a
uision of public heahh in America: an attainable lnel, Washington, DC, 1988, National AcademiesPress. BarkerME et al: Serumretinoids and B-caroteneaspredictors of hip and other fracturesin elderly women, J BoneMiner Res 20:913,2005. Pitder MH, Ernst E: Kava exrract for treating anxiery, Cochrane DatabaseSystRn, CD001383, 2001. % . SpearsK
et al: Low plasmaretinol concentrationsincreasethe risk of developingbronchopulmonarydysplasiaand long-term respiratorydisabilityin very-low-birth-weightinfanrs, Am J Clin Nutr 80:1589.2004. Parenteral nutrition is reserved for patients with a nonfunctional or severely diminished (by virtue of surgery, obstruction, or infarction) small bowel.
 Repletion but not overfeeding is the long-standing hallmark of nutrition care (Ryan et al., 1993). Although most srudie! in persons with diabetes have used omega-3 supplements and show beneficial lowering of triglycerides, an accompanying rise in LDL cholesterol also has been noted (Montori et al., 2000). Diagrrosis of cystic fibrosis was made on
finding sweatchloride of 105 mEq/L and undetectable digestive enroge levels in duoden also retions. The ranges are achieved with vitamin K in low dose supplementation, and fluctuations are few (Ford et a1., 2007) (see Chapter 16).
govllechResources/Human Genome/glossary Human Genome Project www.genome.gov www. Hilton M, Stuart E: Ginkgo biloba for tinnitus, CochraneDatabase SystRn, CD003852,2004. Dialysatecontaininga high-dextroseconcentrationis instilled into the peritoneum, where diffirsion carrieswaste productsfrom the blood through the
peritonealmembrane 932 PART5 I MedicalNutritionTherapy Diffusion is the movement fluid across a semipermeable membrane. Tea, for Osmosis is the movement fluid across a semipermeable membrane from a lower concentration from a tea bag into the sunounding water. Your family is
DietAssoc1061226,2006. .% loss. i-' 3E a fl e.! 6' . Very low-fat diets are low in vitamins E and 812and the mineral zinc. of the Mouthor Esophagus, it may be necessary to provide oral nutrition support in liquid form. Acidsecretion suppression with: Protonpumpinhibitors or H2-receptor blockers
 Decrease consumption of: . Ernst E: Efficary of ginger for nauseaand vomiting: a systematic review of randomizedclinical rrials, Br J Anaesth84:367,2000. The content of selenium in food depends on the selenium content of the soil where plants are grown or animals are grown or animals are raised. A method for calculating the appropriate quantities of a Phe-free formula is
shown in Table 44-4.It must be stressed that calculations should provide adequate but not excessive energy for the infant, as well as appropriate fluid to maintain hydration. The recommended dietaryallowance (RDA) presents the amount of a nutrient needed to meet the requirements of almost all (970/"to 98%) of the healthy population of individuals for
whom it was developed. An RDA for a nutrient should serveasa goal for intakefor individuals, not as a benchmark of adequacyof dietsof populations. American Cancer Society (LCS): American Cancer Society and a hetnatioemethods of cancer management, Adanta, 1999, American Cancer Society and a hetnatioemethods of cancer management, and a hetnatioemethods of cancer management, and a hetnatioemethod soft cancer management and a hetnation and a hetnatio
treatedwith low-sodiumdies, diuretics, and statinsto lower hyperlipidemia (Appel, 2006). Major players include voluntary agencies such as the American Red Cross, the SalvationArmy, and and organizations. Is this correct?" Example 2 Client: "I feel like I let you down every time I come in to see you. SeeAromatic amino acids branched-chain. Hoffman
 F: Outcomesand complicationsafter heart transplanation: 20(5zuppl):S3l'2005. Long-term clinical trials have not been performed using specific fatty acids, and identification of the ideal dose or form of lipids to be used in the diet has not yet been established. elqnor applrur snpqdecorplq; o suSrsreWO 'rptep ur tFS -e.rlgcrnb duurreqr (43f arnssard
 leruercerulpaseeJcur Jo uoDrpuoc3'snlEqda3orpf,q SuruereeJlp-eJll aletrdrJeJd fBur snlJ'tse,v'oJffuerp srlr aJag,rtualslsJelncrruel uortJrLnsqo egl pnrsqo ltru uratsureJq eqlJo suorsaT pue runlleqeJeJ 'slrrgap ples lcnsr Jo sadlr ruoreJJrp IBre esesneJuer, {e.,r,lqred Fnsr^ eql 3uo1eslulod Jeqlo lE suorssT'ees louuBc erls Jo er{ rBr{}eJBAsunsr 8ur&ez';o
ssauputlq tuarledeqt uonrpuoJsrql q 'sae-r8ep 'uorsr,rro; luoluoo rnoqeSurrqdeurerag uorrcurysdppue pe^JeseJeJEseqol plrdrcco agJ 'sruelqordqcaedsasnec enreu;eebIcco3 urnr0es o^reu lercBslslu qleaqslPrnc uo!le^rauul alcsnur 6e1 #t-Z i:1 'enlq ur er€ slo^el snorrel dq perlddns sea-re dpoq laprsrqSr-reqt uo pereqrunu ere eeJqeue^ :aprsUel eql
uo paregrunuere sa,usupurdg .1euec Ierqetre^aqt uqlr,tr.3ur.(1pror leurdg 1-1g lUngIJ 'dr:t o^reurequrnllsjrl requrnl I Oerqol.le^ !6.ttg/- ov 6 uolle^Jouu! alcsnu lsoqc pue lPuruopqe 'uorlesuos ulIS :''*)t-L e+tr- 9 v +, '------': q.tl- - E :-z o-$ z ------gl L AeJqOUA^CrCerOqI ,E r-----'-= o^leu clceJoql lsllj L L Aerqol.ro^ lecr^roc IZ0I o^rou
lecr^roclsJl srapros!0 3!6olornaN rol lderaqluorlrrilNlEsrpaw: It u3ldvHS 'spuarg' {5uu;10 deruspeourIS?q eql uo puadep lueue^lo^u Surftspespue pooJ01ssaJJV'surecuoc eJBuopulnupur pue ro; ,{rqlqe eqr repury spaauIeuoplnnu Suqplnd 'arBJ-JIas .{pruuoqcunJur eurTrepe 'saseasrp cr5olorneuJr-uorqJqll,1A 0001 0r ss3c3v Hrrn slr31s0ud 'uolt of the contract of the contrac
atenbapea-rrnbaruruoloJespue euturedopsrel -lrrrsuertoJnaueqrJo srseqludser1lesnecaqparou eg p1noqs ssrueuv ?srJ lBuoBrrnu Jo aaneJlPulsl eJoruJo %01 Jo 'rq8ra.treurle$q e saqsrlqrlsol:orslq ssol e pue rq8ra,Ll 'SurneqJ 'uonse8ur eler put '3ulro11e.,ns rq31er,y1 ltrruou Jo ol Irydlaq sl l:otsrq rerp eqJ 'ure8ro ssol ;o surauedssesse rq8re,r;o
LrorsrqB sEIIa.t' se 'f:olsrq terp palrcrepB epnlrur p1nor{s r1 '(gEmpuaddypue 'SI puej1 srardeq3aas)ruaned uoRulnN eqr SurSeueruul dels rsJS eqr sr tuerussesse 'oJII Jo lrlpnb qruanedet1rpue seruoc} noSurnordrut 'pnuassasr lueure8euerue8eesrp ;o po8 eleurFln ar1rrplrt orp ot uoDEIaJur sntslsuogrrnu s,tuaDrdarp Jo uoBtnle^a rep5eg 'sdelsr-rg
 eresacroqcf-rslerpuo s.reguraur,!rue;pue pue'pnpr,upute {rJo slueurermber rueuederlrJoJSuqesrmoc erp laaruor ueydareceleudorddeue;o uo4elueru Ieuopr.Dnu -eydurr'suroldur,{spue suSrs;o uoDnr5oca.r dpeg 'uoDr-Dnu 'posrur leur JoJ8rJ t? fu the name suggests,glucocorticoids increaseblood glucoselevels,largely by stimulating
gluconeogenesis. Cortisol also enhancesthe releaseof fat and amino acids from adiposeand muscle tissue, thereby providing a substratefor adenosinetriphosphate sl. nthesisand gluconeogenesis. Growth hormone, produced by the anterior pituitary gland, increasesthe blood glucose level by antagonizing insulin action and diminishing cellular uptake of
 glucose. It alsoincreasesamino acid uptake and protein slmthesis by all cells and increasesthe mobilization of fat for energy. Updatedby L. This occurs most often with moderate to strenuous activity lasting more than 45 to 60 minutes. The counselor repeats the basic observation that the client has provided and then offers a new hyryothesisfor
 interpreting the data. Environmental, social, andiolitical issuesare as important as nutrition in organic farming and whether a consumer decidesto "go organic." The organic food industry representsjust over 20/00f food salesin the United Statesand is growing at the rate of 20o/oper year. ct-Glucosidase inhibitors work in the small intestine to inhibitors to inhibit or a consumer decidesto "go organic." The organic food industry represents in the small intestine to inhibit or a consumer decidesto "go organic." The organic food industry represents in the small intestine to inhibit or a consumer decidesto "go organic." The organic food industry represents in the small intestine to inhibit or a consumer decidesto "go organic." The organic food industry represents in the small intestine to inhibit or a consumer decidesto "go organic." The organic food industry represents in the small intestine to inhibit or a consumer decidesto "go organic." The organic food industry represents in the small intestine to inhibit or a consumer decidesto "go organic." The organic food industry represents in the small intestine to inhibit or a consumer decidesto "go organic." The organic food industry represents in the small intestine to inhibit or a consumer decidesto "go organic." The organic food industry represents in the small intestine to inhibit or a consumer decidesto.
enzyrnes that digest carbohydrates, thereby delaying carbohydrate absorption and lowering postprandial glycemia. Finding the perfect image means either searching for it or just seeing where your curiosity takes you. CCO/kleinAlexis/Pixabay Desktoppr Besides having a friendly interface and a large amount of crisp wallpapers, Desktoppr has made a
name for itself because of its social-media leanings. What is the maximum amount of carbohydrate(per 24 hours) that could be given to Jerome parenterally? Inflammation, erosions, ulcerations, changes in the blood vessels, and destruction of surface cells can be identified. By contrast, nutrition has a systemic effect. However, an egg yolk containing a
drop ofblood cannot be eaten becausethe blood is considered a chick embryo, or a sign of a new life. To be useful to the cells, information in the DNA must first be decodedandtranslatedinto proteins, which perform the work of the organismat the cellular level. osteoporosis, New SA et al: Dieary influenceon bonemassand bonemeabolism: further
evidence of a positive link between fruit and vegetables consumption and bone heakh? AmJ ClinNutTl:142,2W. In view of the recentincrease of high fructosecorn syrup in the Americandiet, the metabolism of fi:uctosemay have important health implications. The uansition to insulin often begins with a long-acting or premixed insulin given at bedtime to
control fasting glucose levels. Chubak et al: Effect of exerciseon bone mineral density and lean massin postmenopausal women, Med SciSpomErerc 38:1236,2006. Energy requirements for weight maintenanceafter weight reduction appear to be 250/olower than at the original weight. As more products become available, with claims for pharmacologic
effects, clinical evidence for new products must be evaluated before a decision is made to use a formula. TEE: r Moderate lung disease: 0.2 (FEVr '10"/" to 79"/" of that predicted) o SevereIung disease: 0.3 (FEVr 93 % of intake, including when the patient is aking enzymes).
severed. Understanding the mechanism of appetite regulation is an exciting area ofresearch for new treaffnents. On the one hand, clients want to make changes; on the other hand, they want to pretend that change is not important. A study that reviewed the use of CAM therapies by cancer patients while undergoing cancer treaffnent reported that
more than 90o/" of patients surveyed reported using at least one form of CAM, and, of the patients discussed the use of CAM modalities with at least one physician (Yates et al., 2005). After surgery individuals commonly experience fatigue, temporary changes in appetite and bowel function caused by anesthesia,
and pain. The American Dietetic Association examined the question of the effectivenessof the popular low-carbohydrate (less than 35% of calories) diets (e.g., Atkins, South Beach). A review of 14 accepted that consumption of ad libitum low-carbohydrate diets (only the intake of carbohydrate is limited) and reduced-calorie diets
both result in lower caloric intake. Metheny NA: Risk factors for aspiration, /PEN J Parenter Enteral Nutr 26(6):265, 2002. Pain can be a result of the tumor iself or a consequence ftreatment, or it can have a psychological component. Content will vary according to rhe age, gender, and diseasestate of the individual resident. Its role in
 hydrolyzed protein and free amino acids such as those developed for patients with renal, liver, and malabsorptive diseasestend to be mildly to markedly unpalatable, and acceptance by the patient 524 PART3 I Nutrition GareProcess depends on motivation. The strong positive charge on chitosan binds negatively charged lipids, blocking their
absorption. ar-Receptor blockers LifestyleModification. Lee? It is important to include foods high in vitamin E on a daily basis to get enough vitamin E from foods alone. More than 95% of the casesof nephroticsyndromestem from three slntemic diseases (diabetes mellitus, SLE, and amyloidosis) and four diseases that are primarily of the kidney
minimum changedisease(diseaseseenonly with electron microscopy), membranousnephropathy, focal glomerulosclerosis, and membranoproliferative glomerulonephritis. Therefore these values are average approximatrons. Early and correct diagnosis is key to treaffnent, with the elimination of environmental causes. Once the disease progresses, in
addition to pulmonary rehabilitation programs and orygen therapy, numerous medications are prescribed, mainly bronchodilators, glucocorticosteroids, and mucolytic agents, along with antibiotics to treat infections (see Chapter 16). Selenium is also found in some meats and seafood. 1999: Terahydrobiopterin @Fla)-responsive forms of PKU have
been recognized, especially those with mild mutations. Another anticariogenic mechanism of rylitol gum is that it replaces fermentable carbo- promotes remineralization of enamel surfaces. Strumrred lipids are artficially produced lipids are artficially p
tube hemodynamic stability the ability of a patient to mainrain adequateblood pressure intermittent drip feeding enteral formula administered at specified times throughout the day; generally in smaller volumes and at a slower rate than a bolus feeding but in larger volumes and at a faster rate than continuous feedings lumen the interior areaof a
tube, catheter.or blood vessel monomeric when referring to protein and carbohydrate, the form in which the nutrient has been hydrolyzed into its smaller parts 506 jejunostomyfeedingopeningusedto proneedle-catheter vide small-boreneedleinsertioninto the jejunumat time of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milliosmolesof solute( particles) per liter of surgery osmolaritythe number of milli
solution osmolality the number of milliosmoles of solute (particles) per kilogram of solvent parenteralnutrition provision in the abdominal wall percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the stomachinvolvesusing an endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the stomachinvolvesusing an endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which into the abdominal percutaneous gastrostomy (PEG) feeding tube, endoscopic the insertion of 'which in
jejunostomy(PEJ) feedingrube endoscopic insertedinto the jejunum using an endoscopictechnique peripheralparenteralnutrition(PPN) deliveryof nutrients into a smallerperipheralvein pulmonaryaspirationinadvertentinspirationinto the lungs of body fluids suchasvomitus from the stomach rebound hypoglycemialow blood sugar resulting from abrupt
cessationof total parenteralnutrition solutions refeedingsyndromelow serumlevelsof potassium, magnesium, and phosphoruswirh severe, potentially lethal outcome that resultsfrom the too-rapid infusion of substrates, particularly carbohydrate, into the plasmawith the consequent releaseof insulin and shift of electrolytesinto the
intracellularspaceasglucosemovesinto the cellsfor oxidation and there is reduction in salt and water excretion stoma artificially created opening berweena body cavity and the body'ssurfacethat hashealed transitionalfeeding the processof progressing from one method of nutrition support another oxidation and there is reduction in salt and water excretion stoma artificially created opening berweena body cavity and the processof progressing from one method of nutrition support another oxidation and there is reduction in salt and water excretion stoma artificially created opening berweena body cavity and the processof progressing from one method of nutrition support and the processof progressing from one method of nutrition support and the processof progressing from one method of nutrition support and the processof progressing from one method of nutrition support and the processof progressing from one method of nutrition support and the processof progressing from one method of nutrition support and the processof progressing from one method of nutrition support and the processof progressing from one method of nutrition support and the processof progressing from one method of nutrition support and the processof progressing from one method of nutrition support and the processof progressing from the processof progressing
deliveryof formulatedenteralor parenteral nutrients to appropriate patients for the purpose of maintaining or restoring nutritional status. In this era of vastly expanding scientific knowledge and information about food components, the way the public thinks about food intake for health promotion and disease prevention is changing rapidly. Glycerol is
oxidized and yields 4.3 kcaUg.A 10% emulsion provides 1.1 kcaUml; a 20o/oemulsion provides 2 kcaUml. A comprehensive program of lifestyle modification provides a loss of approximately 10% of initial weight in 16 to 26 weeks, as revealed by a review of recent randomized conuolled rials, including the Diabetes Prevention Program. Body weight
remains remarkably stable despite variations, possibly from internal regulatory mechanisms that are genetically determined. Somestudies updates and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only temporarily and that resting metabolic rate lowers, resulting in body weight can be displaced only the resting metabolic rate lowers.
individual's genetic makeup as it relates to the major tion for makingproteins) and understanding genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select the (the scienceof proteomics);(3) associating genes helps the physician select t
insulin-like growth factor-l (IGF-I) may improve bone BMC and BMD in human subject by increasingbone formation (Rosenand Bilezekian, 2001). Eighty percent of hospiulized patients with for HeartFailure and Transplant 885 CHAPTER 34 i Medical Nutrition Therapy HEAD ANDARMS Superior vena cava Pulmonary artery RIGHT LUNG LEFT LUNG
Pulmonary vein Pulmonary vein Pulmonary valve ATRIUM ATRIUM Tricuspid valve Mitralvalve FIGURE 34-1 Structure of the hean Aorticvalve Pump VENTRICLE LEFTHEART: Receivesorygen-rich bloodfrom the body and pumps it through the aortato the body RIGHTHEART: Receivesorygen-rich bloodfrom the body and pumps it through the pulmonary vein Pulm
lungs, whereit picks up freshorygen Interiorvenacava ^ISt$. BrownJ et al: Nutrition and physical activity during and after cancer treatrrent: an American Cancer Society guide for informed choices, CA CancerJ Clin 53:268,2003. In critically ill patients the best methods for decreasing the risk of aspiration are elevating the head of the bed, continuous
subglottic suctioning and oral decontamination (McClave et al., 2 002; Metheny, 2 002; Metheny, 2 002; McClave et al., 2 002; Metheny, 2 002; 
previous nutrition education regarding type 2 diabetesas evidencedby elevatedpostprandial blood glucose use. The production of the nutrition and oral health habits of infants and young children in Iowa, researchersnoted a 2jo/o incjdence of decay (Levy et al., 2003). As a result, hepatic glucose releaseexceedsthe rise in glucose use. The production of
ultrafiltrate is mainly passive and relies on the perfusion pressure generated by the heart and supplied by the renal artery. If left untreated, the following signs may ensue: dysgeusia (impaired taste); impaired gait, spasticiry contracture; mental signs of irritability, apathy, somnolence, emotional instability, marked confusion, and depression; and
visual impairment. Periodontal disease. Select nutrients, including vitamins A, C, E; folate; B-carotene; and the minerals calcium, phosphorus, and zinc play a role in this disease. Nutrition strategies and other strategies to modilz risk factors for bone loss in osteoporosis also may contribute to reducing the risk of tooth
MedicalNutritionTherapyfor RenalDisorders 933 NutrientRequirements for Adultswith RenalDisease BasedonTypeof Therapy Enety Impaired renal function 30-35kca7kgIBW Hemodialysis 35 kcaUkgtBW Protein Fluid 0.6-1.0 Ad libinm glks IBW Sodlum Potreslum Phosphorus Variable, 2-3 gldey 0.8-1.2 g/day or 8-12 mg/kg IBW r.2 Slkg 750
1000 IBW mUday + 2-3 gldry Variable, usually ad libitum or increased to cover losses with diuretics 2-3 gldayor, to -g/kg IBW 2-4 gldry 3-4 glday 0.8-1.2g/day Variable; may require restriction v/ith cyclosporineinduced hyperkalemia Variable r.2gtdry 30-35 kcaUkgIBW 1. ThmakoshiK et al:JACC StudyGroup: a prospective study of body
sizeand colon cancermortality in Japan: the JACC Study, Int J ObesRelatMetabDisord28:551,2004. What community health and nutririon programs would benefit MB? Kudsk KA: Current aspectsof mucosalimmunology and its influenceby nutrition, Am J Sarg 183:390,2002. One study of children eating either conventional or organic foods found that
after eating organic foods for just 5 days, the levelsof organophosphorouspesticidemetabolites in their urine fell to undetectablelevels. fu the authors state eating organic certainly changed the children's exposure to, if not their risk for, cancersthat may be linked to pesticide exposure (Lu et al., 2006) \displays, the levels of organic certainly changed the children's exposure to, if not their risk for, cancersthat may be linked to pesticide exposure (Lu et al., 2006) \displays, the levels of organic certainly changed the children's exposure to, if not their risk for, cancersthat may be linked to pesticide exposure (Lu et al., 2006) \displays, the levels of organic certainly changed the children's exposure to, if not their risk for, cancersthat may be linked to pesticide exposure (Lu et al., 2006) \displays, the levels of organic certainly changed the children's exposure to, if not their risk for, cancersthat may be linked to pesticide exposure (Lu et al., 2006) \displays, the levels of organic certainly changed the children's exposure to, if not their risk for, cancersthat may be linked to pesticide exposure (Lu et al., 2006) \displays, the levels of organic certainly changed the children's exposure to, if not their risk for, cancersthat may be linked to pesticide exposure to the children's 
may be limited accessto food and water, social disruption, and selfimposed quarantine. All three conby Lactobacilluscaseinand Streptococcus tribute to the processbecausethey metabolize carbohydrates in the mouth, producing acid as a by-product, which is sufficient to causedecay. Another source of nutrient values for common serving sizes of foods
is Bowes and Church's Food Valuesof Portions Com.monlyUsel (Pennington and Douglass, 2004). Parks and Hellerstein (2000) reviewed evidence for the paradoxic rise in serum lipid levels and fall in high-density lipoprotein (HDL) levels after consumption of a diet higher than usual in carbohydrates. Curreri PW: Nutritional replacement modalities, Journal of the paradoxic rise in serum lipid levels and fall in high-density lipoprotein (HDL) levels after consumption of a diet higher than usual in carbohydrates. Curreri PW: Nutritional replacement modalities, Journal of the paradoxic rise in serum lipid levels and fall in high-density lipoprotein (HDL) levels after consumption of a diet higher than usual in carbohydrates.
Thauma 19:904,1979. NADPH, Nicotinamide-adenine dinucleotide phosphate (oxidized form); NADP +, nicotinamide-adenine dinucleotide phosphate (oxidized form). 532 gastracbypassa surgicalprocedurein which the sizeofthe stomachis reduced form).
opening gastroplastya surgical procedure in which the size of the stomach gynoidfat distribution hormone-sensitive lipase (HSL) an enzqe in the adipose cell that is
responsible for the hydrolysis of triglyceride into fatry acids and glycerol, which then leavethe adiposecell and enter the circulation hyperphagiaa periodofovereating hyperphagiaa periodofovereating incretins gastrointestina
hormones that increase the amount of insulin releasedfrom the beta cells of the pancreasafter eating and slow the rate of adipose tissue; includes the skeletalmuscles, water, bone, and a small amount of essential fat in the internal organs, bone marrow; and nerves
 lifestylemodification change in the antecedents, behaviors, and consequences associated with eating habits, exercise, or thinking patterns lipogenesis the conversion of glucose and intermediates into fat lipoproteinlipase (LPL) an enzymeon the luminal side of the capillary that facilitates transport of lipid from the blood into the adipose cell CHAPTER21
Weight Management 533 liposuction aspiration of fat depositsout of the body by means of a smallincisionthrough which a tube is fannedout into the adiposetissue metabolic syndrome (MetS) a condition associated with glucoseintolerance, insulin resistance, hyperlipidemia, and hypertension; sffongly linked to abdominal obesity obesity a state of
 adiposityin which body fanressis above the ideal; a body massindex of 25 to 29.9 or greater sensory-specific satiety a declinein the pleasantness of a food asit is consumed storage fat the fat that accumulates under the skin and around internal organs
underweighta body weight 150/o to 20% below the acceptedweight standard; a body massindex of lessthan 18.5 very low-caloriediet (VLCD) a diet providing 800 kcal or lessper day visceraladiposetissue (WAT) fat accumulationin the intraabdominal (under the peritoneum) cavity white adiposetissue (WAT) repository for triglycerides; a cushionto protect
body organsand an insulatorto preserve body heat yo-yo effect the processof losing and gaining weight is the sum of bone, muscle, organs, body fluids, and adipose tissue. Eventual adult height: 67 in. 489 490 PART3 Nutriton Care Processof losing and gaining weight is the sum of bone, muscle, organs, body fluids, and adipose tissue. Eventual adult height: 67 in. 489 490 PART3 Nutriton Care Processof losing and gaining weight is the sum of bone, muscle, organs, body fluids, and adipose tissue. Eventual adult height: 67 in. 489 490 PART3 Nutriton Care Processof losing and gaining weight is the sum of bone, muscle, organs, body fluids, and adipose tissue.
s s People are motivated to change through their ability to manage their own behaviors. thinkculturalhealth. Exercise Developedby L. o Aim for a normal blood glucoselevel. Rich MW: Office management failure in rhe eldeily, Am J Med 118:342,2005. Because of their LDI-lowering effect, stanols or sterols may be helpfrrl and allow for lower stating
doses (Goldberg et al., 2006; Vorlat, 2003; Wenke, 2005) (seeChapter 32). The the tube in place after every advancement. "Tell me why you picked on the ruler." (Referto previous discussion on the ruler). Ranges representinitial doseto maximum
dose Titration may be indicated, depending on each patient's therapeutic response. Seealso Laborfiory data nutrition, 390-405. Iodine deficienry can cause mental retardation, hypothyroidism, goiter, and varying degrees of other growth and developmental abnormalities. Make sure to check out the section of full HD wallpaper curated for specific
phone models and brands. Alter food and liquid textures accordingly to improve chewing and swallowing capability. The overall 23o/" increase not sugar consumption in recentyears largely a result of an increase not sweetener intake, 45"/" in beverages, 18% in cereal and bakery products, and liTo in confectionary products. Kantor (1998) and Guthrie not sweetener intake, 45"/" in beverages, 18% in cereal and bakery products. Kantor (1998) and Guthrie not sweetener intake, 45"/" in beverages, 18% in cereal and bakery products.
 and Morton (2000) reported that regular soft drinks accountedfor about one third of the approximately 82 g of addedsweetenersper day consumedby Americans 2 yearsand older. Besides blood glucose control, dietary management for people with diabetes after any oral surgeryprocedures and or placement of dentures should include modifications in
the consistency. Examples include omega-3 and omega-6 fatty acids (decreasing the production of bronchoconstrictive leukotrienes), antioxidant nutrients (protecting the airway tissues from oxidative stress), the cation magnesium (a smooth-muscle relaxant and antiinflammatory agent), and methylxanthines such as caffeine (a bronchodilator).
Lactations A striking but ffansient bone loss occurs in women who breast-feed for 6 months or longer, especially from the femoral neck and lumbar spine. a9 8.E \-oE !go c>= OE st 6 bo oo o m f'l Y bo o bo t. What tips about activity will you share with Nell? Patients who are treated and have a decrease in grmptoms are not likely to be permanently
clinically by low body weight for height and reduced triceps fat-fold measurements. Potential interaction with foods. Insulin release also stimulated by gastrointestinalhormones, vag-usnerve activity, and certain drugs (e.g., glucotrol, an oral hypoglycemic agenr). Insulin binds to receptorson muscle and adiposecells and facilitates glucose entry through
specialized, GLUT 4 transporters. Sebastian A: Dietary protein content and the diet'snet acid load: opposing ffectson bone health, Irn J Clin Nutr 82:921, 2005. Chemically defined formulas are as hish as 900 mOsm/L. Jwo notation conventions are used to describe the location of the double bonds Table 3-5. See also Minertls definition, 41 macronutrients,
42-67 amino acids and proteins rc, 59-65. Increasing emphasis is being placed on determining the wayvarious environmental factors influence whether individuals develop diseases to which they are susceptible. What healthy snacksmight Bob have in the evening? Seea/soGestational diabetes mellirus immune-mediated, definition, 765 individuals with
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dideoxyinosine (Videx), nutritional complications, 1002t DIDS (distal intestinal obstruction syndrome), definition, 899 Diet, Nutrition and Cance4318 Diet and Health Knowledge Survey (DHKS), 3t4-3t5 dietaryApproachesto Stop Hypertension (DASH) Diet. Substituting one or two daily meals or snacks with meal replacements is a successful weight
loss and weight maintenance strategy (ADA, 2007). In adults within the normal physical activity index range, the time spent at activity energy expenditure (Westerterp and Plasqui, 2004). (.) h Y E () 0.) 't I r-: I- d d
.H (.) q C] lr X o h Rq) tlr 9= EIJ d q C): FY A'n 90 o. Lowbonemineraldensity . Recendy it was demonstrated that weight loss lowers CRP (Tchernof et al., 2002), which provides another physiologic benefit for weight management as a preventive strategy for CHD reduction. EFA deficiencies may be present, even among patients who are treated
adequately with pancreatic enz', rnesto control malabsorption. Shewill require specialized nutrition support for several months until her body adapts to the shortened bowel. Chewing, swallowing, salivation, and taste acuity are often affected. CotroneoMS et al. Genistein action in the prepubertal mammary 23:1467, gland in a chemoprevention model,
Carcinogenesis 2002. amyotrophiclateralsclerosis SeealsoArnyotrophiclateralsclerosis (ALS) 1090 epilepsyas, 1087-1088, Guillain-Barr6syndromeas, 1092-1093 neurotraumaas, 1096- | 097 Parkinson's diseaseas, 1094-1096 spinaltraumaas, 1097-1098
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value/significance, +17t niuogen balance, 64-65. For example: Client: "I gave up trying to meet my dietary goals because I was having some difficulties when my husband died, and I have decided now that I just cannot meet those strict goals." Nutrition Counselor: "I remember how devastated you were when he died and how just cooking meals was an
effort. Protein obtained from animal sources means that fat, saturated fat, and cholesterol intakes are high. MB is 17 yearsold. Iron, zinc, copper, manganese' and boron may function in bone cells, but their specific roles in preventing bone loss are not well established. In one study the supplementation of several trace elements (copper, fluoride,
manganese, and zinc) along with calcium for I year resulted in a reduced loss of lumbar BMD compared to the greater loss in a control group receiving only calcium Q'{ieves, 2005}. Historically, in institutions where patients required complex and sophisticated nutrition support, nutrition support teams or serviceswere often developed with patient
care provided by a team consisting of physician, dietitian, pharmacist, and nurse specialist. Medical nutrition therapy is the key to improving the quality of life for those individuals who have already developed disease because specific nutrients will be used to alter biochemical outcomes. Good or all hygiene habits are important in reducing the risk of tooth
decay and should be practiced after all meals and snacks. The NSD and a preexisting nasogastrictube (NGT), remove it. Seeafto Niacin nutritional facts, 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison comparison, 519t for premature infants, I 124-1125, ll25t requirements in a dolescent comparison comparison
(Continael) in COPD, 908 in end-stagerenal disease, 943-944 in headinjury 1033 in HfV disease, 1011 in infantswith bronchopulmonary dysplasia, 906 in infantswith bron
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WBC (white blood cell count), reference range/ significance, 416t WC FarmersMarket Nutrition Progtam (FMNP), 324t weaning, from breastor bonle to cup, 2 15 weight-for-length curves, 399 definition, 383 weight(s) birth class if i
c at i o n1. 1 1 8 b. 1 1 1 9 f maternal size and. 163 perinatal mortality and. 163 bone mineral content end.620 carcinogenesis and.963 cycling, in obesiry management, 556 desirable adjustment of, for amputees, 1214 gain factors affecting, 540-541 maternal, 163-164, 164f, 165t imbalance, 538-542, 518f, 539f, 540t, 557-558, 560b in nutrition
assessment, 400 in nutrition care of cancer p^ient, g72 interpretadon, in nutrition assessment, 399, 399b longevity and, 539 loss in AIDS, 1008-1009 in hypertension management, 874 in hypertension p..t..., tion, 870-871, 871t in medical nutrition therapy, for cardiovasculardisease, 859 maintenance of, 554-555 natural aids for, 552b plateau effect in,
555-556 ratelextent, 544 unintentional, 55T-558, 560b maintenance in hean failure, 892-893 in older adulthood, quality of life and, 296-297 management in athletes, 593-599. Laparoscopic or fluoroscopic techniques are used in some facilities and offer alternative options for enteral access Q. (ikolaidis, 2 005; Olivei ru, 2003). Block KI et al: Impact of
antioxidant supplementation on chemotherapeutic eflrcacy; a systematic review of the evidence from randomized controlled ttials, CancerTreat Rea, epublished, May, 2007 (in press). Adipose TissueStructure Adipose tissue is located primarily under the skin, in the ODYWeIGHTGorvrPONENTs mesenteries and omentum, and behind the peritoneum.
Based on the NHANES III survey, the prevalence of high blood pressure in persons with a BMI greater than 30 kglm2 is 42"/" for men and 387" fo
calories from fat, and low-fat diets contain 10'/" to 19% of calcium to bind 100 mg of oxalate) at the same time to reduce oxalate absorption from the higher oxalate-containing foods in the meal (Meschi et a1.,2004; Massey, 2003) (see
EVOL\IE website "Inrervention Tools: Kidney Stones and Oxalate"). Provide clear directions for water requirements. This provided 3060 calories and 124 g of protein per day. Oral cancer, often a result of tobacco and alcohol abuse, can have a significant impact on eating ability and nutrition status. Eggs can also be
combined with meat or milk. Ra c ea n dEt h n i ci ty Whites and fuians suffer more osteoporotic fractures than black and Hispanics, who have a greater bone density (Siris et al, 2001). fPhysical activity level (PAI) is the physical 
regulated by vasopressin, formerly known as antidiuretic hormone, a small peptide hormone secreted by the posterior pituitary. Surgical gastrostomy tubes have virnrally tlle same use as PEGs (Ifitby et al., 1998; Shike and Bloch, 1998). ld Adequate intake APPENDIXES 1299 Iron is a nutrient found in fface amounts in every cell of the body. The roles
of calcium and vitamin D relate to the link between osteoporosis and periodontal disease, in which bone loss is the common denominator. Postmenopausil or estrogen/androgen deficient type t) osteoporosis occursin women within a few years of menopause, and the primarily involves loss of trabecular bone tissue because of a cessation of ovarian production of
estrogens. This can increase iron content up to 30 times. Each classof lipoproteins actually represents continuum of particles. General guidelines for daily requirements in Thble 20-2, for vitamins in Table 20-3, and for trace elements in Thble 20-4. (FNS) Food and Nutrition Service on-line: Nutrition assistance prl
gra, ms, Washington, D C, 2004, USDA, http://www. An example of an opening to generate discussionwith the client follows: "I can see why you're unsure about making new or additional changes in your eating habits. Each class has a different mechanism of action: in the pancreasinsulin secretion is stimulated; at the cellular level (muscle and adipose
tissue) insulin resistanceis decreased, and glucose output is decreased, especially overnight, improving fasting glucose concentrations. Provide clear directions for gradually increasing to the goal feeding rate. Caries
prevention efforts in preschool children include diet modification, water fluoridated areas, and supervised toothbrushing with fluoridated roothpaste (Tinanoff, 2002). Cariogenic foods are rhose that contain fermentable carbohydrates, which, when in contact with microorganisms in the mouth, can cause a drop in
salivary pH to 5.5 or less and stimulate the caries process. Under DSHEA the physiologic effects of a product can be made. Andrassy RJ, Chwals W]: Nutritional support of the pediatric oncology patient, Nutrition 14:124, 1998. 1228 APPENDIXES D. The DV for vitamin E is 15
mg a-TE. Blood supply to dialyzel Fislula (anastomosis ol arlery and vein shunting arterial blood into vein) Loopedgraft Antecubitalvein Dialysis can be accomplished unless the individual's intake of chrornium does not meet the DRI of 20 to 25 mcg/day
(ADA, 2006b). Some species ofmillet and cruciferous vegetables (e.g., cabbage, broccoli, cauliflower, and Brussels sprouts) contain goitrogens; and the soybean isoflavones genistein and daidzein have also been found to inhibit thyroid hormone srrnthesis. Most of these goitrogens are not of clinical importance unless they are consumed in large
amounts or there is coexisting iodine defi ciency. Although CF remains one of the most common lethal genetic disordersprevalent in white persons it is expressed in other population groups swell, o Avoid use of and exposure to baccoproducts. What other factors should be identified as part of your nutritional assessment? Examples include weight
lifting and exercises using resistance-providing machines. 380 PART 3 i Nutrition Careprocess aria is in her early thirties and planning to have a child before too long. Dobson KS: Handbook of cognitiae-bebaaioral therapies, New York, 1998, Guilford Press. Therefore it is a challenge to communicate sensibly and effectively to promote health, relieve
discomfort, and save lives (Robinson, 2002). Following transplantation, many patients exhibit hypophosphatemia and mild hlpercalcemia caused by bone resorption associated by bone resorpt
150 definition, 1'14 in enteral formulas, 514 in major burn management, 1033 m a q n e s i u mas, 151 requirements i n H W d i s e a s e1, 0 1 I during total parenteral nutrition, 519t serum concentration, 150t
reference range and significance of,415t sodium as,150-151 electrolytically reduced iron definition, 739 food, in food allergy diagnosis,750-751,752t ELISA (enzymelinked immunosorbent assay), food
allergy diagnosis, 750t ELSI (ethical, legal, and social implications) definition, 364 of geneticsresearch, 367, 368b embolic stroke, 1079 definition, 1067 Emergency Food and Shelter Program, Emergency Food Assistance (TEFAP), 303, 322t emotions, effects, childhood hunger on, 212b empathy definition, 489 expression, in
facilitating behavior change, 494-495 emphysema, 907 definition, 899 emfficitabine (Emtriva), nutritional complications, 1002 t enamel, definition, 636 encephalopathy hepatic, 7!2. Also recendy, many women have been exploring the use of phytoestrogens and other plant products as
substitutes for estrogens, but these extracts ofnatural products have not been established as being effective in diminishing bone loss by randomized conuclled trials. Gastrointestinalmotility should be assessed becaused arrheacan coexistwith constipation, usually when there is also an impaction. Climt: Ijust feel that my level of enthusiasm for following
the diet is low It all seems like too much effort. Wotecki CE: IntegratedNIIANES: usesin nationalpoliry, J N u t r l 3 l: 5 8 2 S2, 0 0 1 . The adsorbed water makes glycogen a large and cumbersome molecule, unsuitable for long-term energy storage.
and individual nutrients are being studied for possible roles in the etiology or treatment of asthma. It is on thosedaysthat I do very badly in following my diet." Nutrition Counselor: "You just lose the desireto try to eat well on somedaysand that is very depressing for you. Studies on the composition of excessweight gained showed that the LBM of the
body accounts for an average of 29"/" of the excessweight in the obese person (Pierson et al., 1997). SchleithoffSSet al: Vitamin D supplementationimproves cytokine profiles in patients with congesrivehean failure: a double-blind, randornized, placebo-controlledtial, Arn J Clin Nut83:754,2006. Published data on the glycemic indexesof individual foods,
using white bread and glucoseas referencefoods, have been consolidated for the convenience of users. SeeFemales Women, Infants and Children QVTC),32+r knowledge deficit about, 334b X xanthomas definition, 42 from vitamin A deficiency, 73 xerostomra from
chemotherapy,9T\ definition, 286,636,960 dental caries and,642 in older adulthood, 292 medications causing,648b nutritional consequences,647 -6+8 Xers definition, 366 X-linked recessive,definition, 366 X-linked recessive,definition,definiti
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linked inheritance. While a listing of efficacy and safety issue of select supplements is provided in the form of Cochrane databasereviews in this chapter (see Table 18-3), but the listing is somewhat limited. The Healthy Eating Pattern is the template for the DASH eating pattern, with inclusion of t/t to I serving of nuts, seeds, and legumes daily, limited
fats and oils, and use ofnonfat or low-fat milk. Starchesfrom different plant sourcessuch as corn' arrowroot, rice, potatos, tapioca, and other plants are all glucose polymers with the same chemical composition. Another type of peritoneal dialysis is continuorcryclical PD (CCPD). low proximal femur also display (type 2) ocsurs around age 70 Age-
rclatedosteoporosis and beyond, and it affects both sexes; older men are increasingly at risk for hip fractures. Both types of bone tissue, cortical and trabecular, undergo remodeling, but the greater degree of remodeling but the gre
 increases, and triglycerides frequently decreasewithTZD therapy. *Daily values (DVs) are reference nmbers based on the recomended dietary allowmce. Late-1980s: The gene for phenylalaninehydroxylase deficiency (MIII No. 261600) is located on chromosome 12q22-q24.1. Deoxyribonucleic acid mutation analysiscan be accomplished with peripheral
leukocytes. BraamLA et al: \ttamin K1 supplementarionretardsbone lossin posffnenopausal women berween50 and 60 yearcof age, Calcif TusueInt 73:21.2003. This problem is compounded by the increased caloric and nutrient needs of persons with oral carcinomas. Hence the formation of different rypes of fermentation products or the presence of
substances in the food may reduce or enhance the caries-producing action of a sugar. These types of behavior can occur within a counseling session as clients move from one stage to another. Animals including humans can only place double bonds as low as the omega-9 carbon and therefore cannot syrthesize omega-6 and omega-3 fatty acids. Focus
on negative outcome of choices. Addictions of protein intake-high versus lowon bone health can be explained by two distinct metabolic effect on bone resulting from the generation of an acid load. Fatigue is one of the most common
symptoms reported by individuals with cancer and is often characterized as physical tiredness, mental slowness, and lack of emotional resilience. Carbohydrates, protein, fat, fiber, and micronutritient modulescan be added to enteral formulasasa supplement. Ilf,llialrrs JZ et al: Effect of a specialized amino acid mixture on human collagen deposition, Ann
Surg236:369,2002. r urrLuurrdrrry definition, 286 ofolder adults, quaiity oflife and, 296 functions, of vitamin A,, 7 0r, 7 1, 7 lf fundoplications, 43 5 functions, 654 fungal infections, of vitamin A,, 7 0r, 7 1, 7 lf fundoplication, definition, 654 fungal infections, of vitamin A,, 7 0r, 7 1, 7 lf fundoplication, definition, 654 fungal infections, 647 Fuzeon (enfuvirude, T-20, ENF), nutritional complications, 1003t G G6PD (glucose-6-phosphate dehydrogenase), deficiency, food-drug interactions, 43 5 fundoplications, 654 fundoplications, 654 fundoplications, 654 fundoplications, 654 fundoplications, 655 fundoplications, 655 fundoplications, 656 fundoplications, 657 fundoplications, 658 fundopl
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functions, 728 physiology, 728 gallstones, 728-729 gamma glutamyltransferase, serum, reference range/significance, 41 5t 1-tocopherol as oxidative stress marker, 427t gamma-linolenic acid, for rheumatoid arthritis, 1 0 5 5 -1 0 5 6 garcinia cambogia, for weight loss, 552b garlic, supplemental, efficary, reviews, 479t gas exchange, pulmonary system
in, 901 gastrectomy definition, 654 for stomach cancer, 665 gastric acidity, factors, 665b gastric banding, 553, 554f definition, 1117 for infants, I 129 gastric iuice, enzymes in, digestive, 6t gastric lipase in digestion
6 in lipid digestion, 17 gastric ulcers, 662, 66+f de{inition, 654 s;'rnptoms/nutritional consequences, 655t gastno definition, 286,654 in older adulthood, 293 autoimmune, 661 chronic, 661 definition, 654 gastroduodenostomy, Billroth I, 667f gastroenteritis, eosinophilic definition, 739
 elemental diet for, 751 gastroesophageal reflux disease(GERD) definition, 654 medical management, 656, 658 prevalence,655-656 p
gastrointestinal (Gf) antispasmodics, with anticholinergic effects, 443b gastrointestinal (GI) tract, 3,4f changes, in older adulthood, 293 drugs, impact, 442-441, 444b, 445b function, smoking and, 658b in pregnancy, 169-170 lower
 medical nuuition therapy, 673-706 surgery 698-702 lower, disorders colon cancer as, 697-698 constipation as, 67 5-67 7 diarrhea as,677-679 diverticular diseaseas, 696-697, 696f, 697f gas/flatulence x, 674-67 5 gastrointestinal sffictures and obstructions as,680-681 inflammatory bowel diseasesas, 689-695. Then subtract the child's present weight
from the calculated appropriate adult weight. Dried beans and peas are a good source of protein and fiber. The omega-6 fatty acids have also been found to serve as ligands for the peroxisome proliferatoractivated receptor (PPAR) transcription factors. The PPARs function as lipid sensors and regulate lipid and lipoprotein metabolism;
glucose homeostasis; and cell proliferation and differentiation, especially of adipocytes; and the formation of foam cells from monocytes. By 2006 cumulative deaths in the United States from AIDS exceeded530,000, with 5515 of those being children. PasiniE et al: Inadequarenutritional intake for daily life activity of clinically stablepatients with chronic
 heart failure, Am J Card, iol93(strypl):4I A,, 2004. dith is an 80-year-oldwhite woman with HE She was hospitalized with SOB, a weight loss of 10 lb in 3 weeks, and tachycardia. She is 4' 10" and now has BMI of 30. Counseling is a critical step in facilitating nutrition for cliens and includes therapyself-management and theoretical for expertise conveying
strategies it into incorporate client can so that the knowledge life. govlhgmis/project/info.htrnl; Venter et al, 2001). DHEA is supposed to promore weight loss. C H A P T E R3, The N utrient table by
gastrointestinal (GI) enzyrnes, whereas functional fiber refers to nondigestible carbohydratesthat have been extracted or manufactured from plants. Similarly, compromised nutrition satus resulting from poor diet or diseasecan affect the integrity of the oral cavity. Increased tooth loss results in an inadeouate intake of dietary fiber, vitamins, and
minerals (H""i et al., 2003; Sheiham et al., 2001). It is taking the client from where he or she wants to be. However, her continuing low measurementsconcernedher physician, and he ordered laboratory tests of calcium-regulatory hormones to seeif she had any hormonal complications' These tests showed that her Fitt
a.rd 25-hydroxy vitamin D concentrations fell in the upper half of the normal range for eachvariable. Excessive administration can lead to hyperglycemia, hepatic abnormalities, and increased ventilatory drive (see Chapter 35). CHAPTER 44 | MedicalNutritionTherapyfor GeneticMetabolicDisorders LL49 Time Line of Eventsin the Diagnosisand
Tleatrnent of Phenylketonuria 19342A. Most neurologic manifestations of vitamin B12deficienry are associated with the typical macrocltic anemia of pernicious anemia. Biachini I et al: Overweight, obesity, and cancer risk, Lancet Oncol3:565, 2002. o FIF is most often the end point for other cardiovascular diseases, particularly hypeftension and
coronary heart disease. Set broad goals at first and hold more specific nutritional goals until later. Efforts to reduce body weight, widely pursued with varying degreesof enthusiasm and diligence, are often disheartening, making the knowledge presented here so important in nutrition practice. In addition to larger meals, snacksare usually necessarytce.
adequatelyincreasethe energ'yintake. PascoJA et al, Seasonalperiodicity of serumvitamin D and parathyroidhormone, bone resorption, and fractures: the GeelongOsteoporosisStrdy, J BoneMiner Resl9:752,2004. The counselor asksquestions that must be answered by explaining and discussing, not by one-word answers. This is particularly important for
someone who is not ready to change, because to problem areas that keep the client from being ready. in early BayerlC, RiesJ:EARLYSTART:Nutritionseruices Environmental Protection Agency's fishwebsite interuention, Boston, 1995, Department of Public Health. The critical differences for some plasma proteins of nutritional
significance are the following:t Protein Cdtical Dlfference Albumin Prealbumin/transthyrectin 80/" 32% The statistical probability that t"vo consecutive albumin measurements are statistically different requires that the concentration change by 8% or more. When consumed in food and drink, it enters the systemic circulation and is deposited in bones
and teeth. Robinson CA: Enteral nutrition in adult oncology. The key to obtaining vital information that will later dictate treaffnent strategies involves initially establishing a counseling relationship. These individuals are not yet ready to change (Sandoval et al., 1994; Sporny and Contento, lgg5). Engelen MPKJ et al: Altered interorgan response to
feeding in patients with chronic obstructive pulmonary disease: Arn J Clin Nutr 82:366,2005 Farmer G: Nutrition. If the sample group is representative of the reference population, the reference population, the reference population, the reference population are subject to normal
change as a reflection ofgrouth, reproductive status, variation in exercise levels, and the effects of aging. usda.gov, accessed April 16,2007. These differences, or health dispari- Dental caries is an oral infectious diseasein which organic acid metabolites produced by the metabolism of oral microorganisms lead to gradual demineralization of tooth
enamel, followed by rapid proteolytic destruction of fat intake). Considerations egarding the amount of protein that should be given to the patient with ARF must be determined as a fraction of fat intake). Considerations egarding the amount of protein that should be given to the patient with ARF must be determined as a fraction of fat intake).
inability to excrete the fluid, electrolltes, and solute that this treatmentrequires. These patients often can receive continuous renal replacement therapies such as CA\,'H or CWH, which are ongoing treafinents, rather than periodic dialysis. In contrast to plants, animals use carbohydrates primarily to maintain blood glucose concentrations between
feedings. Nutrition Counselor:You are the best judge of what you can do. A toll-free number for contacting the manufacturer in the eventofadversereactions. Many clients fail to notice when their plan is working. When clients express an unwillingness to recognize problems, cooperate, accept responsibility, or take advice, they may be denying a
problem. This method is appropriate for patients who do not tolerate large-volume infusions during a given feeding such as those occurring with bolus or intermittent methods. PopularCommercial DietPrograms Name Foodsor Products Education Teachersr/Gounselors Maintenance MDs, health educators, registered nurses, RDs, exercise physiologists and the second products are considered in the second products and the second products are considered in the second product are considered in the second products are considered in the second products are considered in the second products are considered in the second product are considered in
Weekly meetings for 18 mo Supervisedby MDs Weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th week Maintenance: weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th week Maintenance: weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th week Maintenance: weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th week Maintenance: weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th week Maintenance: weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th weekly meetings for 5 mo MDs, registered nurses, RDs, and psychologisa at most locations No time limit, begins at 20th weekly meetings for 5 mo MDs, registered nurses, RDs, and RDs, and
Resources(I{MR) www.yourbetterhealth. The important consequenceof hypercholesterolemia lies in the potential for inducing cardiovasculardisease. Pediatric patients with frequendy relapsing or resistant nephrotic slmdrome are at particular risk for premanrre Certain lipid-lowering agents in combinaatherosclerosis. Hunger is associated with the
 postabsorptive state when those stores are being mobilized. Kauwell GP et al: Folatestatusof elderlywomen following moderatefolate depletionrespondsonly to a higher folate 2000b' intake, JNutr 130:1584, Kim YS, Milner JA: Nutritional genomicsand proteomicsin cancerprevention. Proceedings of a conference, September 5-6, 2002, Bethesda, Md, J Natr
133:2i995, 2003Kornman KS et al: Geneticvariations inflammation: a practical nutrigenomic soppornrnity Nu*ition 20:44,2004. Alendronate may be used in combination with a selective estrogen receptor modulator (SERM) (see paragraph that follows) or another boneconserving drug in an effort to protect the skeleton. Another misconception is
that exercise is counterproductive because it increases the desire to eat. Appel LF et al: Effects of protein, monounsaturated fat, and carbohydrate intake on blood pressure and serum lipids: results from the OmniHeart randomized nial, JAMA 294:2455, 2005. What are appropriate diet counseling recommendations for this patient? for Ghange 505
Counseling 19 I Intervention: CHAPTER Prochaska JO et al: In searchof how peoplechange, Am Psychol 47:1102,1992. How would you counselMatthew? fu for the general public, peoplewith diabetesare encouragedto choosea variety of fiber-containing foods such as legumes, fiber-rich cereals (>5 g of fiber per serving), fruits, vegetables, and whole
grain products. However, evidence is lacking to recommend a higher fiber intake for peoplewith diabetesthan for the populationasa whole (ADA, 2007). p/ari infection, gastritis, the use of aspirin and other NSAIDs, corticosteroids (see Pathophryiolag and Care Manngmmt Algarithm: Peptic I-Ilcer), and stress (so-called stress-induced ulcers). Surgery
 often necessitatestemporary or permanent reliance on enteral nutrition, including percutaneous endoscopic gastrostomy or nasogastric tube feedings (see Chapter 20). A good diet plus exercise from roughly ages 10 to 20 years is particularly important for skeletal growth, including the accrual of bone massand increased femoral bone dimensions
(Iuliano-Burns et al., 2005). The challenge to clinicians is to maintain adequate feeding to meet nutritional requirements throughout the uansition period. I, {utr Clin Pract 13:186,1998. Deaths of adults and adolescens with AIDS in the United States have declined dramatically witlincreased use of antiretroviral therapy (ART) and treatment of OIs. The
largest source of public health funding for HIV/ AIDS care in the United States is through Medicaid, followed by Medicare and then the Ryan White Comprehensive AIDS ResourcesEmergency (CARE) Act funding (Kaiser Family Foundation, 2006). Preparation: The preparation stage is a window of oppomentity that either allows the patient to move
forward or fall back into contemplation. Meals should be at scheduledhours instead of hastily planned and quickly eaten. Becausenervoustension often contributes of through 8 for information on determining children's nutritional needs. fuymptomatic HfV is the next stage in
which few; if any, noticeable s). The measure of potency or functional use in the body. SchwartzM, \4ssing I Med347:576,2002. SpindlerSR: Rapid and reversible induction of the longevity
anticancerand genomiceffects of caloricrestriction, FoodAddit Contam 126(9):96Q,2005. It is usually more effective to move from continuous feeding to a 12- and then an 8-hour formula administration cycle during the night. Sodiumrestriction Algorithm contentdevelopedby John J.B. Anderson, PhD, and Sanford C. Omenn GS et al: Effects of a
combination of B-carotene and vitamin A on lung cancer and cardiovascular disease, N Engl J Med 334:1150,1996. Houston MC: Nutraceuticals, vitamins, antioxidans, and mineralsin the preventionand treatment of hydrogen have been removed, and double bonds form
 between adjacent carbons. fibers, bulking agents, probiotics, and antidiarrhealmedications canalsobe beneficial. The renal pelvis narrows into a single ureter per kidney, and each ureter carries urine into the bladder, where it accumulates before elimination. The patient with normal gastric function can usually tolerate 500 ml of formula at each feeding
SeeAnorexia nervosa anabolic effects definition, 587 of steroids, 609 anabolic hormones, nutritional support in metabolic stressand, 1032 anaerobic glycolysis, 588 anaerobic metabolic reactton, 742t anaphylaxis definition, 719 food-induced, 741-744
androgenic effects definidon, 587 ofsteroids, 609,609b androgen replacement therapy for osteoporosis, 63r androidobesity,541 muscle-buildingsupplements, androstenedione, 608 anemia(s) aplastic,818-819 definition,810 of, 421-422 classification 828 copper-deficiency, definition,810 folic acid deficiency,823-827 hemolltic 1117 definition,810, in
prematureinfant, 1128 hlpochromic microcy'ticffansient, 829 813-816. However, in other studies when energy intake is reduced, the adverse effects of high-carbohydrate diets are not observed (Heilbronn et al., 1999; Parker et al., 2002). nutrition therapyfor diabeies. Candidiasis on the tong'ue, palate, or esophagrrs can make chewing, sucking, and
swallowing painful (odynophagia), thus compromising intake. Cariogenicity refers to the caries-promoting properties of a diet or food, and the cariogenicity ofa food varies, depending on the form in which it occurs, its nutrient composition, when it is eaten in relation to other foods and fluids, the duration of its exposure to the tooth, and the frequency
with which it is eaten (seeBox 25-1). Kittler PG, SucherKP: Food. maintained over it is more difficult to lose. Milk or milk-related foods can be eaten immediately before a meal but not with a meal. It has been estimated that if all human energy stores were glycogen, humans would need to weigh 60 additional pounds (Nberts et al., 2002). Components of
Nutrition Assessment for Adults With Chronic ObstructivePulmonary Disease Hletodcal Medical history Nutritional hirtory Usual weight Height Skin-fold measurern€nts Hemoglobin and hematocrit values Serum electrolytes
Serum prot£ins Mditional biochemical tests es needed (e.g., immunologic testing, creatinine height index, nitrogen balance) Dkt Hlstory Usual home diet Use of supplemens Where meals are eaten Social companionship with meals ErMrcnmental Home facilities Physical abilities Financial resources M e d i c aNl u t r i t i o T n herapy Assessment Each
person with COPD must be assessed individually on a continuous basis. "What do you plan to do between now and the next visit?" . Chemically, bisphosphonates resemble pyrophosphate, which is present at the surfaces of bone crystals. MultiCare Health Systems. 'fhcoma.Wa. 526 PART3 NutritionCareProcess First Decision Point The Beneficiary's Part
D Plan'snetwork includes a home infusionoroviderthat can (1) deliverthe Part D home infusiondrug, and (2) provideprotessionalservices and Palliative Care Organization QTiHPCO): Wat is hospice?from http://wwwnhpco.org, accessedMay 30, 2006.
anice is a 55-year-old mother of four. Anker SD et al: Hormonal changes and catabolic/anabolic imbalance in chronic hean failure and their importance for cardiac cachexia, Circulation 96:526, 1997t Anker SD et al: Loss of bone mineral in patiens with cachexia due to chronic hean failure, Am J Med L03:L97, 1997b. The ADA also recommends that, to
improve glycemic control, assistwith weight maintenance, and reducerisk of CVD, at least 150 min/week of moderate-intensity aerobicexercise (>70% of maximum heart rate) is recommended. The physical activity should be distributed over at least 3 days/
week and with no more than 2 consecutivedayswithout physical activity. What can others do to help? post-menopausal and Walsh MC et al: Sarcopenian premenopausal women with osteopenia, osteopenia, osteopenia, osteopenia, osteopenia and walsh MC et al: Sarcopenia and walsh MC et a
forget that she has type 2 diabetes. Jared has developed central obesity, hlpertension, and problems with blood sugar regulation. DietAssoc Eberhart LHJ et al: Ginger doesnot preventpostoperative nauseaand
vomiring after laparoscopicsurgeryAnesthAnalg 96:995,2Q03. Further confounding the nomenclature is the concept of penetrance. Sheehan PM: Nutrition support of blood or marrow transplant recipients: how much do we really know? $Body massindex (BMI) is determined by dividing the weight (in kilograms) by the squareof the height (in meters).
Among the issuesbeing addressedare: (1) ways to ensure that genetic information about an individual will be used fairly and that the individual will be protected; (2) the best ways to implement genetic technologies into the practice of health care to ensure more targeted therapy with increased benefits and decreasedside effects; (3) ways to
handle the many developing ethical issues; and (4) the best ways to educate health care professionalsso that they can meet the growing demand for genetics is characterized by alterations to the DNA molecule that affect gene expression but do not change the nucleotide sequence (Egger et a1., 2004; Holliday, 2005;
Santos et al., 2005). 1222 APPENDIXES Activtty Type Tieadmill, run 7 mph, 8.5 min/mile, 4% incline 8 mph, 7.5 min/mile, 6% inc
incline 3 mph, 20 min/mile, 6% incline 4 mph, 15 min/mile, 6% 
with aging and menopause or gonadectomy, there is a tendency to increase central obesity (Mayes and Watson, 2004). The medianageof patients about 42%. Although objective laboratory data are extremely
 important resources in nutrition assessment, one should be extremely cautious about using a single isolated laboratory test value to make an assessment. One value is often misleading, especially when taken out ofthe context of an individual's habits, clinical status, and dietary and medical histories. Most patients with a variety of clinical conditions
tolerate standard formulas intended to meet the nutritional requirements of general patient populations. Bacteria are an essential part of the decay process. Several microorganisms are capable of fermenting dietary carbohydrates. Animal models and clinical observations in
humans during enteral and parenteral nutrition support have focused on several perceived advantagesofusing enteral as opposed to parenteral nutrition in critical care settings: better gastrointestinal tract. Unfortunately
BMD of the hip (proximal femur) does not increase much, although it does not decrease. The counselor might ask the question: "What would need to be different to move forward?" This stage is characterized by feelings of ambivalence. MendozaC et al: Reversalof refractorycongestivehean failure after thiamine supplementation:report of a caseand
reviewof the literature, J Cardiwav Pharntacol Ttter 8:313,2003. phosphorus, and vitamin D metabolism. Otherdrugs - to suppress aberrant behavior - to aiddisturbed sleep Nutritionsupport offset: . Organizational structure at the institutional level is necessary for the quality, safery and cost-effectivenessof nutrition support. Insulin is secreted and
binds to its receptor on the surface of skeletal muscle cells and initiates a stepwise biochemical signaling cascadethat causesthe translocation of GLUT 4, the receptor that admits glucose into muscle cells. Milk, as a liquid, reduces the adherence capability of the fruit. Most formulas/medical foods contain calcium. They were developed to help
Counselor:Look at the progress you have made in 6 months. 5f4 PART3 NutritionGareprocess Vit a min sM, in eralls, and Electrolytes Most but not all available formulas are designed to meet the dietary reference intakes (DRIs) for vitamins and minerals if a sufficient volume is taken. HagbergJM et al: APO E geneand gene
 environmenteffectson Genomrcs 4:101,2000. Expression of the CF geneis largely restricted to epithelial cells. Almost all exocrineglands and ducts in various organs. The clinical features are dominated by involvement of the respiratory u?ct, sweat and salivary glands
intestine, pancreas, liver, and reproductive tract. SeeEnd-stage renal disease essential amino acids definition, 40 ergogenic aid, 604t, 606 essential fatty acids, 52-55 definition, 338 estimated energy essential amino acids definition, 40 ergogenic aid, 604t, 606 essential fatty acids, 52-55 definition, 338 estimated energy essential fatty acids, 52-55 definition, 40 ergogenic aid, 604t, 606 essential fatty acids, 52-55 definition, 532 essential fatty acids, 52-55 definition, 40 ergogenic aid, 604t, 606 essential fatty acids, 52-55 definition, 532 essential fatty acids, 52-55 definition, 52-55 definition, 52-55 definition, 52-55 definition, 52-55 definition, 52-55 definition, 52-55 defi
requirement (EER), 29 definition, 22 estimated safe and adequate daily dietary intakes (ESADDD,339 definition, 615 estrogen receptor (ER), definition, 614 estrogen receptor modulator, selective, definition, 615 estrogen replacement therapy
the question, providing no response to a question, or changing the direction of the conversation. Malabsorption is another complication of gasuic surgery; deficienry of iron, folate, and less commonly vitamin B12can lead to anemia. National Center for Health Statistics fNCHS): National Health and Nutrition Examination Survey (I\IHANES) research
proposal guidelines, 2005b, . Primary prevention applies to individuals who have no osteoporotic disease, typically adults before age 50. fu a change facilitator, the counselor helps to tip the balance away from being ambivalent about change facilitator, the counselor helps to tip the balance away from being ambivalent about change facilitator, the counselor helps to tip the balance away from being ambivalent about change facilitator.
anticipating the difficulties as well as the advantages. KraussRIVIet al: Dietary guidelinesrevision200/Jta statement for healthcareprofessionals from the Nunition Committee of the AmericanHean fusociadon, Circulation102:2284,2C[l0. Notice The Publisher International Standard Book Number 978-0-8089-2378-7 Aequisitians Edinr: Yvonne
Alexopoulos Managing Ed.itor: Kristin Hebberd AssoeiateDnelopmental Ed.iror: Heather Bays ' Putrlishing SeruicesManager: Cheryl Al:bott Design Direaion; Amy Buxton Coar Art: Dennis Kunkel Microscopy, Inc. Low levelsof other rather than relianceon manufacturedpharmaceuticals, peominerals such as calcium
magnesium, phosphorus, and ple usebotanicalsto treat respiratoryailmens. RateandExtentof Weight Loss Reduction of body weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of both protein and fat, in amounts determined to some degree by the rate of weight involves the loss of the
escalate. This "unsure" stage a transition from not being ready to deal with a problem eating behavior to preparing to continue the change your eating habits. Marshall a transition from not being ready to deal with a problem eating behavior to preparing to continue the change your eating habits. Marshall a transition from not being ready to deal with a problem eating habits. Marshall a transition from not being ready to deal with a problem eating habits. Marshall a transition from not being ready to deal with a problem eating habits.
and Ito developed the original operation in the late 1960s(Mason and Ito, 1969). SInthesized Bulking agent or sugar substitute Extracted from psyllium Reducesserum cholesterol "Isolated or extracted. Sommerfieldt Hyatt WR: Omega-3fatty acidsfor intermittent
claudication, Cochrane DatabaseSystReu, CD001833,2004. A subcutaneous tunnel is created so that the catheter exits the skin several inches away from its venous enuy site. "I'd like to see if you have made any changes or had any further thoughts on meeting your saturated fatintake goals." To make the stagesof change model less complicated, and
alternative is to view the stagesin terms of three phases: Stage 1: Not ready to change To identif in which of these three stagesa patient is, it is important to assessthe patient's situation (Figure 19-2). Maskarinec G: Soy foods for breast cancer survivors and women at high risk for breast
cancer, J Am Diet Assoc105:1524,2005. @rom U.S. Department of Energ; Human GenomeProgram: www.ornl.goa/bgmis.) DNAGeneticCodeDictatesAminoAcid Identityand Order DNA sequence ls ccr rcr crA rrA ACA sF 12345chain nJl3,," code ?',:iJl". From a practical perspective, persons being treated for gastritis and peptic ulcer disease may be
advised to avoid the excessiveuse of specific spices, alcohol, and coffee @oth caffeinated and decaffeinated and decaffeinated and decaffeinated and decaffeinated and to consume a nutritionally complete diet with adequate dietary fiber from fruits and vegetables (RyanHarshman and Aldoori, 2004). Thble 35-3 summarizes thre recommendations for vitamin supplementation in CF during childhood and
 adolescence. This regimen should be adjusted based on routine monitoring of the individual. Vasodilators 'Implantable defibrillator and the tube from collapsing (see Nna Direaions: Dietitians Placing Enteral Feeding Tubes).
Lyingdownaftermeals. The ability to store and use large amounts of fat enableshumans ro suryive without food for weeks and sometimes months. Ziegler TR et al: Effecs of glutaminesupplementation: a pilot study, Am J Med Sci315:4,1998. OtherDrugTreatments These treafinent options are
 less used for the prevention or treafinent of osteoporosis, but each one may be effective under special conditions or in certain individuals. J Gerontol MattisonJA et al: Calorie restriction in rhesusmonkeys, Esp Gerontol 38:15,2003. Brief episodesof decreasedorygen saturation are thought to occur frequency in infants with BPD, especially during
feeding. Without an additional source of fluid, tube-fed patients may not get enough free water to meet their needs, particularly when concentrated formulas are used. Among those with nausea unassociated with emesis, a trial of ginger may be indicated; patients with emesis and weight loss should receive more potent prescriptive medications. In
peptic ulcer diseaseindependent ofinfection, suppression of acid with proton pump inhibitors or Fl2-receptor blockers is the primary treafinent. consumerlab.com,/results,/calcium.asp Menopause http://www. She akes several cardiacmedications,none ofwhich shecan remember.Fler blood pressure is 160/90,sheis 5 ft 4 in, and sheweighs 195lb.
CF gene, locatedon chromosome protein 7q (the long arm), encodesa membrane-associated termed the CF transnmtbranercgulatedchloride channeland appearsto regulatechloride and sodium transport acrossapical membranesof epithelial cells. Over
 1400mutationshave been identified (seeCh"pter l3). Most starch choices are good sources of B vitamins. An excess of relative body water, indicated by a fall in osmolality, leads to prompt shut-off of all vasopressin secretion. What implications are there for the use of saw palmetto? It can be difficult to digest and causesgas in some people. Box 20-5 lists
complications that can occur with parenteral nutrition. Wine contains resveratrol, an antifungal compound in grape skins that has been associated with an ll"/" to 1670 increase in HDL cholesterol and 8"/" to 15"/" reduction in fibrinogen (Flansen et al., 2005) The French may experience lower rates of CVD, despite a highfat diet, because of their
consumption of red wine: "the French paradox" (Sun et a1.,2002)(seeChapter 12). Ischemicstroke Transientischemia, gangrene, necrosrs FIGURE 32-4 Major clinical manifestations of atherothrombotic disease. (/iles-GonzalezJF et al., 2002) (seeChapter 12). Ischemicstroke Transientischemia, gangrene, necrosrs FIGURE 32-4 Major clinical manifestations of atherothrombotic disease.
Atherothrombosis: a widespreaddiseasewith unpredictable and Eur Heart J 2 5: 119 7, 2001.) life-threatening consequences, B l o o dL i p i d sa n dL i p o p r o t e i n s Blood lipids (cholesterollevels' including age; dietshigh in fat'
saturatedfat, and cholesterol 838 PART5 | MedicalNutritionTherapy Gharacteristics Density, g/ml Electrophoreticmobility Origin Chylomicron 240 mg/dl) fellto lTTo, whichis below rheHealby People 2010 goal (Healby People 2010, 2000). Increasing physical activity is also
important. Linxian Nutrition Intervention Tiials Srudy Group, Cancer Res54(suppl):2029S, 1994. Exercise regimens at an intensity of 50o/"to 80% Vo2^* three to four times a week for 30 to 60 minutes a session can result in a 107" to 20Y" baseline improvement in AlC and are most beneficial in persons with mild type 2 diabetes and in those who are
 likely to be the most insulin resistant. s 0~0~7 (f u 1:g u aT 'uonetxnrB louuJ|pugotna111 IIel I uI slcaJePPueJuIz lurues g-eEauro;o ot petelerare sprrlele; parernresun-.l100 yera.l2 lurues l3 lurues l4 lurues l5 lurues l6 lurues l8 lurues l9 lurues l9
 'sarcuarcgap uru?trl pue uorl: CC ruoJtspurl'tr11uortspunl '900Z'5:(I)6I 1oroutrutld |ltFadounruru1 f tu1'tueuncarl: f11secnl pue srseuaSogled; o sldacuocrneu-rrSledurorqrg(srtrrqtre 'IO0Z '8Z6ZO0CI,(I) aay rtg asoqr4u1l auotqroJ proteunaqr Surrearlro; ,{dereqrIeqreH: J suosred'J eprlT '1661 'tlL,gZ unaq[ flilrquv uluas'aurzrpo8 rapunrp:sr]rrrpro
proteunagr roJ tueuneert, traulenuetodV:-D( oEJ 'Ed f{sdtt '1er.n '5002'ZtIZ pelloluoc ryr4 f u113 pezruopueJe :erSledurorgg Jo tuarutearteql ur uorlelr1lqeqeJ LreuqdrcsrpnlmrrJo sseuelnreJJe t:lsural er{J :4111qsudzslg '1y'g . Finally, cryptogeniccirrhosisis any cirrhosisfor which the etiologyis unknown. Some manufacturers cool oil and filter out
Ctin Gastroenterol 35:209,2001. In societieswhere malnutrition and periodontal diseaseare prevalent, poor oral hygiene is also usually evident. pylori complications Algorithm contentdevelopedbyJohnJ.B. Arderson, PhD, and SanfordC. These guidelines would seem to make the selection cjf the best type of nutrition support an easy decision; however,
this is not always the case. For example, not all access methods reviewed here are universally available in all health care settings. .2. Interviewing The purpose of the client interviewing to obtain information. The intent of the guidelines is to provide evidence for the effects of treatment on overweight and obesity. Weight-bearing exercise may decrease
the rate of loss of BMD of postrnenopausal as well as older women if the acflyrtres are age appropnate. The site of plaqueformationor atherogenesis is the endothelium in the artery wall. The incidence prematured prematured is ease appropriate are age appropriate. The site of plaqueformation at the contract of the same age. Therefore being older than 45 years of age is three times as high as the incidence of prematured is ease appropriate.
age is considered risk factor for men Qr{CEP,2002). SchoellerDA: How accurate self-reported dietary energy intake? Nun Rea48:373,1990. van Gils CH et al: Consumption of vegetables and fruits and risk of breast cancer, JAMA 293:183, 2005. For example, potassium compromiserespiratory muscle function at the herbal remedies to treat
symptomatically the cough from cellular level. Wernicke's encephalopathy is responsive to thiamin, whereas Korsakoff's psychosis is not; the mental derangements precipitated by Korsakoffs psychosis are irreversible. The prevalence of diabetes mirrors that of obesity in the United States. The skeleton serves as a buffer to help regulate acid-base
balance, and a high-acid diet may contribute to the progressive decline in bone mass and osteoporosis(Tircker et al., 2001; Sebastian, 2005) (see Clinical Insight: Acid fuh and Alkaline fuh Diets in Chapter 36). Go to the home website and use a searchto find the document. IsJaniceather ideal bodyweight? Pluijm SMF et al: Determinantsof bone mineral
densityin older men and women: body composition as a mediator, J Bone Miner Res16:2142,2001. Growth hormone . Some fat deposits are not used effectively during a fast and are classified as strumtral far. For prealbumin, an increase from 30 mg/dl to 39.6 ng/dl would be significant. rBelc ot elqBun:xu&eqd uI uoFueler ereAo$ r:3uao11otaqtlo
a,ntaro aul uqtqxafuW q 0d [uV aytnlol0I selJualslsuoJollll rpr r uoDeJIdsBJo sglJuetsrsuoJeJolu Jo o ll qrrrn qSnoc tnorflr \ spror lero^ atp Jo le^el atft ol uonerlauad den:ry . Coffeeandcaffeine Increaseintakeof n-3andn-6fattyacids, which may have a protective effect GoodnutritionhelpsdefendagarnstH. Figure 13-2 highlights the complex process of DNA
replication required to faithfully duplicate each DNA base pair when synthesizing new strands of DNA for each new cell. When energy equations are used for predictions, increases for physiologic stress must be included. Furthermore, because numeric values do not themselves connote personal judgment, this kind of data can often be passed on ro
patient or client without implicit or perceived blame. suorsrJep 'sseru e{Btu stueEed pue suercrs,tqd sdlaq uor} errtJoJur srr{J ouoq sesol pue tuerJgep uoSorlse .,(lSurseercur souoJeq FnpI ryur eql se stuerueJnseelutuenbesqns JoJ eurleseq e sEselJes(ruarcgepueSorlseSunuoreq aro;eq) asnedoueur Surrelue uBruo,tr {srJ-t? Prompt and
appropriatenutritional managementmay help to improve patients'toleranceof treatment, minimize nutrition impact symptoms, and maximize quality of life. ,gt ' ,]uauqeert r,r,tlq5 gg7 pue Z00Z 59 urnrsfq4 xauCMV L1OZ'6 p.rdypesseece'Sro'srrrrque 'sutuoilapuavuarua1 uoDBnlEAe :saruorpuds an5ne;cruo.rq] :s nuErunDJql,a 3rer3 dfuu'[opoln1uq1a continue] is nuErunDJql,a 3rer3 dfuu'[opo
tV:uonepunoCsplrtlrrv .I00Z,Z9l 'tStp xunaq[s.u4quv L00Z'6 prdy pesseroe,3ro.srtr.rqlre.,tr,tur. of alcoholism. the benefit of this type of surgery besidescosnietic,may be asa "cFtoreductivesurgery"in which metabolicallydamaging adiposetissuewith all is associated disease-promoting activity is actuallyremoved, much as a tumor might be
removed(Dizdar and Alyamac, 2004). Typically one nucleotide is substituted for another, or a nucleotide is added to or deleted from the DNA sequence, but larger-scale changes involving the deletion or addition of multiple nucleotides can also occur. Metoclopramide Anabolic Agents . (GVHD) Graft-Versus-Host Disease Graft-versus-host
 disease(GVHD)is a major complication seen primarily after allogeneic transplants, in which the donor stem cells react against the tissuesof the "foreign" host. The functions seen primarily after allogeneic transplants, in which the donor stem cells react against the tissuesof the "foreign" host. The functions of severaltarget organs (skin, liveq gut, lymphoid cells) are disrupted, and susceptibility to infection is increased. Acute G\IHD is usually manifested within the first 100 days after the same than the same than the first 100 days after the same than the sa
transplantand may be seen as early as 7 to 10 daysposttransplant. It may resolve, or it may develop into a chronic form that requireslong-term treaffnent and dietarymanagement. Skin GVHD is characterized by a maculopapular ash. GVHD is characterized by a maculopapular ash. GVHD and develop into a chronic form that requires and abnormal liver function tests, often accompanies gastrointestinal GVHD and develop into a chronic form that requires and abnormal liver function tests, often accompanies gastrointestinal GVHD and develop into a chronic form that requires and abnormal liver function tests, often accompanies gastrointestinal GVHD and develop into a chronic form that requires and abnormal liver function tests, often accompanies gastrointestinal GVHD and develop into a chronic form that requires and abnormal liver function tests, often accompanies gastrointestinal GVHD and develop into a chronic form that requires and abnormal liver function tests, often accompanies gastrointestinal GVHD and develop into a chronic form that requires and abnormal liver function tests.
further complicates nutrition management. Routine supplementation with antioxidants such as vitamins E and C and B-carotene is not advised because offectiveness and concern related to long-term safety (ADA,2007). At least 150/oto 200/oof the total calories consumed as proteins or the appropriate DRI for protein for the
individual'sgender, age, and height is suggested. In the presence of metabolic instability, the more inrensive monitoring outlined under initial period-should be foilowed. In Merritt R: The ASPEN nutrition, 1998. M edicalNutr ition Ther apy Nuuitional suggested. In the presence of metabolic instability, the more inrensive monitoring outlined under initial period-should be foilowed. In Merritt R: The ASPEN nutrition, 1998. M edicalNutr ition Ther apy Nuuitional suggested.
care in ARF is particularly important because the patient not only has uremia, metabolic acidosis, and fluid and electrolyte imbalance but also usually suffers from 926 PART5: MedicalNutritionTherapy physiologicstress(e.g., infection or tissuedestruction) that increases protein needs. The problemof balancing protein and energy needs with treatment of the care in t
 acidosisand excessive nitrogenouswasteis complicatedand delicate. In the early stagesof ARF the patient is often moribund and unable to eat. Early attention to nutrition status-often in the form of total parenteralnutrition (TP|Q and early dialysis-positively affecs patient survival. Monality in ARF is high, especially among those who
 aremalnourished(Strejc, 2005). Hypoglycemia has been reported to be more common after exercise, especially exercise oflong duration, strenuous activity or play, or sporadic exercise fibrosis in adults: a review, Aust Radiol 48:450, 20M. Solid foods
such as crackers, chips, pretzels, dry cereals, and cookies can stick between the teeth (referred to as the interproximal spaces) and have high adherence (or retention) capability. govlfns, accessedDecember l, 2005. Six months ago she weighed 165 lb. Also important in the control of the Nutrition Therapy for RenalDisorders929 CHAPTER 36 1 Medica.
Stages of Chronic Kidney Disease Stage I 2 t + 5 GFR Description 90-110mVmin 60-89mVmin 15-29mUmin Lessthan 15mVmin Kidtr.y damage, but normal to increased kidney function Mild decrease in kidney fu
 stagerenal disease progressionof renal failure in peoplewith diabetesis good blood glucosecontrol. As a result, a frequent dosing schedule is required with meals, postprandial glucose excursions are less, and becauseless insulin is secreted several hours after a meal, there is a decreased risk of hypoglycemia between meals and overnight. Individuals
with gastrointestinal s). Thptoms may require dietary modifications of lactose, fat, and fiber content, as well as alterations in texture. Pneumonia r Pneumonia r Pneumonia r Pneumonia r Pneumonia r Pneumonia, recurrent o Progressivemultifocal leukoencephalopathy.
that diets with protein conrents greater than 200/" of total energy may improve glucose and insulin concentrations, reduce appetite, and improve satiety (Gannon et al., 2003; Gannon et al., 2004). Parenteralnutrition was staned on postoperative day2 in the ICU via the IJ catheter becausethe surgeonswere concerned that the small bowel was not yet
functional, although there was no abdominal distention. Positive habits should be encouraged, including snacking on anticariogenic or cariostatic foods, chewing sugarlessgum after eating or drinking cariogenic items, and having sweetswith meals rather than as snacks. Despite the potential for a diet that is basedon the dietary guidelines to be
cariogenic, with proper planning and good oral hygiene a balanced diet low in cariogenic risk can be planned. In heart failure (FIF), the heart cannot provide adequateblood flow to the rest of the body, causing symproms of fatigue, shortness of breath (dyspnea), and fluid retention (FIrrnt et al., 2005). Malourf M et al: Folic acidwith or without viamin
B12for DatabaseSystRea, cognition and dementia, Cochrane cD004514,2003. Pramlintide (Sgnlin) is a synthetic form of amylin, a hormone normally co-secreted with insulin by the B-cells in response to food intake and deficient in people with type I and type 2 diabetes. The antioxidant properties of selenoproteins prevent cellular damage from free
radicals. The dextrose monohydrate yields 3.4 calories per gram. 1992. Circumstances that require the use of insulin in type 2 diabetes include the failure to achieve adequate control with administration of oral medications; periods of acute injury infection, or surgery; pregnancy; and allergy or serious reactions to sulfonylurea agents. L6Z r67 862 z0t
Lf.t LSf. ZLT sri n€n (Ftul run!clec c I 'PeuuBJrsuBaqPar+au ard qcur-6;o s4 'erd ur4durn4 c 1 'peqooc'qceurdg zo 1 'aseaqcrupper{J c 1 'palooc'qreqnqg r pe{oor'suaar8 dt-ot.J I zo 1 'eseaqJzuoJrx c 1 'paqooc 'suaer8 prBIIoJ zo E
 'parnerp '10 ur 'seurprug c y 'urr4sued 'un5o;1 dnt z4'nln3er'ryoJ uotlrod/pool spool palcalasur un!3lEc gz9 qltpaHauogpupuorilrpN i UZUffaVUC 'ssol auoq ur stlnseJ 'e>lBlur urluell^,{\ol e perrulf erp ur sJolB5rlsa^urc unuBlr Jo snsuesuoJ e'a1ul c 'HId uruesJo uont^ele -ur alenbapeur ro sruor{dsoqd aJuel?^erd Surseercul sltp Jo esneJag e dq q8lc
pacnpul Jo 'pa, {sl '(1002''V re uE ar {r suoddns tegt qcJ \eso] pue ldecuoc tsoru lcocqrel)., {ep rad nI000'0I -qBtse ueeq ser { r{rnru se aq deu qcrqn 'luarsalddns tegt qcJ \eso] pue ldecuoc tsoru lcocqrel)., {ep rad nI000'0I -qBtse ueeq ser { r{rnru se aq deu qcrqn 'luarsalddns tegt qcJ \eso] pue ldecuoc tsoru lcocqrel)., {ep rad nI000'0I -qBtse ueeq ser { r{rnru se aq deu qcrqn 'luarsalddns tegt qcJ \eso] pue ldecuoc tsoru lcocqrel)., {ep rad nI000'0I -qBtse ueeq ser { r{rnru se aq deu qcrqn 'luarsalddns tegt qcJ \eso] pue ldecuoc tsoru lcocqrel)., {ep rad nI000'0I -qBtse ueeq ser { r{rnru se aq deu qcrqn 'luarsalddns tegt qcJ \eso] pue ldecuoc tsoru lcocqrel)., {ep rad nI000'0I -qBtse ueeq ser { r{rnru se aq deu qcrqn 'luarsalddns tegt qcJ \eso] pue ldecuoc tsoru lcocqrel)., {ep rad nI000'0I -qBtse ueeq ser { r{rnru se aq deu qcrqn 'luarsalddns tegt qcJ \eso] pue ldecuoc tsoru lcocqrel}.}
sporrad .&rousr c urruElr^ roJ Tn erp 'rcu; uI 'c ullusl 3uo1 re,to ,4aolloJ or sr ssol auoq ot rq8noqr Jo PerePrsuoJ 'cruolqc seuoJaq a {elurJo uJeued srqr;r lga4 sottlntuns -1^ roJ srrun 0002 Jo Tn eqt ^,r.olaqdyqereprsuoesr tunorue ueqr qJrq,4a'uorlBJlueJuoJ uor unrJIEJ ruuas eql sJe,,r4.ol sqt pue '(LOOZ ''p re qrerrl) a;es fra,r eq ol pereprsuor unIJIer
ot paruduroc aregdsogd r1rntu ool'^rol are sa{E}ur sl lepTstrun 000I Jo uoneruaualddns q unuelr1 'drqsuon -BIar elJsnlu-c sFp qsrTqBrseor tuntrlec 1 lllercedsa 'oner ateqdsoqd e^rsseJxg rnq 'qpy ur aurlJap erp Jo lueuoduoc e aq deur {18uans 'auoq elrsnu
Frale{s se.rordurr C uttuetra tegt tdacuo] plaq -3uo1 eqa '(vooz ''le la Ferrag-g;oqcsrg) ueruo^'t ,{Fap1a &orrlnque q slle] saJnper uonetueuelddns g urruelr,1 '1pru dlproedsa 'spoo; peglrroJ-C ro C unuetra ur grrr gss eunsuoJ naeJos esnBJagsalEls Patlull egl ur sntels C urruelrl,lo.ol duedurocce dgereue8 se Blur unrJleJ 'no1 ,(Fep1eerp Suorue
sarn]Je.IJdlq;o lsrr peseaJJurpu? Mulvihill B et al: Effect of myofibrillar proteinsin vitro on bioavailabilityof non-hemeiron, Int J FoodSciNutr 49:187, 1998. To a lesser degree, lack of exerciseand a sedentary mode of living that continue over a lifetime also contribute significantly to bone loss, although the most important influence is probably on
inadequate accumulation of bone mass. Numerous studies in experimenal models of moderate renal insufficienty demonstrate a significant decline in this process with protein restriction. Future treaument methods may include augmenting behavioral interventions with specific stimulus controls, selfmonitoring with pharmacotherapy, targeted
interventions available from the Internet, meal replacements, and telephone interventions. This may account for the observation in critically ill trauma patients (Moore et al., 1992; Kudsk et al', 1992). In addition, fructangular processes in parenterally as opposed to enterally fed patients (Moore et al., 1992; Kudsk et al', 1992). In addition, fructangular processes in parenterally as opposed to enterally fed patients (Moore et al., 1992; Kudsk et al', 1992). In addition, fructangular processes in parenterally fed patients (Moore et al., 1992; Kudsk et al', 1992). In addition, fructangular processes in parenterally fed patients (Moore et al., 1992; Kudsk et al', 1992). In addition, fructangular processes in parenterally fed patients (Moore et al., 1992; Kudsk et al', 1992). In addition, fructangular processes in parenterally fed patients (Moore et al., 1992). In addition, fructangular processes in parenterally fed patients (Moore et al., 1992). In addition, fructangular processes in parenterally fed patients (Moore et al., 1992). In addition, fructangular processes in parenteral processes in
(synthesized or extracted), as well as other fibers, may have prebiotic properties and are likely to be considered functional fiber in the future. However, a 782 PART5 r Medical Nutrition Therapy recent meta-analysis suggests that rosiglitazone may be associated with an increased risk of myocardial infarction in those who use it (Nissen and Wolski,
2007). These agents can decrease appetite, reduce absorption of fat, or increase energy expenditure. Successwith this method of feeding depends largely on the degree of mobility, alertness, and motivation of the patient to tolerate the regimen. o What are the sourcesof the supplements(e.g., OTC or prescribed, Internet, health care provider) and
manufacturers of the supplements? After adolescence, increases in body fat occur priMales Females marily by an increase in fat cell size. Lipoproteins and Metabolism Chylomicrons, ffansport dietary fat and cholesterol from the small intestine to the liver and periphery (see Thble 32-1). See Seroton in flatulence, 674
definition, 673 flatrs, 674 definition, 673 flatrs, 674 definition, 673 flavonoids definition, 269 dietary sources, 276t in adult diet, 281 in foods, 275t flow phase definition, 673 flavonoids definition, 673 f
requirements in acute renal failure, 926-927,927t in end-stage renal disease, in children, based on therapy q.4,e,947t in head injury 1033 itr HIV disease, 1011 ofcancer patient, 973 s1'novial, definition, 739 rn food allergy diagnosis, 748 fluoridation ofwater
643b fluoride, 12+-125 action mechanism,643 deficienry of,125, l37t functions of,125, l37t functions of,124-125, l37t functions of,124-125, l37t functions of,124-125, l37t functions of,124-125 action mechanism,643 deficienry of,125, l37t functions of,124-125, l37t functions of,125, l37t functions of,125, l37t functions of,124-125, l37t functions of,124-125, l37t functions of,124-125, l37t functions of,125, l37t functions of,125, l37t functions of,124-125, l37t functions of,125, l37t functions of,125,
and, 638t toxicity 125 fluoroapadte definition, 636 formation, 636
identified as having anticoagulation, antiplatelet, antagonistic, or drug-metabolizing activity. Physical activity lessens CHD risk by retarding atherogenesis, increasing HDL cholesterol, improving glucose tolerance and insulin sensitivity,
 aiding in weight management, and reducing blood pressure. Hipercholesterolemic mice given chitosan for 20 weeks had significantly lower blood cholesterol levels (64% ol controls) and highly significant inhibition of atherogenesis in the aorta (Ormrod et al., 1998). In contrast, chitosan feeding resulted in severe malabsorption of fat-soluble vitamins
and bone minerals in rats (Deuchi et al., 1995). The Dietary Supplement Health and Education Act (see Chapter 18) provides flexible guidelines for health claims and exempts dietary supplements from premarket approval regulations such as those that exist for food additives. Prayers are offered before any food is eaten. The administration of other
medical therapies requiring fluid administration, such as intravenous medications and blood products, necessitatescarefirl monitoring. Moser M: Update on the management of hypenension:do recent clinical trial results indicate a change in national recommendadons for rherapy? J Clin Hypmans 4: (zuppl2) 20, 2002. I i fine Nutrients and Their Metabolism
43 CHAPTER and have exactly the same chemical structure, except that the position of the -OH group on the number four carbon (C-4) on glucoseis in the opposite position compared to the same-OH group, in the same position on galactose. Indicate what the Establishing apport 6 Suggestagenda e Invite input Assess current eating behavior of the same position of the sam
"Adherenceruler" o Exolorebehavior o Affirm, compliment, reinforce Give ieedback o Show graphs, forms, results s Assess typical"day o Elicitresponse Assess motivation, confidence, readiness to change o Motivation, confidence, results s Assess'typical"day o Elicitresponse Assess motivated, not ready GOAL: Raise awareness o Ask key open-ended questions o Respectdecision o Offer
professionaladvice (if appropriate) Unsure, low confidence GOAL: Build motivation/confidence s Exploreconcerns 6 Look into future s Ask about next step Motivated, confidentr ready GOAL: Help plan action o Identify options o Help set realisticshortterm goals s Develop action plan Closethe encounter s Summarize o
                              ime FIGURE 19-2 Ngorithm of motivational interventron. FeedingStrategies Diet modification focuses on meeting the increased nutritional requirements of CE Along with adequate dietary modification, positive eating behaviors must be established (Stark et a1., 2003; Powers et al., 2005). 2 0 0 2 . o Aim for recommended levels of low
density-lipoprotein cholesterol, high-density-lipoprotein cholesterol, high-density-lipoprotein cholesterol, and triglycerides. Milk or cream, which in the early days of peptic ulcer management was considered important in "coating" the stomach, is no longer considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the stomach, is no longer considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the stomach, is no longer considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the stomach, is no longer considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the stomach, is no longer considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered important in "coating" the early days of peptic ulcer management was considered in "coating" the early days of peptic ulcer management was considered in "coating" the early days of peptic ulcer management was considered in "coating" the early days of peptic
the penetration of bacterial endotoxins into subgingival tissue. Most food labels do not list viamin A content. For example, corticosteroids affect vitamin D metabolism and can lead to bone loss. 70%. Patients who cannot meet their needs by the oral route can be maintained by a combination of enteral nuuition and oral intake. In 1998 the NIH
recommended asainst usine VLCDs for weightJoss therapy because the deicits are ;o great and nutritional inadequacieswill occur unlessVLCDs are supple- mented with vitamins and minerals (NIH, 1998). Potential improvement in the patient's quality of life 2. Contmtphtim. 'Once some awareness of the problem arises, the person enters a period of
ambivalence: the contemplation stage. The conventional system and the SystEme Internationale d'Unit6s (SI) system. The conventional system sometimes lacks convention; thus different laboratories adopt different units to
report the same analyte. Oral nutritional supplements can be useful, but their 984 PART5, Medical Nutrition Therapy acceptance of ten a problem; thus children should be offered a selection from which to choose. Nokes C et al: The fficts of iron defuiengtand anemiaon mentaland motorperformance, educational acbieaement, and behaaiorin
children: an annotated bibliography: a report of the International Nutritional Anemia Commhatioe Group, September 16-17,1996, England, 1998, University of Oxford. MnNAcEMENT of NurRrrroN Cancer and its treatment can impact nutritional needs significantly and affect digestion, absorption, and metabolism. Clinical status Fluid requirement* Energy
(kcal) requirementt Protein requirementt Protein requirementt Carbohydrate/lipid considerations Micronutrient considerations Micronutrient considerations Formula selection A. GnnoNrcLuxc DrseAsE O F P N E M A T U R I T YA N D BnoNcHoPULMoNARY DyspLAsrA Pathophysiology (CLD) and bronchopulChroniclungdisease of prematurity (BPD) are closely related but with different monary dysplasia
diagnosticcriteria and are the result of incompleterecovery from lung injury in the neonatalperiod. The newborn's lungs appearunable to respond to adverse situations. A major risk factor is the inability of immature lungsto slmthesize surfactant that permits inflation for gasexchange. CLD and BPD occur most frequency in infants who are
extremelypremature or are low binh weight (seeChapter 43). Osteoprotegerin This natural cytokine, osteoprotegerin (OPG), is secreted by osteoblasts aswell asother cell types. OPG, which canbe detected in humanserum, acts by inactivating another cytokine that affects osteoclasts, thereby inhibiting osteoclast activation and bone resorption.
recordings, Med SciSports energycontributed by Estimating HH: PM, Guenther Jensen fiber using a general factor of 2 vs.4 kcaUg, J Am Diet Assoc 2000. o Cut shapesout of cranberry sauceand servewith turkey. Mineralization begins at about 4 months' gestation and continues through the preteen years. Sigman-GrantM: Stagesof change:a
frameworkfor nutrition intervendons, Nutr Todayl 1:162, 1996. Intercultural communication is a complex field that not only encompasses language but also the context in which words are interpreted, including posture, gestures, concepts of time, spatial relationships, t re role of the individual within a group, status and hierarchy of persons, and the
setting (Satia-Abouta, 2005). Numerous studies demonstrate the efficacy of sibutramine as a weight-loss and weight-maintenance agent for obesity in Type 2 diabetes (Li et al., 2005). Pneumoniausually occursasa nosocomialinfection or as a consequence ofaspirationoffood, fluid, or secretions and weight-maintenance agent for obesity in Type 2 diabetes (Li et al., 2005). Pneumoniausually occursasa nosocomialinfection or as a consequence ofaspirationoffood, fluid, or secretions and weight-maintenance agent for obesity in Type 2 diabetes (Li et al., 2005).
techniques aid in preventing this pulmonary infection. literarurereview, JPEN J Parenter SlatteryML et al: Plant foods, fiber, and rectal cancer, Am J Clin Natr 79:274, 2004. 9 l 5 t cystine stones, 954 cytochrome P-450 enzy rnesystem definition, 432 in drug metabolism, 414 cytokines definition, 959, 1021, 1042 in cancer cachexia, 968 qtokines in metabolic
stress, 1022, 1024 cytomegalovims (CM\') definition, 337 daily value(D$ definition, 337 in nutrition factslabel, 344,3+7 darunavir(Prezista), nutridonal
complications, 1005t DASH (Dietary Approachesto Stop 1 Hlpertension)diet, 1250-125 definition, 865 in h; pertension prevention, 872, 875-876, 876b dawn phenomenon, 798 definition, 764 DBPCFC. However, the question of safety has been raised because of concern about an increase of renal stone formation and arterial calcification in older subjects,
as observed by x-rays or other types ofscans, who have been taking these supplements of calcium and vitamin D as a preventive strategy against bone loss or as a treatment for osteopenia or osteopeni
nutrient reduction diets contain 207" to 30% of calories from fat, 150/o to 20% of calories from protein, and 5 57" to 600/oof calories from protein and norepinephrine from the adrenal medulla and norepinephrine from peripheral nerve endings. These catabolichormones act primarily on the
muscle to mobilize glycogen and on adipocytesto releasetriglycerides. A more definitive, invasive test is angiography (cardiac catheterization), in which a dye is injected into the arteries and radiographic images of the heart are obtained. Arginine is an amino acid that may enhancenitrogen retention, wound healing, and immune function. "Estimated
energy expenditure (EER) is the averagedietary energy intake that is predicted to maintain energy balancein a healthy adult of a defined age, gender, weight, leighl, and level of physical actitity consisientwiti\ good health. See also Athletes in children, 556-557, 557b throughout life span, 538-539 measurement, direct methods, 1213 osteoporosis and,
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intervention techniques to everyone, regardless of the readinessor stage ofchange. Genetic variations ofthe type and quantity of oral hygiene certainly has a direct effect on the risk oforal infectious disease. They
share common manifesations and can be considered together with respect to dietary management. Energy resffiction improves glycemic control. The changes in laboratory data may precede changes in other nutritional indices, but generally, although not always, the data available should point to the same conclusion. Short-Term Central Access
Catheters used for CPN ideally consist of a single lumen. These mechanisms maintain not only gastrointestinal (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critically ill but also pulmonary (mucosal) immunity with enteral nutrition in the critical nutrition in t
want to follow this new eating pattern, and on the other I want to eat spontaneously, not worrying about decreasing my fat intake. Puccio M, Nathanson L: The cancer cachexia syndrome, Semin Oncol24:277,1997. to Nutrition Diagnosis: Limited adherence nutrition-related recommendations related to frustration with new eating plan as evidenced by
food records showing no changeand inconsistent carbohydrateintake 1. sodium and fluid are resorbed, and blood pressure is reTherapy Nutrition Medical turned to normal. Muslims fast every year during the month of Ramadan, which occurs during the ninth month of the Islamic lunar calendar. The entire esophagusfunctions as one tissueduring
swallowing. A true vegetarian, or vegan, does not eat any food of animal origin. Reduction of dietary fat intake, use of smallermeals, and dietsof low caloric density may be helpfirl @elgado-Aroset al., 2004; Feinle-Bissetand Horowitz, 2006). Becausealcoholicbeveragesmay alter GI functions in a number of ways, they are also normally limmovement of
foodstuffrthrough ited. Mild exerciseenhances the GI tract and increasesone sense of well-being. Nevertheless, concern remains that the combined intakes of supplemental vitamin A and vitamin A from fortified foods may be too high in the United States, especially in health-conscious postmenopausal white females. Diuretics . gtl& ueruo.rd1.rep1a ur
sernsearu lsour roJ JelIuIs sI saxepursn-telsuoJrur uon?rJeldep-or-'{e6:l€ ta J eJea)-ruue-I ' t 0 0 2 ' 2 9 0 I: t 0 1 t o s snVt q r u V f 'luarueSeuzru seruoJtnopue aJeJlrrrcnb ot derupror stdope '; ,{aoe1 VCV:lepou puesserorderer uourrlnN:g l*IJlud ' eunrururolnc 900Z' 6t S|(t) Ib paW I o!B r!pa[ aatd'saseesrp ur sua8nueotnepegrpourdla.r.rrepxg:lEre
Jg uerrn) '7007 'lt11 sle taupry ruV'b661-gg6l'11 dea;nguoneunuexg f uortrrtnN pue qtleaH l?uorteN eqt :srserqlqorqdeu pue lno8 uea.{\tequon€roosse er{J :C uer{rn} 'trlH rrurerx 'erqdlape1rq ffioptaauo, qt so4oogrr rjlifilffi 4' 7 10,t' t^i f ' " S00Z'9S StgZtul lowatnaqy (snrrgtre proteurnerlJ rpt. A summary is shown in Thble 21-4. SeeBasal energy
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serum, reference range/significance,415t BMC. \4gorous activity should probably be avoided in the presence of ketosis (ADA, 2006b). After being stabilized, he was transferred to the operating room, where he underwent a splenectomy, which is a result of the operating room.
of blunt abdominal trauma. Consequency his TPN continued at the goal rate. 4, Pyruvate dehydrogenase enzyme complex reaction: unidirectional and cannot be reversed. others: a comparison of reported food intakes, Eur J Clin Natr 54:281, 2000. Maintenance of Reduced BodyWeight Prognosis for maintaining the status of the reduced-obese person is
typically reported as poor. For the exerciserwith diabetes, this takes on added importance because of increased risk for late-onset hlpoglycemia (Franz, 2002). netic research. Products labeled "made with organic ingredients" must contain at least 700/oorganic ingredients, but they may not use the USDA seal. Processed products that contain less than
700/oorgaric ingredients can list those ingredients as organic, but they cannot be labeled as organic. Ghitin is best known as the major component in the exoskeleton of arthropods, mollusks, and marine invertebrates, including lobster and shrimp, and is usually consumed as an isolated supplement. Krack A et al: The importance of the
gastrointestinalsystemin the pathogenesis of heart failure, Eur Hear 26:2368,2005. In addition children who have growth failure and undernutrition in utero and lipid and glucoselevels (Stein et al., 2005). Gastric ulcers typically
are associated with widespread gastritis, inflammatory involvement of oxyntic (acid-producing) cells, and atrophy of acid- and pepsinproducing age. Each time a person swallows, the particle- and microorganism-containing mucus passesinto the digestive tract. MedicalNutritionTherapy Assessment Because of the fragile nature of
affected infants, careful and consistent nutrition assessment is imperative. The "Zone" and the "South BeachDiet" both restrict carbohydrates to no more than 40"/" of total calories, with fat and protein providing 30o/oof calories each. Laboratory data are the only objective data used in nutrition assessment that are "controlled"-that is, the validity of
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the method of its measurement is checked each time a specimen is assayed are the same time as an iron-rich food or meal. Often surrogate decision makers are involved in treatment decisions. Biomarhers Sinclairly et al:

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Metastasisof headand neck carcinomato the site ofpercutaneousendoscopicgastrostomy:casereport and EnteralNutr25:282,2001. This process ideally takes 2 to 3 days; however, it may become more complicated, depending on the degree of gastrointestinal function. Consumers can be guided to peel and chop fruits, vegetables, and other foods to
reduce the need for biting and chewing. Its ability to form a large concentration gradient between its inner medulla and outer cortex allows the kidney to excrete urine as dilute as 50 mOsm. Registered dietitians and other health professionals are essential translators of food, nutrition, and health information into
food choices and patterns; they can work together to develop eating patterns and habits that promote health. The client is not expected to be ready to do something during the visit (see Nezr Directions: The RD Counselor as Life Coach). Studies have shown that cheese and milk, when consumed with cariogenic foods, help to buffer the acid pH
produced by cariogenic foods (Marshall et al., 2003). Becausebone health of women especially is influenced by three major interacting factors-diet, exercise, and estrogen-it is never too early or too late to prevent or lessen the onset and severity of osteoporosis by ensuring adequate intakes of calcium from foods (and supplements); adequate intake of
vitamin D either from sun exposure or foods or supplemens; engaging in regular weight-bearing exercisesl and, if necessary taking bone-conserving drugs. The FDA concluded that, although a small study suggested that chromium picolinate and
either insulin resistance or tlpe 2 diabetes is highly uncertain. To reduce the risk of infection, the catheter lumen used to infuse CPN should be reserved for only that purpose. Satiety is associated with the postprandial state when excessfood is being srored. Ifnot, what suggestions would you recommend? Consider her hipertension, planned surgery and
radiation therapy. o @ Eh!!! Y'A Ets q:t' E ax -q?! Y'F F; E bo+ hE; 6. o FF qq vl'>' -+ o O F *E i E-) E a gE; E; 6:; hi ij.I b ir.E E g- g- c o G o CI o tr oE O! XH m.l YE >'x 14 eE Ov60 x "; ia qo!> o: N o 'j^i &; ov gH = .E E. The most frequent complications of gastric surgery are bloating of the pouch, nausea, and vomiting. Changes in the DNA at the
molecular level usually involve a single nucleotide change or several nucleotides within a single gene. Kirby DF et al: Enteral accessand infusion equipment. Initially it is important to discuss the client confirm and
justifit the decisionto makea change. Mild fluorosis starts with white patchy spots. In young children this can result in permanent oral structure malformation lasting into adulthood. This happens to many people. The following are examples of listening reflectively: Example sof lis
 eat out. 9. 3g} sasesJcur ecDcerd IJn Jo {srr sIgI 'uoneurrn tuenber; ro .4cua8rn eseaJcep o1 d1a:aa -os a>lelur plng llurl stuanedauog .1ryd1ag sr eunpeg eroJ -eg tuor{tSullrurg pue sJnog8ur4e,r.agr rnog8norgr,(1uaai sprngSunngrrtslp,suelgo;dasaglazrruruluoJ .aJueuBuoJ -ur puE 'dcuenba4 'dcua8rn (rcurrn ul llnseJ .4eur 135 pue dgredole,4ur,
{leteurarly 'eJuEIEqplng Jo uonelnrlersrru pue (stfd suopcaJurlrcr &Euun ol lenpl pul aql sesodslpe.rd sllJ 'IlS ro 'proc leurds eqr Jo uoprpuor cr8ologred e , {q1 -udo;a{u 3 {rlr!\ slueued uI enssl tuerue8eueru pue uSrs uoru '(uoFuele.r -ruoJ E sl r{c1{.r\ d:eur.rn sr eJntBaJ ureru arp) rep -pe1q cruaSoJneu glltr esop ur ureJuoJ E sr e>luturpFblT
 'ucnpord ftrcp ateururqa utql rer1ter l?orrp eq] qsng dlaq or sprnbq peue4crqr dlarc -udordde qlr.4dsDnpoJd rlll- eql ((eserlc,,o] pe8eJnocu? Pathophysiology FIGURE 35-5 During a nutrition education session, a client with chronic obstructive pulmonary diseaseinteracts with a registered dietitian, nurse, and respiratory therapist so that she will
receive optimal nutrition c:rrc. To support metabolic control effectively, formulas and medical foods must be consumed in three or four nearly equal portions throughout the day. 626 PART4 I Nutritionfor HealthandFitness Boron Sodium Boron appears to be used by osteoblasts for bone formation, but little information exists on whether boron is
absolutely required (Palacios, 2006). Research in adults has shown minimum effects of orlistat on serum concentrations of vitamins A. Postsurgical dietary recommendations include a low-fat diet with small, frequent feedings of nutrient-dense foods and avoidance of large amounts of fluids at any one time. with root caries incidence in an TakanoN
Factorsassociated elderly population, CommunityDent Henhh20:217,2003. DwyerJT et al: Dietary supplements in weight redrction, J Am 105:805,2005. A systematic review, JPEN J Parenter Enteral Nut 28:251,2004. o A recognized seal of a product and that the
product has passedindependent analyses confirming that the label accurately represents the product. o For hot foods: prepare per recipe, freeze and heat to temperature beforeserving. Chronic diarrhea or intestinal malabsorption Hyperparathyroid disease Chronic obstructive luns disease Subtotal gastrectomy Hemiplegia Menstrual Status Loss of
mensesat any age is a major determinant of osteoporosis risk in women. are made by modilring the basic celHeteropolysaccharides lulose structure to form compounds with different water solubilities. Management of root caries and the
need to replete liver and muscle glycogen, which can take tp to 24 to 30 hours (seeChapter 23). To determine (A PAL), take the sum of the A PAls for each activity performed for 1 day from Table 2-2 (Institute of Medicine, 2002; 2005). Roll with resistance 6. Stable patients, especially those who have been fed by tube for long periods of time, do not
need residualschecked regularly. v IooJ 'sPooJ apr,rord PuB ralB^t roJ per$nsqns eq uBr secInf Jo 'a.rmxal 6elsel 'tq pa'ro'rd Suzrsegdue eql ernleradruar pue ag -url eq osle uBJ 8ulrlto1plr.5 'eroru 13e ol Pa8eJnocue '1eurs qtur .{eru tuened eq} 'slrelu luenbe{ Paluesard '(t-tl tog) Suuea epq.rrl5reue elresuor ol puB uoBulndrueu lero JoJ psau 3ql
ecnPeJol Icuelslsuoc paarnd ro Tos .{leolueqceu ol dcuelsrsuoJ PooJ ur se8ueqc fduraql uolllrlnNtusrpa11q { I fUVd 9t0T CHAPTER for Neurologic Disorders1077 4l i MedicalNutritionTherapy Guidelinesfor Feedingthe DysphagicPatient-cont'd Part TWo:Techniquesfor lmprovingAcceptance-cont'd Luyerin ng . When abdominalbloating is a problem
limitation of foods associated with gas formation may be helpful (see Chapter 27). The family has Medicaid benefits. eq (1ensn uEJ uorteJoryarueduy .poluaunJop ere sdrqsuorl -BIer rraJJe-pue-esnecou alnr E sElnq {lpropr",r" parrod -er ueryo are stuerutean dlaq-; yes Jo srcaJJeelqtro^Bd 'srgeueq Jo surrBIJJo stJaJJarraql uoddns ol aruaPne JgDuercs
eptrl eAEr{lErp gueuD?aJl IErsJeAoJluoJ pue serpauer ol arnsodxe relear8 e e^Eq stuaBed (Id ,leu .dleq.ro; saqceordde po -relul arp ot ssocre 8ulry'or8 WrJVI -tpatu &rluerueldruoc pue eln?uratlg ol uJnt dlqepuersrap -un sCU gtrrn suosrad .{ueur 'suroldurds;o Seqar tuaueurad uele Jo eJnJ E asnuo.rd touueJ aurJrpau uJepou esneJag lSVISI 0 SI I Vt
llnlHU u0 J sSrdvu3HI lvNoI rNt AN03 N J 0 S N0 I I V I I 1 , l 1 I 'ltrunururoc JgDuerJS eqr dq cxor paureep ueeq a^Eq rpoq rad ,sprrrllre JoJ seJnJ Ienualod se petoruord ueaq e^Bq terp sqrar{ ere EJIEJIe pue le4uroc qrog 'lryruJeq eq UEJ sonr1eporu tueuleeJt_Jles eruos ,stsoc etp .ro; ldecxe 'ssalurreq sr uoqBluarurradxa f:eterp et[] qJmu Jo
q8nogrly 'fra;cs ural-8uo1 ro s8n-rpqrr.,nsuoDcerelur 8ur Jo pu? Maldigestion and malabsorption, as well as the progressive complications of the disease, make it difficult to meet increased nutrient needs. Table 25-3 contains a scheduleof fluoride supplementation for the public through age 16. Symptoms often interfere with sleep, worlg social events as the progressive complications of the disease, make it difficult to meet increased nutrient needs.
and the overall quality of life. She presentswith recent weight loss (she is at the fifth percentile for weight and at the 25th percentile for height), chronic sinusitis and ear infections, and wheezing, The parents bring you a 3-dry food record that includes the time and dosageof the prescribed pancreatic enzymes and vitemin/ miner al supplements.
ThrekeE et al: Analysis of acrylamide, a carcinogenformed in heatedfoodsruffs, J Agric FoodChem50:4998,2002. The second at a 1:1 dextrose-to-amino method combines the lipid emulsionwith the dextrose-and amino acid solution and is referred to as a total nutrientad mixture or 3-in-1 solution. rpr,r {uopergnuepr oN sllDlsroloru Jo urelted perors dlpcn
rorqnsJo ssoT (alnsdzcleurelu erll reeu lraue erp ro Lreue Ierqerer elppFu erp;o {1ensn) suorselIErproJ u!er8eql ulells sesPes!0 cl6olorneN uoruuroS lo sJapros!0 3!6olornaN rol fdpraqluorlrruNlEcrpaw €,L0Tsraptoslo i Tt utldvHc qseg pue
'acr 'salcrsdod 'elerul prng peseaJJepruo { stlnseJ ltrp ,,uonerpdqep JruoJr{J pllru,, E rpl \ pelelJosst ueuo are asrelsru pue anSneg 'eruEIEq plng ulerupru ol pepeeu eJB JelE^\ aSeluacrad ,{EH e urBluoJ reqr spnbq >lJrqJ 'Jeue Jo ->lJrr[rqJJBrsuJoJ PeyrPoru B urBluoc leql sJeua{)nD IBIJJOTU -ruoJ Jo 'slueurelddns ererpdqoqrec relnporu 'gcrulsu:oc
tap,nod {IFr frp leJuou rpr,tr peue{rlp eq uec saddl 1e 'sprnbq 8urua4cnp,{q raur eq,{eur slueurarmbar ;o sprnbrl pInH 'spr-nb1 unp Surrunsuoc lrpcg;lp seq ruaned e;1 'fuec pro ar1rJo ptol eqr or peonporul sI II eruo lryrer5 uro{ ryauaq eruostpra'acro; relncsnurarrtqndord Iq qceruorsaqt otul snSuqdosapue xu&eqd arp q8norgr JoJs,trol, brrrrcproble uro lryrer5 uro{ ryauaq eruostpra'acro; relncsnurarrtqndord Iq qceruorsaqt otul snSuqdosapue xu&eqd arp q8norgr JoJs,trol, brrrrcproble uro lryrer5 uro{ ryauaq eruostpra'acro; relncsnurarrtqndord Iq qceruorsaqt otul snSuqdosapue xu&eqd arp q8norgr JoJs,trol, brrrrcproble uro lryrer5 uro{ ryauaq eruostpra'acro; relncsnurarrtqndord Iq qceruorsaqt otul snSuqdosapue xu&eqd arp q8norgr JoJs,trol, brrrrcproble uro lryrer5 uro{ ryauaq eruostpra'acro; relncsnurarrtqndord Iq qceruorsaqt otul snSuqdosapue xu&eqd arp q8norgr JoJs,trol, brrrrcproble uro lryrer5 uro{ ryauaq eruostpra'acro; relncsnurarrtqndord Iq qceruorsaqt otul snSuqdosapue xu&eqd arp q8norgr JoJs,trol, brrrrcproble uro lryrer5 uro{ ryauaq eruostpra'acro; relncsnurarrtqndord Iq qceruorsaqt otul snSuqdosapue xu&eqd arp q8norgr JoJs,trol, brrrrcproble uro lryrer5 uro{ ryauaq eruostpra'acro; relncsnurarrtqndord Iq qceruorsaqt otul snSuqdosapue xu&eqd arp q8norgr JoJs,trol across the snapshill brought are likely uro lryrer5 uro lryrer5
erp uro{ poojJo a8esstd, {seapue oJBS 1e Sur,nolprrs IBurJoN, (yaarxegerparalduroc sl 1nq dprer -rmlo sur8aqaolF^rs aqrJo uoFenrul 'Surqogcecnpa-rdlag osluuec ssacordSurrnollenseqJuo Sunerluecuo3'(uoFrsod tloq SuFrrs''a'r) pe8e u rop-ulqr e uI peeqaW W1,v'rqSrrdn -JnoJueeq pFoqs Suvnolerts e^DjeJle.ro; uoplsod rador4 6u;no1lemg
IBrreDBq 'rerg er8eqdslq puope5l arpgo sa8er luareJ aprals re8uol ou sr JalE^\ elrJels 's3rm1 agr uI Jele^r allrals -JIporp ro; gg xrpuaddyaeg 'Flcgeuoqaq, {eurPOres sPooJ ruo { uela 'ensua .{etu eruounaud uoEurrdse esnBJOqluale arp SuFueqO 'ruealarBJqrleel {eWJouonuel SurualeargJ-e;rTe esod deur pue s5rm1agr otut paterrdse d1t ;o
r(ouelsrsuoc -re eql ot ruatp Surrq pue suralqordeFeqds,ipgo suSrsro; -sea eJEsprnbrl 'loJluoJ puB uorlturpJooJ tso(u agJ sarrnbar dyleuuo; uruaeJJSor (ru Jo esJnueqt s^{oll?sleaurSurrnp Jete^t Jo ecrn{ se qcns lruetssuoJ ur.FJo sppbl Surrnolprt5 pue'pne; 'anSuol alJsnruJoIBJBSBTu sprnb!'t uope^Jesqo'ssau{ee,.rr eJBserutrleeru5uo1dlensnun
PuESurq8noc {Jr.&pelercosse 'tJJBJurruelsurcJq B ruo.S asrJeuEJ stqe$uad parred erp suodaa 'palreunr eq pFoqs put uonulrdseroJ {srr ;o -urr 'aldurrxe rod 'tno aseeJcur aruElearuSurrnpsuoBesJaluoJ suoBJBJrsIP eq aseesrpct8olornau peln.r touutJ IEI Pue -uauuoJrauE'srrJeJuoJ rb4 are BtxeJouB lnq 'uoFcnrJsqo IBcIuBgJeIu E Jo llnseJ elll ,fipraua8
ere Pu?ssollq31a16 'el8eqdsfpe^eqol d1a1rlare a {ons Jo (enuaueP(STV eseqd srqr Suunp rmro lErF sepFrltrq 'drelunlozrut {ara1d '5141'aseesrps(uosuqJeda8eN-erelJo alulPeuuelu -ruoJ sr 'qceruots eql otur snSeqdosa agr qSnorrp sanun Wur -uoc snloq eW r{rlq.& Suunp 'aseqd peSeqdosa ro IBUSoqJ sIqJ aleulPJoocdlaq ol sarde srueped
 'ssaoorde^BBnlBAe -regr Surrnolle^\s parrnbcee,req(sqA) ut Sururer osPr.ld lPa6Pqdos3 suenBarp parelsr8ar duepgIBuorlIpP? These include qualified health claims, dietary guidance statements, and the most commonly used approach, structure-function
claims. This is one of several factors that may be related to the decreased bone mineral content that for years has been described in populations with CE Low vitamin E levels have been associated with hemolytic anemia and abnormal neurologic findings. Currendy none of the 50 individual weight-loss supplemens meet criteria for effective or
recommended use (Sharpe eta1.,2006; Saperet a1.,2004). What are the product claims and what are the facts? Beyond this acceptance is a skillful form of reflective listening, while the nuritionist reflects back understanding. Not surprisingly the risk of ECC increased in those children who
fell asleep while sucking on a botde. OtherLiverDiseases Liver diseasehas severalother causes. Liver tumors can be primary or metastatic, benign or malignant. HSCT is now an accepted and increasingly successfulintensive therapy for a wide range of disorders in children. If patients cannot maintain an adequate caloric intake on this protein
recommendation, their protein intake should be increased to 0.75 glkg/day.ln both cases about 50olo of the protein should be of HBV (l.Iational Kidney Foundation E\IKFI, 2000). Repon of aJoint Food and Agriculture Organization/World Health Organization
Geneva,1985,WHO. MedicalNutritionTherapy Nutritional needsvary widely within this group of patients, dependingon the underlying diseaseprocess, prior nutri- for Pulmonary Disease917 CHAPTER 35 i MedicalNutritionTherapy tion status, and the patient's age. Hypercatabolismor hlpermetabolismmay be present. Between the years 1980 and 1990
there was an increase in all the ethnic populations except the white group (Sockalingam, 2002). Women who do not smoke and who do not smoke and who do not smoke and use oral contraceptives. $Although not necessarily high in copper, alcohol is discouraged because of its acrion as a
hepatotoxin. van Ommen B: Nutrigenomics:exploidngsystemsbiology in the nutrition and health arenas, Nutrition 20:4,2004. esophageal reflux varies with the description of the symptoms, but about 20% to 40"/" of adults report symptoms of gastroesophageal reflux varies with the description of the symptoms, but about 20% to 40"/" of adults report symptoms of gastroesophageal reflux varies with the description of the symptoms, but about 20% to 40"/" of adults report symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of gastroesophageal reflux varies with the description of the symptoms of gastroesophageal reflux varies with the description of gastroesophagea
requirements, additional calories to support the deposition of tissuesneeded for growth are required for infants and young children, children ages 3 through 18, and pregnant and lactating females; thus the EER among these subsets of the population is the sum of TEE plus the calories to support the deposition. In 1983 researchers isolated the population is the sum of TEE plus the calories to support the deposition.
etiologic retroyirus and named it human immunodeficiencyvirus (HIV). Exercise helps all persons with diabetes improve insulin sensitivity, reduce cardiovascular risk factors, control weight, and improve well-being (AD,\ 2004a). Mueller C, Nesde M: Regulation of medical foods: toward a rational policy, Nutr Clin Prna 10:8, 1995. 1987: Techniquesfor
carrier detection and prenatal diagnosisofPKU are developed. In persons with type 2 diabetes, blood glucose control can improve with exercise, largely because of decreasedinsulin resistance and increased insulin sensitivity, which results in increased peripheral use of glucose not only during but also after the activity. Nutrition Diagnosis:
Underweight related to energy intake less than requirements as evidenced by weight approximately 20 lb less than desired 1. Mo nos a charides and polysaccharides do not normally occuras free molecules in nature can be
absorbed and used by humans. Monosaccharides can have three, fou 5 five, six, or seven carbon hexoses: glucose, galactose, and fructose. There are The Counselor Looks Within p efore entering a counseling relationship, the counselor IJ should look inward and consider how
the following factors affect his or her own thinking and how they impact the client: Relationship Between Senseof Self and Life Choices r Personalattributes for healthy change r Extrinsic versusintrinsic motivation. Some osteocalcin is also secreted by osteoblasts directly into the circulating blood. Florida PeterL. risk of infection because the tunnel
creates a barrier between the entry of the catheter into the skin and into the skin and Living ('\A{HEL) study group: a randomized trial of the effect of a plant-based dietary pattern on additional breast cancer events and survival: the Women's Health and Living 0, IHEL) study group: a randomized trial of the effect of a plant-based dietary pattern on additional breast cancer events and survival: the Women's Health and Living 0, IHEL) study group: a randomized trial of the effect of a plant-based dietary pattern on additional breast cancer events and survival: the Women's Health and Living 0, IHEL) study group: a randomized trial of the effect of a plant-based dietary pattern on additional breast cancer events and survival: the Women's Health and Living 0, IHEL) study group: a randomized trial of the effect of a plant-based dietary pattern on additional breast cancer events and survival: the Women's Health and Living 0, IHEL) study group: a randomized trial of the effect of a plant-based dietary pattern on additional breast cancer events and survival: the Women's Health and Living 0, IHEL) study group: a randomized trial of the effect of a plant-based dietary pattern on additional breast cancer events and survival: the Women's Health and Living 0, IHEL 1, INEL 2, IN
NIH released Clinical Guidelines on the Identification, Evaluation, and. $A water samplefrom the padent'shome water supply should be analyzed for copper content. 5 - 6 1. Commercial Programs Millions of Americansturn to commercial weight loss. The more caloric-restricted programs are usually
medically supervised in a health care setting. On a scale of 1 to 12, to what extent would you sayyou are meeting your diet in the past month? For more details on counseling skills for dietitians, use the latest Nuuition Care Process tools from the American Dietetic Association. The limits on alcohol to no more than two drinls per
day for men and one drink per day for women are made because alcohol also raises blood pressure (AI{A, 2006a). Sex-LinlT gene variant, which involves substitution of thymine for cytosine at position 677. Hospice care focuses on relieving symptoms and supporting individuals with a life expectancy of months, not years (NHPCO, 2006). Limit
between-mealeading and drinking of fermentable carbohydrates. He uses "natural" herbs from the local health food store. "The purpose of this visit is to see how you are doing in covering your dietary carbohydrate intake with insulin." . C on tinuousdrip infusion of formula requires a pump. J Am DietAssoe GermanJB et al:
Personalmetabolomicsasa next generation nutritional assessment, t Natr l33:4260,2003. Maintenance of healthy bone requires exposure to weight-bearing pressures. What are the social, lifestyle, and environmental influencesthat are affecting Shelly'sdental and nutritional health? In Charney P, Chicago, 2004, Malone A, editors: Nutritional assessment, t Natr l33:4260,2003.
 assestrnent, American Dietetic fusociation. Although most exercise studies have been conducted on healthy young adults, those that have been performed on older adult men and women have generated some impressive data @allace and Cumming, 2000)' The difficulty with these studies is keeping up participation. Potischman N et al: Increasedrisk or
early stage breasrcancer related to consumption of sweet foods among women less than age 45 in the United States, CancerCazuesCinrrol 13:937,2002. These meal replacementscan be found over the counter in drug stores, supermarkets, and franchisedweight loss centers or in a clinical setting as drinks, pre-packagedmeals (entrees), or meal
bars. They are designed to be part of a low-caloriediet. Feeding is started at one quarter to one half the goal rate and advanced every 8 to 12 hours to the final volume. pyhri organism results in a chronic inflammatory state. Russell M, Malone A: Nutrient requirements. The PPARgamma isoform is the best studied to date and plays a critical role in
adipocyte differentiation and gene expression. In poorly controlled qpe 2 diabetes, gluconeogenesis is also accelerated and may account for most of the increased glucose production in the postabsorptive state. HathcockJN et al: Risk assessment for vitamin D, Am J Clin Nutr 85:6,2007. Lipoproteinsmeasuredin clinicalpractice(i.e.,chylomicrons,very
low-densitylipoproteins [VLDLs], LDLs, and HDLs) consistof varying amounts of triglyceride, cholesterol, phospholipid, and protein. All drugs are recommended to be taken along with calcium supplements (500 to 1000 mg of calcium for bone
formation. It also may follow ischemic stroke or subarachnoid or tialamic hemorrhage. Kumpf I et al: Parenteral nutrition formulations: prepararion and ordering. What has become obvious is that, although people's genetic makeup sets the stage for one's susceptibilities to various illnesses, environmental factors such as nutrition and other lifestyle
choices determine who among the susceptible actually develops a disease. The role of nutritional genomics, often shortened to "nutritional genomics," Genetic research is rapidly clarifying the association between genes and
physiologic function. Interestingly, turmeric may actually inhibit adhesion of H. Nutritiot L. Health status/healthhistory-include lifestyle habits (e.g., smoking, alcohol, exercise) o Biochemical profile, laboratory data r Prescribedand OTC medications of Clinical response and the status of the common of the
lung structure, elasticity, usedin pulmonary disease, suchas bronchodilators, antibiand function; respiratorymusclemass, strength, and enotics, steroids, and diuretics, are describedin Chapter 16 durance; lung immune defensemechanisms; and control and in Appendix 31. Strategies such as putting down tlle utensils between bites, pausing during meals
and chewing for a minimum number of times are some ways to slow the eating process. USDHSS: Dietary Guid.elines for Americans, and nutritional status is extremely important for the tube-fed
patient; Box 20-3 gives guidelines. Fractice guidelines. Fractice guidelines are helpful to ensure optimal, safe provision ofenteral nutrition support. Enamel Dentin Demineralized enamel Fermentable to
 attack. GyllenstenU et al: Paternalinheritanceof mitochondrialDNA in mice, Nature 352:255,1991. Research has documented its ability to reduce cariesincidence by reducing the levels of S. Primary hyperoxaluria is a feature of an autosomal-recessive genetic defect of a hepatic enz).rne that results in overproduction of oxalate and a urinary oxalate
concentration three to eight times the normal rate. However, these methodsrequire more labor and increaserisk of microbial contamination that may discourage facilities from using modular compounding systems. J Periodontol Nowjack-Ra1'rner RE, SheihamA: Association of edentulism and diet and nutrition in U.S. adults, J Dent Res82:123,2003.
SeealsoInflammatory bowel diseases Crohn's diseases Crohn's diseases Crohn's disease, contrast, 690f, 690t definition, 674 ulcer(s) duodenation, 654 gf. fefinition, 6
294 stages, 295b stress, 663-664 UL (tolerable upper intake level), definition, 32 ultrafiltrate definition, 922 production, 922 ultrasound in body composition analysis, 405 in bone measurement, 620 ultratrace elements, 107 definition, 922 production, 922 ultrasound in body composition analysis, 405 in bone measurement, 620 ultratrace elements, 107 definition, 922 ultrasound in body composition analysis, 405 in bone measurement, 620 ultratrace elements, 108 definition, 922 ultrasound in body composition analysis, 405 in bone measurement, 620 ultratrace elements, 108 definition, 922 ultrasound in body composition analysis, 405 in bone measurement, 620 ultratrace elements, 108 definition, 922 ultrasound in body composition analysis, 405 in bone measurement, 620 ultratrace elements, 108 definition, 922 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in body composition analysis, 405 in bone measurement, 620 ultrasound in bone measurement, 620 ultrasound in bone measurement, 620 ultrasound in bone measurement, 620 ultraso
growth remaining: 15 years (agewhen the mother reachedadult height) - 8 years [presentage]: 7 years (L22-148 lb) - 90 lb (presentweighQ: 32 to 58 lb to be gained over next 7 years Approximate rate of weight gain: 5 to 8 lb per year for the next 7 years The BMI tables for determining childhood obesity are available for use by health care
practitioners (see Appendixes 12 and 16). Patients with advanced forms of congestive heart disease or hepatic impairment should not receive TZDs. toglitazone (Rezulin), the first approved TZD, was removed from the market because of hepatic impairment should not receive TZDs.
and design features may be used, depending on formula characteristics and feeding requirements. More complete descriptions of feeding tube characteristics are available elsewhere. 3, Pyrrate kinase reaction: secondexample of substratelevel phosphorylation of ADP + ATR is not reversible and must be bypassed for gluconeogenesis. Once it is
establishedthat the patient tolerates al:,ortt7 57" of nutrient needs by the enteral route, the parenteral solution can be discontinued. Autonomic neuropatly or medications, such as for blood pressue, may not allow for increasedheart rate, and individuals must learn to use perceived exercion as a means of determining exerciseintensity. Pract
Gastroenterol 26:84,2005. Prochaska JO er al: Changing for good, New York, 1994, William Morrow ResnicowK et al: Motivational interviewingfor pediatricobesity: Conceptualissues and evidencercirew, J Am Diet Assoe106:.12, 2024,2006. Long-Term Central Access A commonly used long-term catheter is a "tunneled" catheter. Overweight and obese
adults should be counseled to gradually increase to these levels of exercise and physical activity. JacobsEJ et al: Multivitamin useand colorectalcancerincidence in a U.S. cohort: doestiming mafter? Am J Epidemiol 158(7):621,2003. First, they involve multiple genes' each of which comes in more than one variation, that likely contribute in small ways to
the overall condition rather than have the dramatic impact that is more tFpical with single- or may not develop. Often this structure begins with a nutrition committee charged with setting or suggesting policy and standards of care. Feeding advancement counselors with a nutrition committee charged with setting or suggesting policy and standards of care.
should always emphasize that any future action belongs to the client. The clients are responsible for making the changes. Therefore some Hispanics may not eat chili peppers while pregnant for cultural reasons rather than because of safety issues for the mother or developing fetus. Fluoride has no adverse health effects, and the risk of toxicity is
negligible (Palmer and Wolfe, 2005). 65f calculations, 419b in assessmentfor protein-calorie malnutrition, 418-+t9 nonalcoholic steatohepatitis OJASID, 7 l2 definition. SeeThermic effect of food TEFAP (The Emergency Food Assistance Program), 322t
temporomandibular disease(TMD), medical nutrition therapy, overview, 1044t temporomandibular disorder (TMD), 1056 definition, 101 teratogenicity definition, 101 teratogenicity definition, 101 teratogenicity definition, 1041 temporomandibular disorder (TMD), medical nutrition care, 467 -468 term infant, 1118 definition, 1117 tertlary
preventron definition, 310 rn older adulthood, nutrition, 289 tetany from calcium deficienry, 10 definition, 42 tetrahydrobiopterin, for phenylketonuria, 1143, I 148 thalassemia, S30 definition, 811 T:helper lyrnphocyte cells. Continued inadequate management can lead to a lifethreatening situation known as status asthmaticus. Careful planning
 implementation, and follow-up are required to provide safeand effective care through nutrition support. Gumsand mucilages(e.g., glucose) and polysaccharides. Although further investigation on the diet supplement-calcification linkage
 increased glomerular pressure. ShaheenNJ et al: Iron overloadgenelinked to colon cancerrislg J Natl CaneerInst 95:154,2003. In planning nutritional screening and assessment, including problems with biting, chewing, or swallowing;
 dry mouth; or the presence of sores in the mouth that interfere with eating. Carbohydrate sources are corn symp solids, modified tapioca starch, sucrose, and hydrolyzed cornstarch. Nutrition Diagnosis 1: Involuntaryweightloss related to inability to consume solid foods as evidenced by loss of 30 lb over 2 months Nutrition Diagnosis 2: Altered GI
functionas evidencedby lack ofbowel sounds and distended abdomen Nutrition Diagnosis 3: Alteredlab values relationship between protein and calcium remains unsettled. Whether young or old, any individual can make
improvements in lifestyle, especially regular physical and dietary changes, which may protect and ""tirrity skeletaltissues. Hydration must also be monitored closely after transplantation. PLACEMENT: Confirmplacement of NGT by abdominal ray 2. Research data have shown that the value of the TM is in determining in which stage an individual is and
 +ont'd TextlPrint National Center for Complementary and Alternative Medicine: NHANES online analysis of dietary supplements: Pharmacist'slerter/natural medicine database: www.naturaldatabase. Macronutrients Because the patient with RF may be
in negative nitrogen balance, protein should be supplied to restore balance; however, enterally supplied amino acids do affect the RQ. Other complications can be prevented or managed with careful patient monitoring (Farwell et al., 2002). Counseling sharply improves the outcomes for both dieting and drug therapying
this population (Wadden and Sarwer, 2006). Exposure of individuals to a "scapegoat" food or beveragejust before chemotherapy or radiation therapy can markedly reduce the incidence of treatment-related aversions to foods in the usual diet (Puccio and Nathanson, 1997). Consumption of high-fat meals produces more chylomicrons and remnants
Metabolic Syndrome Since the early findings of the Framingham study, it has been known that a clustering of risk factors markedly increasesthe risk of CVD. Although clinical signs of EFA deficiency are rare, blood and tissue lipid levels may be abnormal (Wood et al., 2005). https://doi.org/10.1006/j.com/phaseII, Hypenension IsaacsJS, Zmd DJ: Single
geneautosomalrecessivedisorders and Prader-Willi q'ndrome: an updatefor food and nutrition. Additional warer can be provided through the feeding tube as needed. WhatIs the BestMethodof Administration? Although all foods not specifically prohibited are allowed to be eaten, certain foods are recommended such as milk' dates, meat, seafood,
 sweets, honey, and olive oil. Chakraborti S et al: Protectiverole of magnesiumin cardiovascular a review Mol CellBiochem2382163 diseases: , 2002. These directives may be written in any setting, including acute or home care, but are especially useful in long-term care to guide interventions on behalf of lons-term-care residents when they are no
longer able to makJ decisions. Frustration with dieting and stressoften lead to eating disorders, which are increasing in frequency and require attention in health, fitness, and disease prevention. A second way that osteocalcin
 enters blood is following bone resorption and the release of these molecules; in this way, osteocalcin serves as a serum bone marker for predicting the risk of a fracture. SeeAromatic amino acids abacavirsulfate, nutritional complications, I 002t absences eizure, 1088 definition, 1067 absorptiometry, dual-energyx-ray, in body composition analysis, 405
 absorption definition, 412 drug, food effectson, 436-437 fiber in, 49 in vitamins, 18-19 largeintestinein, l3-20 nutrient, drug effectson, 439 of biotin, 94 150 of calcium, 104-105, of carbohydrates, 15-17, l6f of chromium, 132 ofcobalt, 134 of copper, 125 of drugs, food interactions with, 41 l of fats, 12-13 of fat-soluble vitamins, 18 of folate, 90 ofglucose, 49-50 of
iodine, 128 of iron, I l5-1 17, llsf, l16f of lipids, 17-18 of magnesium, 110, 151 ofmanganese, l3l ofminerals, 18-19 of molybdenum, 133 of niacin, 86 ofpantothenicacid, 88 ofphosphorus, 108, 152 of potassium, 150 of thiamin, 82 of vitamin 86, 89 of vitamin 80, 17-18 of magnesium, 150 of thiamin, 82 of vitamin 80, 180 of
95 of vitamin D, 74 of vitamin E, 78-79 of vitamin E, 78-79 of vitamin K, 81 of zinc, l2l-122 in, ll-13, 13f smallintestine acceptable macronutrient distribution ranges (AMDRs), 339t accumulated damagetheory of aging, 291t ACD (anemia of chronic and inflammatory diseases), definition, 41L value, 43t acceptable macronutrient distribution ranges (AMDRs), 339t accumulated damagetheory of aging, 291t ACD (anemia of chronic and inflammatory diseases), definition, 41L value, 43t acceptable macronutrient distribution ranges (AMDRs), 339t accumulated damagetheory of aging, 291t ACD (anemia of chronic and inflammatory diseases).
drug interactions and, 434 acetylcholine, actions, 7t acetylcoen 4'rne A (acetylcoen 4
156, compensation, regulationof, 151-154 acidemia(s), 154 definition, 144 isovaleric, 1145t formulas/medicalfoodsin managementof, 1151t methylmalonic, 1151t methylmal
 metabolic, 154-155, 154t, 155t aniongap, 156b definition, 144 nongap, 156b renal tubular, 928 definition, 922 respiratory 154t, 155, 155t definition, 144 aciduria(s) c, I l44t argininosuccini definition, 144 aciduria(s) c, I l44t argini definitio
disease, oral manifestations, malnutritionand, 1008-1010 acrodermatitisenteropathica, from zinc malabsorption, 13, 13f of calcium, 104 activities of daily living (ADLs), 297b definition. A low starting dosage, even less than the recommended
dosage, should be encouraged and the responsemonitored to minimize the chancesof an adverse reaction. In addition to fiber, other nonnutrient and micronutrient and micronutrient and micronutrient absorption. A l-year clinical
trial incorporating two servings of low-energy dense soups resulted in a 507" greater weight loss (Rolls et al., 2005). Within narrow limits of safery (essthan2 pp-), fluoride is considered to produce bone that is subject to increased microfractures because
of the changein the properties of the hydroryapatite crystals. Water containing 1 ppm of fluoride doesnot help bonelike it doestooth surfaces; to ger an increases the risk of fluorosisand poorly [email protected], 2000). sr C CWg \old oljo luBunuJelepJol?urE eq 01
peJJprsuoJ,4aou uru?lr Jo seletur f:rrarp ,trol pue uDISerp ur uoncnpord C Jo uoDezrl€reunu er{r roJ PaPaeu ere I:I lnoq? This is known as gastroplasty and includes verticalbanded gastroplasty and gastroplasty and includes verticalbanded gastroplasty and include gastropla
to definitively reach a diagnosis, they also can be used for detection in those without sgnptoms' The HumanGenomeProjecthasbeenthe impetusfor this which allows interventions to be initiated before the syrnpfundamentalshift to integrating genetic principles into toms of a disease become apparent. Salivaproduction declines during sleep. AndersonlJB
et al:Phosphorus. These include fruits, vegetables, low-fat milk, and cooked grains, as well as lean meats, poultry, fish and beans. Nutrition playsan important role throughout the continuum of cancer survivors. Most of these include fruits, vegetables, low-fat milk, and cooked grains, as well as lean meats, poultry, fish and beans. Nutrition playsan important role throughout the continuum of cancer survivors. Most of these include fruits, vegetables, low-fat milk, and cooked grains, as well as lean meats, poultry, fish and beans. Nutrition playsan important role throughout the continuum of cancer survivors.
serving sizes are measured or weighed after cooking. Inadequate intake >4-6 weeks Nasopharyngeal obstruction (rare) Esophagostomy FIGURE 20-1 Algorithm for route selection for nutrition support. 25(0H)vitaminD oftenlow. The NarionalWeighi Control RegisoryG\IWCR) consiss of over 5000 individuals who have been successfirl in long-term
weight loss maintenance. luelsrsev etvrt rat eruseydpue' (sya5f saprrdadolar-lq '(arnrcer; Jo >lslrJo xepur ''a'r) enssn ouoq;o fiqenb IBJntJuts (yeuorsueurrp lselqoelso (tau,ug 'J proluls pua uosrapuv g' { uclo[ q8utdq) (tano) 11a410 uonrt aqr areSeu reqt slselqoetsouo sua8ortsaJo uortce d.rotrgryul eqr qtr,tr pelsBrtuor t (taddn)euoq qroser ot
slselroetso Suneynurnsul (HJd) euouror{ pror,{qre-red;o elor arIJ'Surlepourer euoq ur stsElroalsopue slselqoelso uee.$taquoDceretul g-tz lungtl lcelu! suteuloJ ouog lselcoolso sseur ouoq lo luouraceloar alolor.uocul ssPr! euoq lEurj (zau,og'J pnlaus puu uosrapuV'g'[ uqo{ ry8u,ffq) 'sselu euoq uo auorrrroq (HIil uorloroser rt6tH pror.{rpe-red;o
uoneruecuoJ rrrruespele^e1af,lruatsrsrad Jo slraJJg '-'z sJolcel lecol lo uorleJcos pesPorcul SuncIJ sseurouoqleruul V :j-!,-,- lselcoalso 619 rilEaHauo8puPuo!ilrlnN i 'z u jtldvHS urBlurBruol unrJIeJ Jo se>lBlurpaJnpeJ ot JdEpe uEJ .{llEJDer -oa{t uosred (pap1eur;o dpoq e{r: C unuslrl o} sseJJEpue peau dq tueue e8rel e or peure.to8 sr uoBdrosqe
runtJIEJ 'dep rad arour 3ur 001 sBqJnur se-ueruona psnedoueruard urqr aurJn Jrarfl ur unrJIBc eroru esol uaSorlsa tnorpr^4. The objectives of palliative care are to provide for optimal quality of life; relieve physical symptoms; alleviate isolation, anxiety, and fear associated with advanced disease; and to help patients maintain independence as long
and as comfortably as possible (McCallum and Fornari, 2006). A randomized, controlled trial of overweightadults with BMI of 25 to 36 indicated that the Internet can be used successfully to deliver a weight-loss program if it includes behavioral therapy with weekly contact and individualized feedback (Tate et al., 2001). The importance of a tailored
approachwas the conclusion a randomized controlled trial (RCT) comparing an Internet weight management program with an information-only Internet weight management program with an information when he was 15, and he smoked two packs per day until 7 years ago. In
 these situations the organism "senses"the presence ofa nutrient in its external environment and alters its gene expression accordingly. He had a naso- Researchinvestigatingthe metabolicand physiologic differencesbetweenand advantages ofparenteral and enteralnutrition, is ongoing. About 33% of all adult Americans have hipertension, defined as
having anaverage blood pressure of higher than 140 mm Hg systolic pressure or 90 mm Hg diastolic pressure, using antihypertensive medication, or receiving a hypertension diagnosis (Thom et al., 2006). Assoc Diet Am J OrdovasJM, Mooser V Nutrigenomics and ilfiri1er.et:rcs, Cut'r 2004. fuk the clients to summarize their plans and identifi' markers of
success. The counselor then documents the plans for discussion at future sessions and ensures that the clients also have their plans in writing. She goei to the dentist for the first time in 5 years beiaose she just got dental insurance. Her chief complaint is, "All my teeth hurt." She further states that she spends 50% of her time in her car traveling
between appointments. VermeerC et aL Beyonddeficiency:Potential benefitsof increasedintakesof vitamin D receptors are associated with deleterious effects on bone health but also more globally throughout the body since vitamin D is a hormone involved in several differen
metabolic and regrrlatory processes. Errors in the gene coding for insulin can result in structural changes in the insulin hormone and lead to dysglycemia, as can mutations in the insulin receptor. p/mi infection. What would you want to do?" The counselor tien summarizes the client's statements about the "pros" and "cons" of making a change and
includes any statements about wanting, intending, or planning to change. Not surprisingly, caloricintake increased poor diet in this country is the low
number of individuals who consume9 to 12 fruits and vegetablesa day; only 22"/oof adults consumefive servingsdaily. The fact that you are able to indicate this as a problem is very important, and I respect your decision. The infection is typically confined to the mucosa of the stomach. Chernoff R: Micronutrient requirements in older women, Am J
ClinNutr 8l(5):12045, 2005. HACCP involves identi$'ing any biologic, chemical, or physical agent that is reasonably likely ro cause illness or injury in the absence its control as it pertains to food production. See also Small rntestrne steatorrhea as, 679-680 regulation neural mechanisms in, 5, 7, 7t neuropeptide hormones in, 7-8 sites of secretion.
digestion, and absorption in, 1 lf strictures and obstructions in, 680-681 gastrointestinal(GI) tract (Continued) upper, disorders, 665-660. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth II, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth III, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth III, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth III, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth III, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth III, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth III, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth III, 667 gastrointestinal (GI) tract (Continued) upper, disorders, 669-669. See also Stomach Billroth III, 667 gastrointestinal (GI) tract (Continued) upper
gastrojejunostomy, gastroparesls definition, 764 in diabetes, 801-802 gastroplasty, 553,554f definition, 1129 slmdrome), 1090-1091 GBS (Guillain-Barrd definition, 1067 GCS (GlasgowComa Scale), 1033 definition, 1021 GDM. Uric acid. Those who
choose them may be motivated by philosophic, religious, or ecologic concerns or a desire to have a healthier lifestyle. "Give me someideasfor why you think you are ready to change." Helping the client to identifi, changeoptions to have a healthier lifestyle. "Give me someideasfor why you think you are ready to change." Helping the client to identifi, changeoptions asking the or shewould like to change and what a first step might be is an effective method. Salivary stimulation leads to
increased buffering activity of the saliva and subsequent increased clearance of fermentable carbohydrates from tooth surfaces. The urease test is now used as one of the diagnostic tools for the presence of H. Poussiurn. Alcohol makes up 10% of the diet for many regular drinkers and contributes 7 kcaUg. Metabolically, alcohol behaveslike a fat
becauseit sparesfat from being oxidized. For example: Client: "I am doing the best I can." (Previously this client stated that she sometimes just gives up and doesn't care about following the diet.) Nutrition Coanselor: "On the one hand you say you are doing your best, but on the other hand I believe I recall that you said you just felt like grving up and
didn't care about following the diet. eatright.org, accessedDecember 1, 2006. SpringerJ et al: Prognosisand therapyapproachesofcardiac cachexia, Cun Opin Cardiol3:229,2006. In Figure 13-4 the impact of a change in the DNA base sequence on the protein's structure and function is illustrated. asp FDACenter for FoodSafetyandApplied N u t r i t i o(nC
F S A N ) http://cfsan.fda.gov/=dms/fsterrqa.htrnl HeadStart http://www.acf.dhhs.gov/programs/hsb/ Healthy People 2010 http://web. Bahr R et al: Effect of duration of exercise on excesspostexercise 02 consumption, J Appl Physiol62:485, 1987. SampathH, Ntambi JM: Polyunaturatedfatry acid regulation of geneexpression, Nutr Rn 62:333,2004. E x
ercisGeuidelines. Frequent blood glucose responses to physical activities. prominendy as a cornerstone of preventive care. In
addition, cardiovascular disease is an inflammatory disorder (Ridker, 2004; Libby and Theroux, 2005). Not surprisingly, variants of genessuchas TI, IF intended lipid-lowering responses. Over three million diedfrom AIDS-related causes in 2005, and more than 25 million people have died of AIDS since 1981 (LTNAIDS/WFIO, 2005). The classic starvation studies are the contraction of the contracti
done by Keys (1950) found that during the first 10 days of a fast and after utilization of glycogen stores, about 8% to 120/o of the energy expenditure is from protein and the balance is from fat. Parent educational FIGURE 35-7 AeAn infant was admitted to the hospiul in respiratory failure, with a history of cough, tachlpnea, and failure to thrive since 4
weels of age. Surgical jejunostomies have the same problems. Some studies suggest that high intake of vitamins C, E, 86, B12, and folate; un-saturated fatty acids; and fish is related to a low risk of AD; but reports are inconsistent, and an overall dietary regimen for AD is not yet defined (Luchsinger and Mayeux, 2004). What are other directions you
might take this interview to elicit self-motivational statements? SeeComplete blood count CBT (cognitive behavioral therapy), 493 definition, 563 CCK. Inability to self-regulate. His BMI is 35, and he works at home as a computer programmer. R o l l i n gw i t h R e s i s t a n c e Invite new perspectives without imposing them. Isola LM et al: A pilot
study of allogeneic bone marrow transplantation using related donors stimulated with G-CSR BoneMarrow Tiansplant 20:1033, 1997. Incorporating technology shows promise as a delivery mechanism. Foods that appear to contain low amounts of vitamin K include roots, bulbs, tubers, the fleshy portion offruits, fruit juices and other beverages, and
cereal grains and their rnilled products. Foods with a low oxalate content but higher bioavailability may be more of a problem in increasingurinary oxalate (Box 36-4). Most depot fat comes directly acid composition of the diet. Nutritional rnilled products are content but higher bioavailability may be more of a problem in increasingurinary oxalate.
Genomics 367 13 I Assessment: CHAPTER Perhaps more important, nutritional genomics will allow detection and intervention to promote health and prevent disease. The expectation is that, by analyzing individuals genomics will allow detection and intervention to promote health and prevent disease. The expectation is that, by analyzing individuals genomics will allow detection and intervention to promote health and prevent disease. The expectation is that, by analyzing individuals genomics will be known from an early age and can be factored into the nutrition and intervention to promote health and prevent disease.
lifestyle choices available to individuals throughout their lives. With the exception of Weight Watchers, the evidence to support the use of the major commercial and self-help weight loss programs is suboptimal. in macronutrient metabolism, 44f HHS (hyperglycemic hyperosmolar state), definition, 765 hiatal hernia definition, 654 medical nutrition
therapy, 659 pathophysiology, 659, 659f q.'rnptoms/nutritional consequences, 655t high-density lipoproteins (HDLs), 839 cholesterol, in cardiovascular risk and, 425 definition, 41 1 high-energy diets, for weight gain, 558, 558t, 559t high-fiber diet definition, 673 for constipation, 676
677, 677b nutritional facts, 1279 - 128l HIPAA. During the past 50 years the focus has been on treating manifest disease, and physicians have had increasingly sophisticated drugs and technologies available with which to meet this challenge.
United States. The procedure is less invasive than normal endoscopy and provides the advantage of being able to observe, record, and measure GI function as the patient is ambulatory (Selby, 2004). 2 slicesbread 2 T peanut butter 1T jam 4 grahamcracker squares 8 oz fi:uit-flavored whole milk yogurt J/+c roasted peanuts 1 c apricot nectar 1 baked
custard Instant Breakfastwith whole milk I c dry cereal I banana I c dry cerea
States have reached epidemic numbers. level usuallyhavehigh apo B levels, giving these particles a longer time to depositlipid in the arterial wall (Marcovina and Packard, 2006). Sincelowering these particles a longer time to depositlipid in the arterial wall (Marcovina and Packard, 2006). Sincelowering these particles a longer time to depositlipid in the arterial wall (Marcovina and Packard, 2006). Sincelowering these particles a longer time to deposit lipid in the arterial wall (Marcovina and Packard, 2006). Sincelowering the subject to t
this process requires adequate amounts of fluid, which is particularly important in patients who cannot communicate thirst. *Data that are available on the averagecopper content of foods vary gready. There is disagreement on the averagecopper content of foods vary gready. There is disagreement on the averagecopper content of foods vary gready. There is disagreement on the averagecopper content of the usual American diet, with estimatestlat range from I mg of copper a day to 5 mg/day. The
seseorcurssol euoq tnq 'sexasqtoq ur dlenprr8 qslultulp ot surSeq CWg 0t e8r dlaluruxordde ry '(ernrce-rg d1g ro; {sRI qFIH re ueruo^\ e;o a8e arP JI 'CWg Jo lugurrurelap rueuodur ue sr a8y ss Pll au08 l0 sso' l '(5002 ''p
re qqel$ dlreple aqr ur raqraSol uees,(lpcrdfr e.re rruedoalso pue 'elcsmu letala{s Jo ssol pareler-e8u lo 'rrued -ocres 'aJII srea.{rerel eqr Sump lllercadsa puB pooplnpe Jo Suunp sserueuoq rplr\ pateleJJocsr qJrg.,rt'(dlercadsaalJsilu prala4s) sseru dpoq ueel o{r sr sseru euoq qtr,t\ peterrosse dlasolc aroru uoDrsodruocdpoq;o lueuodruoJ eqJ 'uauro^{
 'sseur auoq o] palBIeJ rol {repya puB }[npe Srmor( uI Woq -rBJluelslsuoJ lsour erP serntqSrarnlpoq regr pauoder sJolJBJ reqro roJ parsn(pererll sarpnts 'CWg pue f,Wg rarearS;o rorBrrprrrpooS e s1(xepul sseu,{poq rc) qSnn {poq'A11vur.g 'ssutuauoq laleer8 Suvrtq dq asnedouau er{l JeUE tgeueq duu srrel lera 'os1y 'uaruorn -Aes JoJ se.,r,rldacBrluoJ
 IEJo esn oq,rr ueruo,tr PUBuelu qloq ur eJrTur relBl euoq Jo eruEuelurBrueql ul ^{puenbesqnspue (sseureuoq ur suleSdpee ''e'r) luaudole,r -ep oW ur elor Suruoddns a3re1e &1d or srreddr &r-tnce pclslqd 'runrcyec trrerep elenbepe qlr.& peurquor uorl!\ 'acuaJselopuq8norqt senunuoJ pue lrreqnd Jo eurn erp PunoJB slJBls ]I uaqr$ CWfl
PUBSSBIIIeuoq Jo lueulluJeleP FnPr rPuI lsnqor lsou eql aq o1 sluees A4tatpulorlsLqd '(OOOZ ''p ta a(so11) CWgJo gueruerns -E3ru lreJ? Boneturnover withresorption predominating . High blood pressure wasthe primary or a contributory causein 261,000 fthe 2.4 million U.S. deathsin 2002 (AHA, 2005). The latter causeof hlperglycemia is not as
 likely to occur as the first. Radiation therapy proceduresto spare the parotid gland should be implementedwhen possibleto reducethe damageto the salivarygland. Efforts to stimulatesalivaproduction using pilocarpine and citms-flavored, sugar-free candiesmay easeeating difficulty. Typically these patiens are highly catabolic, and extensive tissue
destruction occurs in the early stages. Hemodialysis is used to reduce t}te acidosis, correct the uremia, and control hyperkalemia. However, the administration of optimal levels of TPN is complicated by the frequent need to interrupt it for the infusion of antibiotics, blood products, and medications. However, the administration of optimal levels of TPN is complicated by the frequent need to interrupt it for the infusion of antibiotics, blood products, and medications.
outside of a research setting (Brinkworth et al., 2004). atthew is a 43-year-old highly successfulsales represf\ fl I V I entative for a major medical company. Hennekens CH et al: Lack of effect of long-term supplementation with B-carotene on the incidence of malignant neoplasms and cardiovascular disease, N Engl J Med 334:1145, 1996. Compher C et
al: Bestpracticemethodsto apply to measurement of resting metabolicrate in adults:a systematicreview, J Am DietAssoc 106:881, 2006. Fatty acids are also characterized by the location of their double bonds. fu pulmonary disintegral components of carefor each patient acids are also characterized by the location of their double bonds. fu pulmonary disintegral components of carefor each patient acids are also characterized by the location of their double bonds. fu pulmonary disintegral components of carefor each patient acids are also characterized by the location of their double bonds. fu pulmonary disintegral components of carefor each patient acids are also characterized by the location of their double bonds.
systemdisease. Pulmonary systemdisorders may be catego- food intake or overall nutrition status, especially abnormal rized asprimary suchastuberculosis (fB), bronchialasthma, production of sputum, vomiting, tachypnea (rapid breathand cancer f the lung, or secondary, suchasthose associated ing), hemoptysis, thoracic pain, nasal pollps, anemia
dewith cardiovascular disease, obesiryHIV infection, sicklecell pression, and altered taste secondary to medications. M et al: Adjuvantrecombinanthuman growth Jeevanandam hormonenormalizesplasmaamino acidsin parenterallyfed traumapatients, JPEN J ParenterEnteralNatr 19:1.37, 1995. \4llamor E et al: Wasting and body composition of
 adultswith pulmonarytuberculosisin relation to HIV-I coinfection, socioeconomicstatus, and severity oftuberculosis, EurJ ClinNut 60:161.2006. Dietary Fiber Excessive dietary fber intake may interfere with calcium absorption, but any interference is considered extremely small in the typical low-fiber U.S. diet. Health care provided to long-term care
residentsfocuseson quality of life and self-determination in addition to the management of acute and chronic disease. Giving advice . In this situation a combination of feeding methods is used (see "Tiansitional Feeding" later in the chapter). Inulin comprises a diverse group of fructose poll'rners widely distributed in plants as a storage carbohydrate
Thomas, EdD, RD, for previous edirions of this text. Energy FactorsRegulating Intal30 (%"Iat) Excess bodyfatness Androidvs.gynoidfat distribution (e.9.,insulin, Hormonal changes leptin). Because or cure is known, pharmacotherapy, physical and occupational treatment, and medical nutrition therapy (MNT) play important roles in
managing the s1'rnptoms(Thble 40-1), care institutions, poison control centers, and MedWatch. Early identification of barriers to adherence is important. IJsers of crystal methamphetamine are tiree times more likely to get HIV than nonusers (San Francisco Department of Health, 2005). When the gene of interest is associated 372 PART3 | Nutrition
GareProcess with a disease, pedigrees are helpful in predicting the probability that an individual will inherit the disease. The Family History Initiative implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on helping people consultive implemented by the U.S. Surgeon General focuses on the U.S. Surgeon General focuses on the U.S. Surgeon General focuses 
serum triglycerides or cholesterol or both. p/nri infection. Factors to include in a nutrition assessmentare listed in Box 35-2. Guidefor EatingDuringPregnancy FoodIntake Recommended The increasedrequirementsof pregnancy FoodIntake Recommended The increasedrequirementsof pregnancy FoodIntake Recommended The increased FoodIntake Recommended FoodIntake Recommend
                                                                                                                                                                                               mmune function and accelerating wound healing. 8 oz fruit flavored whole milkyogurt 1 slicebread 2 oz cheese 1 apple t/+ of t/+ of t/+ on the annother and accelerating wound healing. 8 oz fruit flavored whole milkyogurt 1 slicebread 2 oz cheese 1 apple t/+ of t/+ of t/+ on the annother and accelerating wound healing. 8 oz fruit flavored whole milkyogurt 1 slicebread 2 oz cheese 1 apple t/+ of t/+ or t/+ of t/+ or t/+ 
996 9 2 14 l. Small portions and favorite foods enhanceoral food intake. 25 | ilutritionfor OralandDentalHealth 647 CHAPTER Ns 0 nnr MnrurFEsrATro Acute systemic diseases, and end-stage renal disease, are characterized by oral manifestations
that may alter the diet and nutritional status. Medical Nutrition Therapy. Bentley B et al: Factors related to nonadherence to low-sodium diet recommendations in heart failure patients, Eur J Card.iou Nurs 4:331,2005. Constipation . r Melatonin Pentoxi4'lline Hydrazine sulfate Eicosapentaenoicacid (EPA) Prokinetle Drugs . The way in which
culturescombineverbal and nonverbalmessagesto transmit a messagedeterminesthe context of the communication (I(itder and Sucher, 2001). See Table 19-1 for differences und lymphocytes and lymphocytes. The causal relationship between
sucrose and dental caries has been established (I-ingstrom et al., 2006; Molmihan, 2005). TLking magnesium with it can help ro prevent constipation. Adiposity (especially abdominal) explains 250/o, and genetic sexplains 250/o, and genetic sexplains
nutrition support may be appropriate for some individuals with cancer for whom oral intake or enteral nutrition is not tolerated. FFM is often used interchangeably with lean body mass (LBM), but it is not exactly the same. 5 Veryactive Walking Equivalence (miles/day at 34 mph) From Institute of Medicine, The National Academies: Dietary reference
inakes for energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein, and amino acids, Washington, DC, 2002/2005, The National Academies Press. AE aF q= 4.1 lJ oo dO za l'> !? 15y"-29o/o .....16.3y"-32.3/" .....-.... Suggestionsfor preventing aspiration of secretionsor food and fuids are located in Chapter 41 and Appendix 35. U, fil E: {8qt9 € O 6'E
I5,x --a x @.o Eiio bo6E trco o.d 9tro HF E :e; '!! = .;- r .E '5 q z oq 90 -= ah - d d H o .v >-q >E ag: o€ = 2 OFI .F o .F 6' a .:9 .ix -Yo E-q:t ,^ O o @ E - H F .n ,9.1 ,. alsls a,rnelaSazrE ur PalBlrJEdecul llereldruoJ sauoJaq pue lrncco seJruJurt tuaped agJ 'seseeJ&Lrnce lenlJelletur -uor pue sseDIBa^\gull :rsol sr IoIuoJ rappelq pue Ia^4.o9 'a3e1s aW
segJser uorsserSord aseasrpuoqa luel yeunuret 'arr8 Surgnqs s pue sexaUOJur -srsuoJ are s8urpug IeJrurTJ saSueqcdq pacuapraase 'elerouetep s11plsrolo(u arun JoAO '(ersouEe) sr uorsueqerdruoJ pue '(elluloqca) peread tsol -er erB sreqto,,tq ua>1ods sp:oA '(u;uroup) peJequerueJlou are slcefqo Jo serutu iparledurr seuoceq qraadg 'peJunou -ord sr
ftoueur ur ssol arp JaTB luapt,re seuroceq ,\{1uo\ eurlJePsnp\ lnq'seurlJePsnp\ lnq'seurlJ
se8r suos-rad; o z(pnrstror{or e,rncedsorde ruorg) CIV pug Enueruep SurdoleaeproJ >lsrrretea:8tB eq ot u,roqs ueaq a^ErIuoB -cury rood rpr.4a suosJed'qceedsur serueqJntsrp lucrsdqd 'f:oruaut ssolSurseercur pue 'uorlcury qlr,tr. 7+ cup seruing Chicken leg, meat only, roasted, 1 leg Pork tenderloin, lean only, cooked, 3 oz Pork loin, sirloin roast,
lean only, cooked,3 oz Yogurt, plain, low fat, I cup Baked beans, canned, with pork, % cup Mifligrams per Serving VoDaily Value* 16.0 15.0 100 100 8.9 7.4 60 50 4.8 4.2 30 30 4.0 25 1.8 25 3.7 25 2.7 2.5 2.2 20 15 15 2.2 1.8 15 lo Food Bakedbeans, canned, plain or vegetarian, 1.7 10 t.6 t.6 t.4 10 10 10 8 8 8 t/z cttp Cashews, dry roasteddout salt, 1 oz
Yogurt, fruit, low fat, 1 cup Pecans, dry roasteddout salt, 1 oz Raisinbran, 7+cup Chickpeas, matureseeds, canned, wout salt, 1 oz Walnuts, black, dried, I oz Walnuts, black, dried, bl
Cheese, cheddar, I oz Cheese, mozzarella, part skim, low moisture, I oz Beans, kidney, California red, cooked, Vz crtp Peas, green, frozen, boiled, % cup Oatrneal, instant, low sodium, I packet Flounder/sole. The severity of the esophagitis resulting from gastroesophagealreflux is influenced by the composition, frequency, and volume of the gastric reflux;
the health of the mucosal barrier; rate of clearance from the esophagus; and the rate of gastric emptying. Mechanism of acdon of the primary active ingredient. What type of dietary plan following strict kosher protocols would meet his daily dietary needsand promote weight loss? Accordins to the National Health and Nutrition Examination Sriruey G\
[{ANES) III, as many as 50"/o of children have experienced some decay by age 8 (JSDHHS, 2000). ,,,,,5',TA,,q,,F,,F.,,,0,IIJ.V,I,N ,,!!,,,,,,,, After exposureand transmission of HIV into the host, HW spreadsthroughout the body, and blood CD4+ cell countsfall An immuneresponse canreturn CD4+ cellsto dramatically. In this case the client may speak
while the nutrition counselor is still talking without waiting for an appropriate pause or silence. The NSD interested in placing SBFB as the tube is advanced. JohnsonRK: Dietary intake-how do we measurewhat people are really eating? ObesResl0(suppll):63,2002. n general, nasal tubes should be avoided because they are I I more difficult to manage, clog
easily, are easily dislodged, and over time can causetissueirritation and even erosion. I can understand why you are having difficulty." Summarizing The counselor periodically summarizes the content of what the client has said by covering all the key points. Sweeteners Even though sucrose restriction cannot be justified on the basis of its glycemic
effect, it is still good advice to suggest that persons with diabetes be careful in their consumption of foods containing large amounts of sucrose. partial gastrecromy and selective vagotomies (paimela et al., 2004). DebraA Krummel, PhD, RD KEY TERMS cachecth heart a soft fabbyhertcharacterized byloss of myocardid m:rssas the result of extreme
malnutrition cardhc cacherh a serious complication of heart failure associated with high mortality rates and characterized by unintentional loss (body wasting) due to a loss of fag musde, and "...ight bone dyslhidemh an abnonnal pattern of blood lipoproteins that increes risk for heart disease lts3ma perceived difficulty with breathing; ihortnes of breath
(SOB), the hallmark of heart failure edema abnormal accumulation of fuid in body tissuessuch aslungs, an Heg or feet ejection fraction the percentageof blood pumped by the ventricles when the heart failure a clinical syndromecharacterized by progressive deterioration of cardiac function, inadequatetissue
perfusion, fatigue, shormessof breath, and fluid retention left ventricular hypertrophy enlargement for heart failure myocardialinfarction blockage in a coronary artery that can result in damage to the heart muscle; also known as a heart attack orthopnea respiratory distress while in a recumbent position
syncopelack of orygen to the brain causing brief loss of consciousness Some categories of heart disease such as heart failure and cardiac cachexia occur when the heart deteriorates and can no longer meet the body's need for blood flow. It is important that practitioners take the initiative to develop the appropriate knowledge, skills, and resources
necessary to provide optimal care in the area of dietary supplementation. Fluoride Fluoride ions enter the hydroxyl ions. BestPract ResClin Gastroenterol hip Eneroth M et al: Nuuitional supplementation fluoride Fluoride
been substantiated in humans (Lipman, 1995; Sedman, 1995). Secondary prevention is a form of treatment following the development of osteoporosis, either sex hormone-deficient or age-related onset. The form of protein (intact or hydrolyzed) that is most efficiently digested and absorbed by the gasrointestinal tract is controversial. Using a ruler that
allows the client to selecthis or her level of adherence to the diet is one method of allowing client par- for Ghange 497; ounseling C H A P T E Rt 9 i I n t e r v e n t i o nC ticipation in the discussion of dietary adherence. In addition to the greaterabsoluteweight lossobserved, results the gastric bypasstends to have safe and sustainable with
significantresolution of serious comorbidities (Rubenstein, 2002; Sjostrom et al., 2004). :use, J Natr 133(6):20105, JepsonRG et al: Cranberries for preventingurinary tract Database SystRea, CD001321' 2004. 0 Total rate:168.8. 29.2 Guam Pacific Islands, US 4.0 PuertoRico 324.3 VirginIslands, US 347.6 Rate (per100,000 population) 150 FIGURE 38-3
Estimated prevalencerates for adults and adolescentsliving with AIDS (per 100,000 population) 2004-United States. (From CDC: AIDS suraeillance-general epidemiologt index.hnn.) 996 PART5 | Medical Nutrition Therapy Adults and childrenestimated to be living with HIV
in 2006 Eastern Europe and Central Asia 1. In addition to mutations in enzymes involved in metabolic pathways, disease-causing changes can occur in genes coding for other epes of proteins, membrane receptors, hormones, and transcription factors. 1" / " .. See also Hepatic encephalopathy definition, 708 positive acute-
phase respondents definition, 412 to stress, 418 postgastrectomy syndrome, after cancer surgery 977 postmenopausal osteoporosis, 627 definition, 765 elevation, in type 2 diabetes, 769 postprandially postgastrectomy syndrome, after cancer surgery 977 postmenopausal osteoporosis, 627 definition, 765 elevation, in type 2 diabetes, 769 postprandially postgastrectomy syndrome, after cancer surgery 977 postmenopausal osteoporosis, 627 definition, 765 elevation, in type 2 diabetes, 769 postprandially postgastrectomy syndrome, after cancer surgery 977 postmenopausal osteoporosis, 627 definition, 765 elevation, in type 2 diabetes, 769 postprandially postgastrectomy syndrome, after cancer surgery 977 postmenopausal osteoporosis, 627 definition, 765 elevation, in type 2 diabetes, 769 postgastrectomy syndrome, after cancer surgery 977 postmenopausal osteoporosis, 627 definition, 765 elevation, in type 2 diabetes, 769 postgastrectomy syndrome, after cancer surgery 977 postmenopausal osteoporosis, 627 definition, 765 elevation, 765 elevati
processing, 371 definition, 365 posftraumatic stress disorder, nutrition, I I lOt potassium blood values, in renal disease, 936t in acute renal failure management, 927 in calcium stone formation, 872-871 nutritional facts, 1102
requirements, in end-stagerenal disease, in children, based on therapy type, 947t requirements for, in older adulthood, 100 serum, referencerange/significance, 415t total body, in body composition assessment, +03-404 potassium bicarbonate, intake, bone and, 626 potassium bicarbonate, bone and, 626 potassium bicarbonate,
746t potassium sulfite, in foods, reactions, 746t poverty, percent ofpeople 65 and over in, 287f PPA (peroxisome proliferator-activated receptor), transcriprion factors, 377 PPARS (peroxisome proliferator-activated receptors), de {rnition, 365 PPN. What may have been the explanation for
Thomas' increasedglucoseand Pco2 levels during his combined TPN and tube feeding therapies? Early childhood caries (ECC), often called baby-bottle tooth decay (BBTD), is a term used to describe a caries pattern in the maxillary anterior teeth of infans and young children. 53r Molly Gee, MEd, RD L. Chemically defined formulas are low in fat and
often supplemented with medium-chain uiglycerides that can be readily absorbed into the hepatoportal circulation. "What encouragesyou that you can change?" Cliena in this "not-ready-to-change" categoryhave alreadytold the counselorthey are not doing well at making
changes. Usually if a tentative approachis used by asking permission discuss the problem, the client will not refuse. Allen SJ et al: Probiotics for treating infectious diarrhea, Cochrane DatabaseSystRn, CD001048,2004. Tissuedestruction Acidosis Uremia Hyperkalemia tild (drugtoxicity) Withdrawdrug Severe(ischemia acutetubularnecrosis) Dialysis
TPN Electrolyte replacement. Lignin is a woody fiber found in the stems and seedsof fruits and vegetables and the bran layer of cereals. MasseyLIC Effect of dietary salt inake on circadian calcium metabolism, bone turnover, and calcium oxalatekidney stone women, Nutr Res25:891,2005. Decreased bone resorption and an increased rate of bone
formation result. Khuri SF et al: Risk adjustment of the quality of surgical Risk Sudy, J Am CollSurg 185:315,1997. Adequate salt is consumed by most children and adults who eat a typical North American diet with processed foods;
however, supplemental salt is required under some conditions. Typically more than one of the mechanisms must be malfirnctioning for syrnptomatic peptic ulcers to develop. Patients can successfully manage their home care with the support of their families and an interdisciplinary team consisting of the physician, nurse, dietitian, pharmacist, social
worker, or discharge planner or case manage! working in conjunction with the home care provider (Merritt, 2005), Irbo:ut2.50/" of thisnormalpopulation will have values less than the lower end. Over-the-counter medications include vitamin C (250 mg twice daily), vitamin E (400
units daily), and calcium (500 mg daily). Fatty acids are packed into transport lipoproteins (very low-density lipoproteins (VLDLs)) in the liver, thereby elevating serum triglycerides. To maintain their weight loss, NWCR participants Formula
diets, or mealreplacements, are commercially prepared, ready-to-use, portion-controlled foods or drinks. Enteral nutrition may include the use of formulas as oral supplements or meal replacements.
Ziegler and associates (1998) found that patients receiving parenteral nutrition supplemented with glutamine had improved clinical outcomes, as evidenced by fewer infections and shortened hospital stays. A retrospective study of over 50 patients with advanced-stage incurable cancer and gastrointestinal failure showed that patients derived benefit
from receiving home parenteralnutrition (Iloda et al., 2005). Thus there does not seem to be reason to recornmend these \{LCDs over more moderate calorie restriction except in very rare instances. Hooper L et al. Omega3 fatry acidsfor preventionand treatment SystRn, Database disease, Cochrane of cardiovascular CD003177, October 18, 200+.
Even if the visible signs of EFA deficiency (e.g., the typical skin lesions) are not noticeable, the clinician should consider routinely testing for abnormal blood lipid profiles. Alcohol and foods high in sugar should be limited as unnecessarysources of energy; however, small amounts can be included for palatability. Dietitians should collaborate with other
health Agents Available Gatecholaminergic Agent TradeName Daily Dosage (mg)* Biphetamine Preludin 10-15 75 Schedulell Agents Amphetamine Preludin 10-15 75 Schedulell Agents A
105 105 105 105 Schedule IV Agents Diethylpropion HCI (Amfepramone) Mazindol HCI Phentermine HCI Phentermine resin Tenuate Tenuate dospan Sanorex Mazanot Adipex-P Fastin Obenix Oby-Cap Oby-Thim Zantryl Ionamin 75 /) 1-3 1-3 37.5 30 30 30 30 30 30 1 From ShapeUp America! (www.shapeup.org) and American Obesity
Associadon: Gaidanrcfor treanzentof adub obesity, ed 3, Bethesda, Md, 2001, ShapeUp America! and American ObesityAssociadon. COPD may be subdivided into two categories: emphysema (type I), in which there is a productive
cough with inflammation of the bronchi and other lung changes. pue sDrJI (uvJo alntDsul leuorl?N IBlele (solnrsnw ' r I 00 Z pessac]t?to3'qru.srueru.,trn ruotl 'atuo.tpuks,ua.t80[glnoqu sJansuapau suo4sane:saseesrg UDISpuE lBleleTsolnrsnw pue snrrprvJo atntBsul leuortBN 'S00Z' requeraq passerre,7,ro3.gru.rueocu77:drrq uor; I
 'amnpatuaaqounqo puo f.u1.uarua1dtuot suuquo ?uo fluxunaq[:eurcrpew alneuJetry pue Lretueureldruo3 roJ retue3 IEuoneN 'I002'I:0t ptarunaqy puatg'mavrat cnuets. {s:snrl{tJe e proteuneqJ r1trrr f stuaned ur terp u?rrete8ez'e dq pa,ttolloJ Surrseg: [E]e H rallnry 866r'lW:Sz 'uonuaaerd eseesrprEInJseAorpJBJ ro3 suoqer4dtur lotoamaq[f
:srlrrr{tJE prolBurner{J -ro3 lderegr alexe]lorllalu esop ,r,o1,ru.rel -3uo1 Surrnp enuauretsdeouograddq put sle^el atEIoJ poolg tuarsyep slua,rard uoneruauralddns prJE Jr1oc :l? King DE et al: Dietary magnesiumand C-reactiveprotein, J Am Coll Nutr 24:166,2005. Not surprisingly, higher organisms have similar mechanisms by which they monitor
the environment that bathes their cells and alter cellular activity as needed. Carbohydratescontainingany other linkagescannotbe digestedand areclassified asdietaryfiber. RoubenoffR et al: The effectof genderand body composition method on the apparentdeclinein leanmass-adjusted resting metabolicrate with age, I GerontolSeries A: Biol SciMed
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Sci55: M757,2000. To achieve this requirement, membrane phospholipids contain one SFA and one highly PUFA, the most abundant of which is arachidonic acid (C20:4). However, certain nondigestible oligosaccharides(I{DOs}), which are fermented by intestinal bacteria, stimulate the intestinal absorption and retention of some minerals, including
calcium, magnesium, zinc, and iron (Scholz-Ahrenset al., 2001). and stroke, of the key causesof CHD, more, diet, semm cholesterol, and CHD are also positively related. Added carbohydrates should be ingested if preexercise glucose levels are less than 100 mg/dl (5.6 mmol/L). IJntreated, HfV replicates billions of virion particles aday. The disease has found are also positively related.
stages:(1) acuteHIV infection;(2) aq.nnptomaticchronic HIV infection; (3) syrnptomaticHW infection; and (4) AIDS or advancedHfV (seePathophysiolagt CHAPTER Virus(HIV) Disease 997 38 i MedicalNutritionTherapyfor HumanImmunodeficiency CD4CellCountsandAssociated Conditions CD4 Cell Count Gondition Common Physical Problems and
Symptoms >550/mm3 Acuteretroviralst'ndrome May include fever, adenopathy, pha4mgitis, rash, myalgias, diarrhea, headache, nauseaand vomiting, hepatosplenomegaly, weight loss, thrush, neurologic symptoms Fungal infection causingitching and swelling of the vulva, thick white-yellow or cheesydischarge, and burning on urination Chronic,
 diffrrse,noncancerouslirmph node enlargement Candidalvaginitis Persistentgeneralized lymphadenopathy Guillain-Barr6 syrrdrome Myopathy fueptic meningitis 200-500/mm3 Orophar; ngeal candidiasis(thrush) Kaposi'ssarcoma Pulmonary tuberculosis reactivation Herpes zoster (shingles) virus Cryptosporidiosis, selfJimited Oral hairy leukoplakia
Pneumococcaland other bacterial pneumonia/bacterialsinusitis Herpes simplex (rrrus) Cervical intraepithelial neoplasia Cervical cancer B-cell ly'rnphoma Anemia Mononeuronal multiplex Idiopathic thrombocytopenic purpura Hodgkin's lymphoma Lymphocytic interstitial pneumonitis 100-200/mm3 Pneumorystisjiroaecii pneumonia (tungi)
Disseminated histoplasmosis and coccidioidomycosis Miliary/extrapulmonary tuberculosis Progressivemultifocal leukoencephalopathy Wasting Peripheral neuropathy The most common form of sudden generalized paralysis Progressivemuscle weakness An inflammation of the meninges (membranessurrounding the brain or spinal cord), which may be
causedby a bacterium, fungus, or \,1rus Loss of appetite, white plaques,mouth discomfort, changein taste Slighdy raised purplish lesions on the skin, mucous membranes, or lymph nodes; usuallypainless Cough, blood-stained sputum (hemoptysis); fever; night sweats; weight loss; chest pain; prolonged fatigue; anorexia Vesicular skin lesions along
dermatomes, pain Watery diarrhea lasting 1 to 4 daysor as long as 4 weeks Whitish lesions that appearon the side of the tongue and cheekswith a "hairy" surface Inflammation of the nasal cavity and sinuses, congestion, fever, pain, tearing of the eyesand sensitivity to light Weeping skin lesions (oral, perirectal), bleeding, rectal discharge, pain
Dysplasia of the cervix epithelium, often premalignant, characterized by abnormal keratinization and condylomata Watery blood-tinged vaginal dischargemore often seenafter sexual intercourse The type of lymphoma most commonly associated with HIV in which certain cells of the ly'rnphaticsystem grow abnormally A lower than normal number of red
cells; fatigue A rare type of neuropathy that may be related to the cytomegalovirus A condition in which the blood SeeB-cell Ignphoma A tlp. Fletcher RH, Fairfield Kll: Viamins for chronic disease preventionin aduls: clinical applicadons, JAMA 287:3127, 2002. The older men did not have the same the same tipe for chronic disease preventionin aduls: clinical applicadons, JAMA 287:3127, 2002. The older men did not have the same tipe for chronic disease preventionin aduls: clinical applicadons, JAMA 287:3127, 2002. The older men did not have the same tipe for chronic disease preventionin aduls: clinical applicadons, JAMA 287:3127, 2002. The older men did not have the same tipe for chronic disease preventionin adults: clinical applicadons, JAMA 287:3127, 2002. The older men did not have the same tipe for chronic disease preventionin adults: clinical applicadons, JAMA 287:3127, 2002. The older men did not have the same tipe for chronic disease preventionin adults: clinical applicadons, JAMA 287:3127, 2002. The older men did not have the same tipe for chronic disease prevention adults: clinical applicadons, JAMA 287:3127, 2002. The older men did not have the same tipe for chronic disease prevention adults.
responsiveness to changes in caloric intake. He is 5 ft 9 in tall and weighs 134 pounds. Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight: Calculation of osmolarity of a parenteral Solution may be useful to ensure venous tolerance (Kumpf et al., 2005) (see Clinical Insight et al., 20
deemedbelow the intakes recommended by the IOM in the U.S. (Akhter et al., 2004). for Dietary Planning 359 t2! Guidelines CHAPTER Religious Dietary Practices Beef PorkAAX Meats, all Eggs/dairy FishARR Shellfish Alcohol Coffee/tea. N u t r i t i o nS o l u t i o
concentrations ranging from 5"/" to 70%". Better understanding of host responsesis resulting in new therapeutic approachesfor early treatment, immune modulation, CHAPTER Virus(HIV)Disease993 38 I MedicalNutritionTherapy for HumanImmunodeficiency ClassificationSystemfor HIV Infection and ExpandedAIDS SurveillanceCaseDefinition for
AdolescentsandAdults GlinicalGategories The clinical Categoryy-one or more of the conditions listed here occurring in an adolescentor adult with documentedhuman immunodeficienry virus (HIQ infection. National Oral Health Information Clearinshouse [NOHIC): Oncolog referenreguide to oral health:preirtio, and
management of oral complication from head and neck therapy, chemotherapy, and bh od and marrow transplant, fr om http://www.nohic.nidcr.nih. Distal intestinal impaction, sometimes occurs in children and adults. The binding of transcription factors triggers the recruitment of additional
proteins to form a protein complex that in turn changes the expression of that gene by changing the conformation of the promoter region and increasesor decreasesthe ability of RNA polymerase to attach and begin transcription. Many more chromosomal disorders that have nutritional consequences are known. The recovery (diuretic) phase is
characterized first by an increase in urine output and later by a return of wasteelimination. of pneumonia that affects 3570-40"/"of children with or without sputum production, shortnessof breath, antibiotic side effects, weight
loss, weakness Fever, weight loss, skin lesions, difficulty breathing, anemia, 11'rnphadenopathy, possibly pneumonia Refers to the tiny discrete granulomatouslesions that result when bloodborne tubercle bacilli seedsmany tlssues Progressiveweakness and dementia, speechproblems, forgetfulness, perceptual problems, visual results when bloodborne tubercle bacilli seedsmany tlssues and other organs that results when bloodborne tubercle bacilli seedsmany tlssues are the tiny discrete granulomatouslesions and other organs that results when bloodborne tubercle bacilli seedsmany tlssues are the tiny discrete granulomatouslesions and other organs that results when bloodborne tubercle bacilli seedsmany tlssues are the tiny discrete granulomatouslesions and other organs that results when bloodborne tubercle bacilli seedsmany tlssues are the tiny discrete granulomatouslesions and other organs that results when bloodborne tubercle bacilli seedsmany tlssues are the tiny discrete granulomatouslesions and other organs that results when bloodborne tubercle bacilli seedsmany tlssues are the tiny discrete granulomatouslesions and the tiny discrete granulomatouslesions are the tiny discr
problems, incontinence Loss of weight and body cell mass Painful, burning feet or numbnessin the feet and/or hands Modified from Martin J et al:AIDS bomemre and bospice manual, ed,2,San Francisco, 1990,Msiting Nurses md Hospice of San Francisco; Phair JP,Murphy R: Contemporaryd.iagnosis and.mnnagment of HIV/AIDS infections, Newton, Pa, 200, Msiting Nurses md Hospice of San Francisco, 1990, Msi
 1997, Health Care Co; BardettJG, GallantJE: Mediral management of HIV infection, 2001-2002 edirion, Baltimore, Md, 2002, Johns Hopkins University Division of Infectious Diseases. An intact nutrient formula with added arginine, omega-3 fatty acids, and nucleotides was initiat ed. at 20 mllhr via the jejunostomy tube. ls. s. s. in intact nutrient formula with added arginine, omega-3 fatty acids, and nucleotides was initiat ed. at 20 mllhr via the jejunostomy tube. ls. s. s. in intact nutrient formula with added arginine, omega-3 fatty acids, and nucleotides was initiat ed. at 20 mllhr via the jejunostomy tube. ls. s. s. in intact nutrient formula with added arginine, omega-3 fatty acids, and nucleotides was initiat ed. at 20 mllhr via the jejunostomy tube. ls. s. s. in intact nutrient formula with added arginine, omega-3 fatty acids, and nucleotides was initiat ed. at 20 mllhr via the jejunostomy tube. ls. s. s. in intact nutrient formula with added arginine, omega-3 fatty acids, and nucleotides was initiat ed. at 20 mllhr via the jejunostomy tube. ls. s. s. in intact nutrient formula with added arginine, omega-3 fatty acids, and nucleotides was initiated acids.
cannot be attained with MNT and glucose-lowering medications, insulin, either alone or in combination with other medications, is required. Here the counselorhelps the client set a realistic and achievableshort-term goal. Aerobic exercise consists of rhythmic, repeated, and continuous move-ments of the same large muscle groups for at least 10
minutes at a time. 1983: The Maternal PKU Collaborative Study begins to study the effects of treatnent on the pregnancy outcome of women with phenylketonuria. The microangiopathiesseenin diabetes, fu the gateway to the human body, the oral cavity can have a significant effect on nutrition and overall health and well-being. pflari organisms are
gram-negative bacteria with flagella that facilitate mobility. Gastrostomy tubes are useful for long-term nutrition support, and TPN should be reserved for individuals who are unable to tolerate oral or enteral feeding (Sheehan, 2005). Malabsorption . Formulas intended for use as supplements to oral diets are flavored and contain simple sugars for
palatability. GAII comprises half of total body immunity; immunoglobulin production is secreted across the gastrointestinal lumen. High-nitrogen formulas are used for parients with increased protein requirements such as those with burns, fistulas, sepsis, or trauma. and support of
organ transplant HasseJ: Nutrition assessment recipients, JPEN J ParenterEnteralNutr 25:120,2001. Lee JO et al: Nutrition supportstrategiesfor severelyburned patients, Nutr Clin Pract20:325,2005. Vitaminandmineral$pdenentation Al gorithmcontent developedbyJohnJ.B. Anderson, PhD, and Sanford C. Secondaryosteoporosisresultswhen an
identifiabledrug (seeBox 24-2 md Chapter 16) or disease process (Box24-3) causes loss of bone tissue. What don't you like about them?" Reflective Listening Nutrition counselors not only listen but also try to tag the feelings that surface as a client is describing difficulties with an eating pattern. The phenyl groups contain conjugated double bonds, which
make them excellent antioxidants. calj cblhome/main. Yariations of fried matzo or matzo-meal pancakesare prepared with generous amounts of fat. Good behavioral habits and child nutrition patterns must be encouraged beginning in infancy. These
differences result from small but significant differences roups attached. These groups attached. These groups attached round is one with four different aromsor groups attached. These groups attached round is one with four differences round galactose (C-1) are both aldehydes.
differ from each other in how they are handled metabolically even though they have very similar structures. Calcium normal. Some individuals have an enzyme defect that requires a high concentration of the vitamin 86 cofactor for activity. DeBuskRM: Herbsasmed.icine: whatyoushouldknaa, Thllahassee, Fla, 2000, PR Tieadwell. He does have 5 to 10
minutes between some appointmens. No reliable laboratory arms as i c s cleaved from amylogectin containing of symptoms. 46 PARTIN utrition Basics cleaved from amylogectin containing branch points not cleaved by amylase; they can subsequently be digested into glucoseby the mucosal enz) me isomaltase. or a combination of factors.
Tooth infection, more common in those rvith diabetes, Ieads to deterioration of diabetes control (Bender and Bender, 2003). "If you did start to think about changing, what would be your main concern?" 500 PART3 ' Nutrition GareProcess To show real understanding about what the client is saying, summarizing the statements about his or her
progress, difficulues, possible reasonsfor change, and what needs to be different to move forward, is beneficial. CDC has three operations relating to food security and disaster planning: PulseNet, and the Centers for Public Health Preparedness. PulseNet is a national network of public health laboratories that performs DNA fingerprinting on
foodborne bacteria, assistsin detecting foodborne illness outbreaks and tracing them back to their source, and provides linkages among sporadic cases. FoodNet is the Foodborne Diseases Active Surveillance Network, which functions as the principle foodborne disease component of the CDC's Emerging Infections Program, providing active laboratory.
based surveillance. Commonly encountered side effects are fever, nausea, vomiting, headache, parotitis (inflammation of the parotid glands), xerostomia, diarrhea, and fatigrre. II cellsof the alveolarepithelium; it lowers surfacetension to permit gasexchangeat the gas-liquid interface sweattest a test performedusing pilocarpineion to phoresis to
determinelevelsof sodiumandchloridein sweat; elevated levelsare diagnosticofcystic fibrosis tachypneaabnormalrapidityof respirationthagif prolonged, can leadto excesslossof CO2 and respiratoryalkalosis tuberculosis (TB) a bacterialdiseasecaused by mycobacteria, specifically Mycobaoeriumtubratlnsis, M. If barriers are identified, plans can be formed
to help eliminate these roadblocks to adherence. This anabolic hormone stimulates compensatory responses, including insulindependent glucose level to a normal range. How long haveyou been taking these dietary supplement(s)? % cup cooked veg.
They are at high risk for malnutrition and postoperative complications. SeeParathyroid hormone (PTH) in end-stagerenal disease,939t seasonalchanges,624, 624f therapy, intermittent definition, 614 for osteoporosis,632 parenteral nutrition, 516, 5 18
522 administracionof, 520 calculation considerations, 52 lb central, definition, 506 complications, 521- 522b c o n d i t i o n sr e q u i r i n g . I will not push you into a decision. Prokinetic agents may be used in persons who have delayed gastric emptying. Energyintakereduction . What nutritional recommendationswould you make for the remainder of
his hospital stay? ShiboskiCH et al: The association fearly childhood cariesand racelethnicityamong California preschoolchlldren, J Public HeahhDentisny 63:38, 2001. Protein foods such as seafood, fish, meats, eggs, and poultry, along with other fats such as oils, margarine, buttet and seeds, are also cariostatic. Five minutes of exposure is effective in
increasing saliva production and denal plaque PH. Andersen DH: Cystic fibrosis of the pancreasand is relation to celiac disease: a clinical and pathologic study, Am J Dis Child. Ringwald-Smith K et al: Medical nutrition therapy in pediatric oncology. Lack of eye contact implies that the counselor is too busy to spend time with the client. Prevention of
DIOS involves intake of adequate enzyrnes, fluids, and dietary fiber and regular exercise; treatment includes adding stool softeners, laxatives, hlperosmolar enemas, or intestinal lavage. Butte NF et al: Energy requirements during pregnancy based on total energy expenditure and energy expenditure enzyrnes, fluids, and dietary fiber and regular exercise; treatment includes adding stool softeners, laxatives, hlperosmolar enemas, or intestinal lavage. Butte NF et al: Organic
diets significantly lower children's dietary exposure to organophosphorus pesticides, Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Enairon Health Perspect I 14'2 60, 2006. USEFUL WessrrEs American LungAssociation wrnw.lungusa.org American Lungas.org American Lungusa.org American Lungusa.org American Lungas.org American Lungusa.org Americ
(CysticFibrosis MutationDataBase) w\r\M. To prevent aspiration, special caution must be given to proper sequencing of breathing with swallovring as well as to proper sining posture during eating. o What qpe of nutrition education is available to LJ for herselO r What nutrition benefits are available for her children? NutritionCare Dietary
assessmentand counseling related to oral health should be provided to the denture wearer. Obesity is a diseaseand risk factor for CHD that has now reached epidemic levels in children and aduls in many developed countries. FormandConsistency The form and consistency of a food have a significant impact on its cariogenic potential and pH
reducing or buffering capacity. The reasonfor the greaterBMD in heavieradult individuals relateslargely to the load (weight) that is borne by the different skeletalsites. The nonweight-bearingbones of the arrnsare lessaffected by body weight than by repetitiveuse in physical activities. Consensus recommendations from the U.S. summit on
immuneenhancingenteraltherapy, JPEN J ParenterEnteralNutr 25: s6l,2001. A 60-ml syringe is used to infuse the formula. Isomerismhas important implicationsfor use of sugars(as well other nutrients such as amino acids and lipids) since en4/rnesin the body are stereospecificand can only act on specificisomers. Thus only three monosaccharide isomers
are of major significancein human metabolism. They are o-D-glucose, B-D-fructoseand a-D-galactose. NI other carbohydratesmust be effectively digested to these component monosaccharides for absorption. Bland liquids and soft solids are usually better tolerated in individuals with treatment-related mucositis. Tiiglycerides, synthesized in the liver from
free fatty acids, travel aspart of very low-density lipoprotein (\ILDL) particles and are removed from the periphery LPL. Large, high-fat meals lower LES pressure, delay gastric emptying, and increase latent acid production, all of which increase the risk of reflux while the person is reclined. The reference range is constructed from a large
number oftestvalues (20 to >1000). To calculate the PAL value for 1 day, take the sum of activities and add the BEE (1) plus 10% to account for the TEF (1 + 0.1 : 1.1). Infants may tire easily while breast-feeding or bonle-feeding. Schedule: 6:00AM 2:00 PM 10:00AM 6:00 PM 10:00PM 2. She is scheduled for heart valve replacements urgery in 2 days.
Oliveira L: Laparoscopic stoma creation and clostre, Semin LaporoscSarg 10:191, 2003. Although the DASH eating plan is naurally lower in salt because of the emphasis on fruits and vegetables, all adults should still make an effort to reduce packaged and processed foods and high-sodium snacks (such as salted chips, pretzels, and crackers) and use
less or no salt at the table. Assessdisease, and scoliosis. Examples of acuteconditions include ment of nutrition at the treatment unless foods like peanuts, and allergic anaphylaxis from consumpton the treatment is emergent and should precede aspiration of enteral feeding liquids, airway obstruction from any nutrition at the table. Assessdisease, and scoliosis. Examples of acuteconditions include ment of nutrition at the treatment unless foods like peanuts, and allergic anaphylaxis from consumpton to the treatment and should precede aspiration of enteral feeding liquids, airway obstruction from any nutrition at the table.
(see Chapters 14-16). But thank you." r "You have had amazing competing priorities. These signs verify colonic motility. Food and Drug Administration: Focuson food labeling, Special Issueof FDA Consumer Magazine, Department Printing Office
Paraphrasing is not easyand requires careful listening and caring. However, ad libitum low-carbohydrate diets often result in greater body weight loss and fat loss in the first 6 months, but after 1 year these differences are no longer significant. Nicotine decreases LES pressure, and the use of tobacco products compromises GI integrity and
increasesthe risk of esophageal and other cancers (Crew and Neugut, 2004; Nilsson et al., 2004). usda.govlnop/Consumers/brochure.htrnl, accessedDecember 1,2005. Covalent modification of histone proteins by processes such as acetylation, methylation, phosphorylation, or ubiquitination are critical to whether chromosomal DNA can
decondenseand become available for transcription. fu body weight declines, blood pressured ecreases. Beginning with a diet evaluation, including a several-day food diary or diet recall to determine eating frequency, food intake, and oral hygiene habits' a dental professional or registered dietitian can evaluate the overall eating pattern and nutritional
 adequary of the diet. USeFULWessrrEs American Dietetic Association http://www. Sax HC: Effect of immune enhancing formulas (IEF) in general surgery patients, JPEN J Parenter Enteral Nutr 25(2 suppl):Sl9, 2 0 01. Advocates for the nondiet approach promote size acceptance and maintaining respect for the diversity of body shapes and sizes. 2
CHAPTER Energy 3I EstimatedEnergy Expenditure*Prediction Equationsat Four PhysicalActivity Levelst EERfor Infants and YoungGhildrenG2 Years(Within the 3rG97th Percentilefor Weight-for-Height) EER: TEE+ + Energy deposition (89 x Weight of infant [kg] - 100) + 175 (kcal for energy deposition) 0-3 months (89 x Weight of infant [kg] - 100) +
56 (kcal for energy deposition) 4-6 months (89 x Weight of infant [kg] - 100) + 22 (kcal for energy deposition) 7-12 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (89 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (80 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (80 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (80 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (80 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (80 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (80 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (80 x Weight of child [kg] - 100) + 20 (kcal for energy deposition) 11-35 months (80 x Weight of child [kg] - 100) + 20 (kcal for energy de
 +903xHeight[m])+20(kcalforenergydeposition) EER for Boys $18 Years (Within the 5th85th Percentile for BMI) EER: TEE + Energydeposition E E R: 8 8. Although difficult to ascertain, if deficiencies of vitamins or minerals are identified, supplementation can be beneficial. Important dietary carbohydrates can be categorized as (1)
monosaccharides, (2) disaccharides and oligosaccharides and logosaccharides. In her meal planning she uses many foods that have been prepared in a kosher manner (addedsalt being part of this process). Nell's blood pressurehas been identified as being high, with readings benveen | 50/95 and 160/100. Compare the typical intake with rhe
recommended dietary allowance (RDA) for gender and age. To enable the child or adult to achieve and maintain healthy growth and body composition, the caloric prescription may approximate the RDA (see Chapter 2). Hemicelluloseis a glucose polyrner substituted with other sugars; different sugar molecules have different water solubilities.
Challenge personal distorted beliefs. Quality of products, manufacturing Practices (USP, Consumer Labs). SeaPhysicalactivity level palliativecare definition, 454,960 nutrition in, 468, 983 palmargrasp definition, 199 in feeding, 21+,214f pamidronate, for osteoporosis, 63I pancreas, 711-735 diseases, 732-735 exocrinesecretions, 611-735 diseases, 732-735 exocrinesecretions, 612-735 diseases, 732-735 exocrinesecretions, 613-735 diseases, 732-735 exocrinesecretions, 732-735 exocrinesecretions, 732-735 exocrinesecretions, 732-735 exocrinesecretions, 732-735 exocrinesecreti
functions, 73I-732 testsof, 733t in AIDS, 1006 physiology, 731-732 surgery 735 pancreatic amylase, in digestion, 10-11 pancreatic duodenectomy, pylorus-sparing, nutritional implications, 977 pancreatic amylase, in digestion, 10-11 pancreatic duodenectomy, pylorus-sparing, nutritional implications, 977 pancreatic duodenectomy, pylorus-sparing, 977 pancreatic duodenectomy, pylorus-sparing, 977 pancreatic duodenectomy, 977 pancr
pancreaticoduodenectomy, 735 definition, 708 pancreatitis, 732-735 caremanagement, 732 medicalnutrition therapy, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancle pancreatitis, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancreatitis, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancreatitis, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancreatitis, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancreatitis, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancreatitis, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancreatitis, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancreatitis, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancreatitis, 732-735 pathophysiology, 732, 734f severity, Ranson's classification criteria, 732b pancreatitis, 732-735 pathophysiology, 732b pancreatitis, 732b pancreati
of, 330 definition, 308 panicdisorder, nutrition, I I 12t pantothenicacid, 88-89 absorption, 88 deficiency, 88-89 definition, 4l dietaryreferenceintakesfor, 88, 89t functions, 70t para., 162b 1340 Index paracentesls definition, 708 definition, 708 definition, 180 definition, 190 defini
malnutrition and, 72l parat} rormone. There is evidence that, even if an overweight or obese adult is unable to achieve this level of activity, significant health benefis can be realized by participating in at least 30 minutes of daily activity of moderate intensity (AD,\ 2007). Alekel DL et al: Isoflavone-rich soy protein isolate anenuates bone loss in the
lumbar spine of perimenopausal women, Am J Clin Nutr 72:844,2000. The intensity of reflective listening skills far outweighs the detail of knowledge about a nutrition topic and will result in greater levels of dietary change. The treatment is unpleasant, regardless of whether it is given orally or by retention enema. Brown CD et al: Body massindex and
the prevalence of hypertensionand dyslipidemia, ObesRes8:605,2000. PnnENTERAL NurRrrroN Parenteral nutrition is the provision of nutrients directly into the bloodstream intravenously. For example, a workshop conducted by the Office of Dietary Supplements and prescribed
anticoagulant medications (see www.ods.od.nih.gov/pubs/coagulation/ D S-Coag-Post-Conf-BibJuly-2 005.pdfl. In the short term, high-fat, lowcarbohydrateketogenic diets causea greater loss ofbody water than body fat. intakeof bioactive Nutrition Diagnosis: Excessive products as related to use of 6 herbs/botanical substances by his requestfor your
reviewandassistance. poog: stsouEe!0 uotltJlnN e8pe1.,rou1 pu{lJe',tt'!\^4. (fuIod.fudfrom WestJB: Pulmonary pathophysiology: the essentials, Baltimore, 1998.I|/illiams dt L4tilkins.) the lungBis composedof collagen, which requiresviamin C for its s1'nthesis. Monitoring Patients receiving enteral nutrition are monitored to prevent and correct
complications. Its duration varies from a few days to severalweeks. Use the dietary supplement label to obtain important information, including: . BreenH, Ireton-JonesC: Predictingenergyneedsin obese patients, l{atr Clin Pract 19:284,2004. Norr: Mixed dishes and multiple preparations of the same food item have been omitted from this table. What
other nutrition assessmentinformation do you need before you see Rick? MedicalNutritionTherapy Nutrition assessment and interventionfocus on the abnormalitiescreated by the underlying disease or social condition. Administereach medicationseparately. e er / s oS y s t e m i c inflammatory response syndrome metabolic syndrome (MetS), 27lb
cardiovasculardiseaseand, 851, 851t definition, 269, 531, 765, 834 micelles definition, 2 in fat absorption, 12, 19 microalbuminuria, in diabetes, 799 lipoproteins, atherogenicity, 839 regional distribution of fat and, 541-542 metabolic water, 146 definition, 144 EPAsource, 1107
microflora, gut, actions, 13-15, 14b microminerals, ll+-127. Soybean and safflower oils are rich (about 40%) sourcesof linoleic acid. Problems with severexerostomia; alternatives should be suggested, or the foods should be
avoided to avert dysphagia risk. This latter focus has been a strong commiffnent of the project from the beginning (see Focus On:ELSI: Ethical, Legal, and Social Implications of Genetics Research). These formulas have a higher osmolarity (number of particles per liter of solution) because of the hydrolyzed protein. ACEinhibitors.
duration of symptoms before treatment is the factor most likely to influence treatment response; neurologic manifestations that occur in less than 3 months are rapidly and completely reversible. However, some surgical interventions have long-lasting nutritional implications. Copper Potassium Bicarbonate Copper is needed for an enzge that increases
the crosslinking of collagen and elastin molecules, and it may have roles in other enz)rmesof bone cells. Jefferies C et al: Continuous glucose monitoring in adolescents with cystic fibrosis, J Pediatr 147:396, 2005. Person3 AACTTT? The skeletal roles of several trace elements are briefly noted. Because starches often swell in cooking, a small amount
ofuncooked starch becomes a much larger amount of cooked food. The ulcers that accompany viral infections such as herpes simplex and cytomegalovirus cause pain and can lead to reduced oral intake. Sophisticated testing methods have enabled an evaluation of the cariogenicity of specific foods. The key is that the diets be well planned. discharge,
Coas J: Advances in the non-drug, non-surgical, non-device management of chronic heart failure; pathophysiological correlates and prognostic evaluadon, Heart 89411,2003. Explain the scientific rationale for each. List potential
 RenalDisorders95f CHAPTER 36: MedicalNutritionTherapy of high oxalatefoods and who excretemore than 30 mg (350 pmol) of oxalate per day. To estimate initial c-aloricrequirements, the Harris-Benedictequation, modified for stressand activiry aswell asthe underlying disease, or tle new DRI equations can be used (see Chapter 2). Etidronate Cyclic
 administration of etidronate to women with postmenopausal osteoporosis resulted in gready increased vertebral bone mineral content and reduced fractures. Oligofructose is a subgroup of inulin, containing less than 10 fructose units. *831er1s lelp
pluJo\ o suolt ls flv a! luaLtoN :L pdaT lalo lewloN :of llnl elecs filre^es pue euoclno EFeqds^oeql :euo iled ]ueDEdcr8eqdsz(geql EuIPeaCroJ seuIToPInC '5ur{ogr Jo {sIJ eql esBeJJ -ur ucr .{eqr st 'q}noru eqt ut dpsre elqurnrJ IBI{I sPooJ 'seuIToPInC '5ur{ogr Jo {sUIPeaCroJ seuIToPInC '5ur{ogr Jo {seuIToPInC '5ur{og
dleq uec pue 8ulLr,o1e^.suI eseeroJ spooJele3lJqnl ser,tt,r8 'eJnlxa] Jo rJeJJslBlrgeusq eql sI eJel{l esneJ PUBseJnES -eq peteJelol Jeuaq eq oslc deur uorteuoqrtC 'percJelor selsl reDeq aq.,(erusulell PooJ PIOJ'eroJeJeqr13ul.&\ollB^\s 'SlUeIJlnu (JOABH 'selJolBc -rlrceJ eJnlsJadrual Pu? Cold, mild-flavored, soft, moist foods bring the most comfoft to the
patient and offer the most protection against unexpected bleeding from the surgical area. Ploleluneqrglr'n nuaned ur lrBJrxerr?Jo luaueg: F ra X oel C {oog llprLlllrl um3fu,aldt't'JJo Iduraqt uorlrrlnNleclpaq I I IUVd 9907 /907 srqSq8un{segSurpnlcur'ernr 'rxal srjF 1en Jo uonrPe snol^, uondac.red -srl 'oraruo6 eqrce3 lq uonrr.d are,r rerduqe srqr;o
suort)es pue -a:d aqr roJ tuersuuJt Lrolelsn5 pue LlopeJlo Irnsn CIW -un Jo serueqrrusrp aruorpordE ,eesneulq paru lensr Jo -edurocceaq ,(eru :uorlJexagtL\\ asJo,trsoruooeqpuv ptar { lueura^oru aqt eplsauo uo llpnsn lsrnoq ot tuol; slsel d-rrlunyo,r rtgercadse'tuaureaotu ured relnJsnru teqr parrcdur Etxulu Jo Z.L b peeq Surqqorgl 'esualurerposldaue
auorpuls slsxe Llosuasou q8noqr rotoru ro auler6;u luauJredurr p!tusorodfrl -lE ruropad or &{rq?ur u;rerdu $ue fue our Ileus Jo &r.tnrsuespesBaJJur lryasodrnd urBJqaqr sel3rnua or urBjqaqr sel3rnua 
essesrP qJeruraqzlvJo uofJetseJrusru IIDIS ->Felro rurLrpreeeqt puqeq poolq ro prnu fsre(go uoruruo3 u serueu unuEdffl::rjl Jeqrueualol lt{rqeut plutouu Jo selJsnruJo dqdorie pue sseu>lea,{r Aq pautaneJeqJ suoJneuroloru er1;Jo eseasrpa,rne.raua8 -aporneu a,rrsserSo-rd E (S1V) slsoralJs tetalelolqdorlofutu ruauSpnf perrcdunpue 'se5ueqc ror ?qaq
pue &qeuos.red'uorsryuoJor spceldlpnl 'r(lpnper8sur8aqlsurerordpaceldsrurgo -ue^epue 'saJue,rpe pasoduocsel8uetf.rrlprggo-rneupuBplo/ure-$;o sdurnp es?e IBluJouqBJoureJqaqr ur aouasarderp dq pezrJelceJeqJ -srpalneJeue8apornau xaydruoc B (0V) aspaslpsrtautaqzlv uorsrl Jo pleg lensr^eWJo JlerlroJ ssaupurTq Elsdoueluaq dpoq aqi Jo eprseuo
dpo Suncegesseu>lte,rslsotedlutaq, se,ueu ut8erqdelpetp selJeu pue aqr Surpnlcur IeruBJc rotoru pruxord slrejile drpedorneu. (1od reqt Suneu (edurap '&oteuruegur') esuoetmE (Sgg) aruorpulsgtrug-urElltng relsru EJnPeqt pue IIIDISeqr uae./r (teq Surpeayq ferunertruor; . (gensneuolpuaq; ernprda urcrq etp; o dlddnsuaSlxo agr; o rred Sur,urdep
 'enbeld loJatselogr,tql-lerreuEJo uorsnlJJoaIorls Jtloqua sJeprosrp cnoqcr{sd puEasBesrp qJeunegzNJo Isreqlo uon?tseJrueru dq spro.,r,r. Chromium is widely distributed in the food supply, but most foods provide only small amounts (less than 2 mcg per serving). Osmolarity The size and number of the nutrient particles in a liter of solution define its
osmolarity. Parenteral nutrition support can be delivered via central fV accessor peripheral catheter. Counseling on appropriate food choices and textures is advocated. References Andreoli TE et al: Cecilessentinb of nudicine, ed 6, Philadelphia, 2004. WateS which makes up 60% to 65o/" of body weight, is the mostvariable component of LBM, and therefore the component of LBM, and t
state of hydration can induce fluctuations of several pounds in body weight. DjoussdL, et al: Apolipoprotein Feart, Lung, and Blood Institute Family Heart Study, Am J Clin Natr 80:1639, 2004. Significant findings are weight 12+ lb, height 5 ft 4 in, blood pressure 127/65, hean
rate 82, respiratory rate 18, temperature 98.6'$ Sao2 95, CO2 54, FVC l.M Q9o/o predicted), FEVr 0.37 (12"/" predicted), FEVr/FVC ratio 36, and FeF 25"/"-76"/o O-19 (670/o predicted). Ho LY Broncbopalmonary dysplaia and chranic lung diseaseof infancy: slvategiesfur Frnentian and ntanaganent, cuntinuing professionaldne lopment, from
www.annals.edu.sglcpd0I 2b.htrnl, accessedFebruary 5, 2006. of HSCT 0therComplications Other acuteor chronic complications of the graft, growth abnormalities in children, sepsis, and infection. elrxegal ou'setcuelsrsuoceJolu Jo o,r\l tptt uorlertdsy. The ultrafiltrate produced in the
glomerulus is very similar in composition to blood. Moving forward slightly toward the client is an encouragerthat allows for more positive interaction. American Dietetic Association: Position of the American Dietetic Association: Position of the American Dietetic Association: Total diet approach to communicating food and nutrition information, J Arn Diet Association: Position of the American Dietetic Association: Total diet approach to communicating food and nutrition information, J Arn Diet Association: Position of the American Dietetic Association: Total diet approach to communicating food and nutrition information, J Arn Diet Association: Position of the American Dietetic Association: Total diet approach to communicating food and nutrition information, J Arn Diet Association: Total diet approach to communicating food and nutrition information information
 care actual feeding time is commonly los-t from the patient's prescribed feeding schedule as a rezult of (1) a dislodged tube, (2) gastrointesrinal intolerance, (3) medical procedures requiring discontinuation of feeding, and (4) difficulties with the feeding tube position. Gur A et al: The relation betweentooth lossand bone massin postmenopausal
osteoporoticwomen in Tirrkey: a multicenter sttdy, J BoneMiner Menbol21:43,2003. This oppornrnity to have someone listen and understand the emotions behind the words is crucial to eventual dietary change. Bloch, PhD, RD, EADA KEY TERMS bolus feeding infusion of up to 500 ml of enteral formula into the stomach over 5 to 20 minutes, usually
with a largebore syringe catheter a fine tube that can be threaded into the lumen of a blood vessel for infusion entral parenteral nutrition (CPN) vein, usually over 8 to 24 hours per day cyclic
central parenteral nutrition administration of total parenteral nutrition solution for 12 to 18 consecutivehours, usually at night, followed by a 6- to 12-hour period of no infusion enteral nutrition provision of nutrition provis
gaseousinflation (distention) of the gastrointestinal uact"by the application of intermittent or continuous negative p..sni. "What are some of the things you like about your current eating habits?" . It follows that a decrease in lean tissue could hinder the progress of weight loss. cdc.govlfoodne t/ http://www.foodpres.com h ttp://wrrw.food-i
rradiadon.com http://www. and ammonia are for RenalDisorders923 CHAPTER 36: MedicdNutritionTherapy Proximal vitamin D promotesefficient absorption for lubule Bowman's PTH provitamin D also suppresses Active and maintenance. They fit
perfectly. Wallpaper Cave Honestly, it's hard to settle for just one or two of these free wallpapers. Even when a pedigree suggests that a gene should causea particular individual to display a certain phenot'?e, the diseasemay not be evident. The role of minerals such as magnesium and calcium in muscle contraction and relaxation may be important for
people with COPD. ca/fn-an/food-guide-aliment, accessed February8, 2007. Pulmonary and diabetic products are usually low in carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in contrast to chemically defined formulas, which are high in (simple) carbohydrates in (simple) carbohydr
 desiredschedule. Kher N, March JD: Pathobiology of atherosclerosis-abrief review, SeminTbronb Hanost302665,2004. Other factors such as the potential presence of perchlorates in the environment may also play a role. In another more obvious manner the client may break in with words intended to cut off the nutrition counselor's discussion. Dietitians
play a role in home parenteral and enteral nutrition (PEI.i) through assessment, establishing the nutritional diagnoses, providing interventions (such as writing the PEN orders or validating with the physician and team), and monitoring and evaluating outcomes. Transplantation involves the surgicalimplantation of a kidney from a living
related donor, a living nonrelateddonor, or a deceased(cadaveric)donor @gure 36-2). When dissolvedin water, waxy starchforms a smoothpaste that doesnot gel until the concentration becomes very high. Kathleen Mahan, RD, MS, cDE, 2006. Many clients have no one with whom to discuss problems in CHAPTER19 | Intervention: Counseling for Ghange
495 their lives. Clients may disagreewith the nutrition counselor when a suggestion is offered, but they frequendy provide no constructive alternative. postexercise variation in BlackAE, Cole TJ: Wthin- and between-subject energy intake, Eur J
Clin Nutr 54:386,2000. Counselingcanbe rewarding but at the sametime it representsone ofthe greatestchallengesfor health careprofessionals. Patients with CF usually areableto maintain normal growth and
energy storeswhen they eat a high-energy, moderate-fatdiet complementation (frabulsi et al., 2007). duction and safety. The field of food biotechnology is based Additional goals include sequencing the genomes of on targeted manipulation of the genetic material of food other organisms that
areusedasmodelsystemsin the labocrops and animals and on diagnostics for detecting conratory to explorethe molecularbasisofdiseaseandaddress- taminating organisms. I mcg: 40 IU of vitamin D or calciferol. with dietary supplementuseamong FooteJA: Factorsassociated healthyadultsof five ethnicities: the Multiethnic Cohort Study, 2003
SeeGlucagonJike peptide 1 glucagon definition, 765 in body weight regulation, 537t in hypoglycemia, 802 glucocorticoids, after liver transplantation, 727t glucogenesis, in macronutrient metabolism, rl4f glucogenic amino acids, 63 gluconeogenesis, 62
definition, 1141 impaired, in glycogen storage disease, 47 glucosamine as ergogenic aid, 605t for osteoarthritis, 1050 glucose, 43 absorption, 49 in urinalysis, expected value/significance, 417t levels, drugs altering, 446,
447 -448b, 448 parenteral, for premature infants, 1 122, l l22t plasma, goals, in pregnanry, 788t serum, reference range/significance, 41 5t sweemessvalue, 43t glucose-dependent insulinotropic peptide (GIP), in bodyweight regulation,
537t glucose-dependent insulinorropic polypeptide (GIP) definition, 2 functions, 8, 9t glucose-lowerin g medications definition, 765 in diabetesmanagement, 781-782 injectable, definition, 765 glucoses homeostasis, impaired, definition, 765 glucose tolerance factor (GTF), 132
definition, 40 glucotoxicity definition, 765 in gpe 2 diabetes, 769 glutamine definition, 673, l02l in enhancing adaptation of GI tract after resection, 700 m e t a b o l i s m ,1 0 3 0 , 1 0 3 2 f glutathione, I 13 glutathione, I 10 3 0 , 1 0 3 2 f glutaric aciduria, type l, formulas/medical foods i n m a n a g e m e n to f , I 1 5 I t glutathione, I 13 glutathione, I 10 3 0 , I 0 3 2 f glutaric aciduria, type l, formulas/medical foods i n m a n a g e m e n to f , I 1 5 I t glutathione, I 13 glutathione, I 13 glutathione assay, as oxidative stress marker, 427t glutathione assay, as oxidative stre
peroxidase (GSH-Px) definition, 40 selenium intake and, 129 gluten-free diet, 685b allowed, questionable, and toxic grains, starches, and flours for,687b thickener tips, 686b wheat flour substitutions, 686b gluten-sensitive enteropathy, 681-686. Ogle CK et al: Effect of glutamineon phagocitosisand bacterial killing by normal and pediatricburn patient
neutrophils,/PEN J ParenterEnteralNutr 18128, 1994. 'urluod llnseJ e vsureloJd Jo -oatso 'urcleJoetso'ue8e1oc Jo uopJnpoJd pecnpe-reqt se r{Jns uorlJr.rnJrr}sElqoelso Jo euITcePeql o1 PelEIer sI sexes qtoq ut Sur8e gfr,n sJnJJo tEI{f ssol auoq IBurJou eqJ 'eruelgq unIJIsJ e^Ee8auor speey,(1qe -rrE^ur sa8r reprurs;o saFru ur flqerunse:d pue e8e;o
sreed sg relq:EsalBureJur uopdrosqB unrJIsJ l?urlselul PesBeJJep aqa 'e8e lpl^l ruelJu$e ssel setuoreq-IunlJIBJJo uondrosqe erlr sBIIe.r\ sB-eJueleq unrJIBJ Surureturetu ro; alqrsuodser sJotJEJ rarpo PUE sauouuoq Jo uorlJB etll esnBreq qlns -er eJuBIEq tunlJIEJ e^Dtgeu dpq81s sIqJ 'uoDgrueJuoJ lunIJIEJ rurues IBruJou e urBlurBru ueJ
srsBlsoetuoqIunIJIBJ q8noqr uele 'sJnJJo uroples aJuBIBqIunIrl?JJo lueluelerrpt u1 erp 'ddererp 8up Sur,rrasuor-euoq uo tou uaruorrrd1-rapya 'a8e replo rpur tuarJ!+e ssal seluoJeq llecrddr IorrtIJIEJ 8uI -^lo^ur rusrusqceure,Lndepe-(Julruell^ atp !e,ra,no11 'anssn auoq Jo ssol E Jo asuedxa aI'[] 13 tnq 'srselsoautoq unrJIEJ (inrLtug 'J protuus puo
uos.t)puv 'g'[ 's-rasoy ^rols sB ro rarple uqo[ q8ufdo) lseJ CWg uetp sseru asol uec osp daqr lnq 'Cl1gfl Ierurou tIJI.,rtuaruo^.r. If Nell b"gor a weight-loss program, how much weight should she lose, and how quickly? A number of medications, including antibiotics vasopressors, narcotics, diuretics, and many other commonly administereddrugs, can be
compoundedwith parenteral nutrition solutions. In practicethis occursinfrequendy because it requires specialized knowledge of physical compatibility or incompatibility or incompatibili
B1(thiamin) 82 (ribofavin) 83 (niacinamide) 85 (dexpanthenol) 86 (pyrodoxine) B12(cyanocobalamin) C (ascorbicacid) Biotin Folic acid Mtamin K NAG-AMA Guldellnes 3300units (1 mS) 200units (5 mcg) 10units (5 mcg) MVt-12 MVr-13 MVr-13 MVr-13 MVr-13 MVr-14 MVr-15 mcg) 10units (1 mS) 200units (1 mS) 200uni
(Infuvlte)Baxter 3300units(1 mg) 200units (5 mcg) 3300 units (5 mcg) 3300 units (1 mS) 200 units (1 mS) 200 units (1 mS) 200 mg 60 mcg 400mcg 150mcg 150mcg 170mcg 150mcg 
FedReg66(77):April 20, 2000. Avoiding late evening meals might be difficult for Smokingand GastrointestinalFunction he gastrointestinalFunction of the nature of the gastric contents, inhibition of pancreatic bicarbonate secretion,
accelerated gastric emptying of liquids, and lower duodenalpH. Nutrition therapy involves the elimination of fructose-containing disaccharidesucrose(seeChapter 44). - Nuevo material gráfico y Contenidos ampliados y actualizados sobre la enferemdad de de Parkinson y Alzheimer. Some shakes are prepared using a blender at home
and are made with a purchased protein powder (either soy, milk, or rice protein concentrate) that usually has added vitamins and minerals and sometimes fiber, to which fruit or fruit juice is added for the carbohydrate, and oil such as olive, canola or flaxseed, for the fat. Although it does require approval by FDA, a general health claim does not
require the level of scientific evidence of a qualified health claim. The contribution of alcohol to excessive energy intake in the overweight individual always has to be considered. Evidence-based reports of nutrition support teams improving patient outcomes in acute care settings have concluded that teams have reduced the incidence of total
mechanical complications and have had cost-saving benefits but have not decreasedcatheter-related sepsisQ'{aylor et al.. KathleenMahan,MS, RD, CDE, and SylviaEscott-Stump,MA, RD, LDN, 2006. Administration The methods used to administer parenteral nutrition are addressedafter the goal infusion rate, basedon calculations, has been
established. Becausethey contain fructose, fructans have a sweet, clean flavor and are half as sweet as sucrose. Major sources of fructans include wheat, onions, garlic, bananas, and chicory; other sources of fructans include wheat, onions, garlic, bananas, and chicory; other sources of fructans include wheat, onions, garlic, bananas, and chicory; other sources of fructans include tomatoes, barley, rye, asparagus, and Jerusalem anichokes. Serum lipid concentrations can be modified by insoluble fibers such as cellulose
APPENDIXES FoodSources Selected of Magnesium Mifligram per Serving Food Pumpkin and squash seed kernels, roasted, I oz Brazil nuts, I oz B
Cashews, dry roasted, I oz Soybeans, mature. It is reassuring to a nutritionist to know that change at this level will often occur outside the office. There are not only these metabolic effects, but also psychological ones. Humans also have a subcutaneous layer of fat that insulates the body, preserving body heat and maintaining body temperature.
Arterial blood and into the dialysate; water moves by osmosis. You are having a difficult time merging new and old habits. Forum Nutr 57 147,2005. Fibers are classified water soluble (pectins and gums) or water insoluble (cellulose or hemicellulose) (see Chapters I and 3). Because of the rules related to separating meat and milk products, those in
traditional orthodox Jewish homes must keep two completely separate sets of dishes, silver, and cooking equipment-one for meat meals and one for dairy meals. Furthermore, hypoglycemia on the day of exerciseas well (Davis et al., 2000). Homelessness and mental illness are
growing problems, compounded with higher rates of HfV infection. MEDICATIONS: Identifyvia enternalfeedingtube: A. Being sedentary increases the risk of developing CHD with the same intensity as having high blood cholesterol, hypertension, or smoking cigarettes (AHA, 2006a). This storage fat accumulates under the skin and around the internal
organs to protect them from trauma. Obviously the child who needsto reduce weight is going to require more aftention from family and health professionalsand effoft on his or her part. Mueller, PhD, RD, FADA, LDN t{gv ?gF?M5 acuterespiratorydistresssyndromea life-threateningcondition characterized, by severehlpoxia, bilateral pulmonary fluid
infiltration, and decreasedlung compliance; usually occurring without prior lung diseasebut secondaryto catastrophicillness asthma a condition of hlpersensitive airways from allergic and nonallergiccausesgenerated immunologic responses bronchopulmonary dysplasia (BPD) a chronic lung disease of infancy that commonly arisesfollowing
respiratory distress syndrome (RDS) and treatment with oxygen; characterized by broncheolarmetaplasia fibrosis; now referred to aschronic lung disease of prematurity chronic bronchitis a chronic lung disease of prematurity chronic lung disease of
(CLD) a diagnosis made at 36 weeks postrnenstmalage an infant who has continued requirement for supplemental pulmonary physical examination, and an abnormal pulmonary physical examination physical examinatio
 development of airway otrstruction cor pulmonalea heartcondition characterizedby right ventricular enlargementand failure that resultsfrom resistance to the passage of blood through the lungs cysticfibrosis(CF) an autosomal-recessive disordercharacterized by dysfunction of abnormally thick secretions that
obsurrct airways and pancreaticand other ducts distal intestinal obstruction syndrome(DIOS) recurrenr distalintestinal impaction; formerly termed meconiumileus equivalent dyspneashortnessof breath elastaseprotein-digestingenzyrnesecreted meconiumileus equivalent dyspneashortnessof digestingenzyrnesecreted meconiumileus equivalent dyspneashortnessof digesting explanation digesting digesting digesting digesting explanation digesting explanation digesting digesting explanation digesting explanation digesting explanation digesting explanation digest
pancreaticenzymesupplementation emphysemaa condition of the lung chrracteriz,ed by abnormal, permanent enlargementof alveoli, accompanied pancreaticenzymesto produce more normal
 digestion in personswith pancreaticinsufficiency pulmonaryaspirationthe drawingof foreignbodiessuchas food or liquid into the lungs during inspiration pulmonaryfunction tests a group of proceduresdesigned to measurethe ability of the respiratorysystemto exchange oxygenand carbondioxide respiratoryquotient(R0) the ratio of the volumeof carbon
dioxide expiredto the volume of oxygeninspired(CO2/O2) surfactant a substancecomposed phospholipids (especially dipalmitophosphatidylcholine) and protein that is produced by typ. "In looking at your monitoring tools, it seemsthat you have had excellent progressat some times and at other times it may have been more difficult." . Tiaditional
nutrition counseling focuses on the change process matched to the action and maintenance stages. After eachadvancementinstill 20 ml of air and ausculworkload of an NSD, it has many potential personal benefits tate on left, mid, and right abdomen to determine loin addition to the patient benefits previously mentioned. Although not specific to
cancet Eisenberg (1997) reported that patients explore alternative therapies when (1) health promotion and disease preventional therapies are of indeterminate effectiveness or are commonly associated with side effects or significant risks; (4) no conventional therapies are of indeterminate effectiveness or are commonly associated with side effects or significant risks; (4) no conventional therapies are of indeterminate effectiveness or are commonly associated with side effects or significant risks; (4) no conventional therapies are of indeterminate effectiveness or are commonly associated with side effects or significant risks; (4) no conventional therapies are of indeterminate effectiveness or are commonly associated with side effects or significant risks; (4) no conventional therapies are of indeterminate effectiveness or are commonly associated with side effects or significant risks; (4) no conventional therapies are of indeterminate effectiveness or are commonly associated with side effects or significant risks; (4) no conventional therapies are of indeterminate effectiveness or are commonly associated with side effects or significant risks; (4) no conventional therapies are of indeterminate effectiveness or are commonly associated with side effects or significant risks; (4) no conventional therapies are of indeterminate effectiveness.
to relieve the patient's condition; or (5) the conventional approach is perceived to be emotionally or spiritually without benefit. Other factors include chronic infection with H. The diet should contain adequateamounts ofcalcium and phosphorus (1200 mg of each daily), and serum levels should be monitored periodically. o Nutrition services provided by
qualified and enthusiastic nutrition professionals with the goal of optimization of the nutritional health of the community can have a powerful effect on the total well-being of that community can have a powerful effect on the total well-being of that community. Thus a diet rich in whole foods such as fi:uits, vegetables, legumes, nuts, and minimally processedgrains tends to slow down the pace of glucoseabsorption. Tips
 include advice regarding: (1) assessment of presenr diet; (2) informing health care providers of dietary supplement use; (3) potential medication-dietary supplement interactions; (4) reporting of adverse events; and (5) as-sessment of the validiry of information. The reported results Popular Gommercial DietPrograms-cont'd Diet Programs-cont'd
Nutri/System www.nurrsystem.com Prepackagedfoods 30-min weekly group meetings; 10-min weekly gro
program Cyberdiet www.DietWatch.com and wwwCyberdiet.com Regular food eDiets www.ediets.com Regular food Nutrio www.nutrio.com Regular food Nutrio www.nutrio.com Regular food Points www.ediets.com Regular food Points www.nutrio.com Regular food Nutrio www.nutrio.com Regular food Points www.nutrio.com Regular food Regular foo
psychologists cards Professional eCounseling provides biweekly meal plan and fimess trainers, routines exercise counselors, Chat rooms, bulletin psychologists boards, e-newsletter available Daily and weekly meal RDs, exercise physiologists, and
 plans; exerciseand psychologists nutrition logs, community message boards and e-newsletter Program graduates l-yr transition diet; program and regular foods Weekly meetings for 6 wk; free meetingpif maintain goal weight Monthly meetings for 6 wc I yr; continuation with weekly meetings as necessary; no time limit Internet-BasedDiets WCD,
 Yery low-calorie diet. Both tunneled catheters and PICCs can be used for extended therapy in the hospital and are frequently used for home infusion therapy. The interaction may causeelevatedblood pressure. Blackburn GL: The public health implications of the dietary approachesto stop hipertension trial, Am J Clin Nutr 74:1, 2001. Using the Hamwi
equation, for women the rule is 100 lb for the first 5 ft of height over 5 ft. 3. Rapid turnover proteins were low; retinolbinding protein was 1.3 mgldl (normal 3 to 6 mgldl); and prealbumin was 4.8 mg/dl (normal 10 to 40 mgldl). Syringe bolus feedingsadministeredover 5 to 20 minutes are more convenient
and less expensive than pump or gravity bolus feedings and should be encouraged when tolerated. Benefit of long-term nutrition by it." "Easy does it"-moderation at all meals. She does not think care of baby teeth is important because they fall out anyway." Nutrition Diagnosis I:
Underweightrelated to inadequate protein/energy intake as evidenced by high sugar beverages at least three times daily Continued 650 PART4 I Nutrition for Healthand Fitness Nutrition Diagnosis 2: Undesirable food choices related to high sugar inake as evidenced by high sugar beverages at least three times daily Continued 650 PART4 I Nutrition for Healthand Fitness Nutrition
Diagnosis J; Food- and nutrition-related knowledge deficit related to appropriate diet for toddler as evidencedby continued use of bottle containing high sugar beveragesseveraltimes daily 2 . b. The diet should attempt to provides ufficient protein and energy to maintain a positive nitrogen balance and increase in plasma albuming high sugar beveragesseveraltimes daily 2 . b. The diet should attempt to provides ufficient protein and energy to maintain a positive nitrogen balance and increase in plasma albuming high sugar beveragesseveraltimes daily 2 . b. The diet should attempt to provides ufficient protein and energy to maintain a positive nitrogen balance and increase in plasma albuming high sugar beveragesseveraltimes daily 2 . b. The diet should attempt to provide an increase in plasma albuming high sugar beverages and increase albuming high sugar bev
concentrationand disappearanceof edema. Often other concurrent disease processessuch as cardiovascular or renal disease, cancer, or diabetes mellitus exist. Fatigue and impairment of physical performance and well-being are common and often severe problems for individuals diagnosed with cancer. It is possible to track a gene through multiple
 generations by [nowing these rules of inheritance. He was diagnosed as having hypertension, with three blood pressure testsof 160/90, 175/95, and 177/92. Recommendations Weight-loss programs should combine a nutritionally balanceddietary regimen with exerciseand lifestyle modifica- tion at the least possible expense. Expert recommendations the combine and the least possible expense. Expert recommendations weight-loss programs with exercise and lifestyle modifica- tion at the least possible expense. Expert recommendations weight-loss programs with exercise and lifestyle modifica- tion at the least possible expense. Expert recommendations weight-loss programs with exercise and lifestyle modifica- tion at the least possible expense. Expert recommendations weight-loss programs with exercise and lifestyle modifica- tion at the least possible expense. Expert recommendations weight-loss programs with exercise and lifestyle modifica- tion at the least possible expense. Expert recommendations weight-loss programs with exercise and lifestyle modifica- tion at the least possible expense. Expert recommendations weight-loss programs with exercise and lifestyle modifica- tion at the least possible expense. Expert recommendations weight-loss programs with exercise and lifestyle modifical weight-loss programs with the least possible expense. The life weight-loss programs were the life with the least possible expense with the le
managing obesity in children and adolescents are found in Clinical Insigh: Evaluation and teatrnent of Childhood and AdolesceniObesiw. Conversely, patiens with chronic bronchitis are of normal weight and, indeed, are often overweight. Metabolic practitioners generally claim that diseases, including cancet are causedby an accumulation of toxic
substances in the body. Formulas are classified in a variety of ways, usually based on protein or overall macronutrient composition (see Appendix 32). GretebeckR et al: Comparisonof the doubly labeledwater method for measuring energy expenditure with Caltrac Etcerc23 (suppl):60' accelerometer recordings, Med SciSports 1991. Although conclusive
human studies have not yet been done, researchers are focusing on the increase in Americans' obesity coupled with their higher sugar (especially fructose) consumption as the causeand are calling for additional studies to clearly define the way the macronutrient composition of the diet can influence health. Mind-body interventions: mindfulness,
meditation. Data from this study form the basisfor treatment protocols for PKU clinics in the United States, the those generally accepted as rypical portion sizes in various nutrient data sourcemanuals. An early adiposity rebound occurring before 5.5 years is predictive of a higher level of adiposity at 16 years of age and in
adulthood, a relationship that appears ooccur regardlessofthe child's adiposity at 1 year of age. NauseaandYomiting Musclecrampsanditching Metallictastein mouth Neurologic impairment Goals. plo1, {ure-$ spurg tr i61 aruosoruorr{} Juo pole of urelord r sr 'g-ody'suoneogdrur leuonrrtnu seg (gg-ody) gg-urerord -odgody 'gy Surdolaaep JoJ
lrlrqndecsns aql Sursearcur sBpagquepr ueeq e^Brl sauaSpreaas 'CtV (crperods) perBIOr -e8e tpltr patBrJosseers uralord proldure Jo uoDBInunJcE e rsserxe asnsc terft suogetnru crlaueS regro .(IV IBIIITuEJ 'lesuo-dpra esneJ teg] pere^oJsrp ueeq e^Er{seuaSeerga '(eseasrq qrarureqzlv :ruquto&1V ruauta8a -uory aroJ pua
ffio1ou{qdoqw4eas)3u#r;o su8rs prnreu e1q -rueseJztarpesneceqPessruusuo aJB'uoDeIuacuoJ ssol Jo apnycurqJlr{,ld'CVJosuoldurzfu/1JBeeqJ pu? Pay particular aftention to spofts drinls, energy bars, and fortified cereals that have significant amounts of added iron. Then use a straightedge(ruler)to connectthe two pointsand circlethe spotwherethis
straightline crossesthe center line (body mass index). Recordthe numberbelow. Nutrition Diagnosis: Limited adherence to nutrition-related recommendations related to multiple failed weight. CDE $ . Acceleration of the processthat occurs in
women after menopauseis directly related to the lack of estrogen. BMC and BMD measurements of the lumbar spine of women osteoporosismay be as much x 250/0 with posunenopausal nonosteoporotic control in age-matched lower than to 40"/0 bone siteswith a prerange. In dentin, protein is present as collagen, which depends on vitamin C for normal
synthesis. It is prudent for health professionals to consider a child's fluid intake as well as food sources and the availability of fluoridated water in the community before prescribing fluoridated water in the community before prescribed water fluoridated water fluoridated water fluoridated water fluoridated water 
counselor to change strategies. 5. ThimelaS et al: The effect of physicalactivity on serumtotal and Iow-densitylipoprotein holesterolconcentrationsvarieswith apolipoprotein E phenorypein male children and young adults: the CardiovascularRisk in Young Finns Study, Metabolism 45:797,1996. Nutrition Therapy Medical For the majority of individuals
with pernicious anemia, inadequate dietary intake of vitamin B12 is unrelated to this disease; most have inadequate absorption. women up Hip frachrrenambersare steadilyincreasing men. Although MI is useful in overcoming resistance and
establishing clear motivation, once an individual is ready to make a change, other strategies such as behavioral therapy and cognitive behavioral therapy and cognitive behavioral therapy are needed (Resnicow et al., 2005a, 2005b, 2006). Prices can vary widely. National Cancer Institute, U.S. National Institutes of Health: Energy Balance: The complex interaction of diet, physical
activity and genetics in cancer prevention and control, January 20, 200+, http://u,v-w.cancer.gov; and optimizing energy balanceto reduce rhe cancer burden, hnp://plan2005.cancer. of energyexpenditurein active GretebeckR et al: Assessment older women using doubly labeledwater and Caltrac Exerc23(suppl):68,1992. It involves summarizing the
client's perceptions of the barriers to a healthy eating style and how they are eliminated or circumvented to achieve change. In this therapy patients' treatments are done at night by a machine that does the exchange in the peritoneal cavity for extended periods of time (called a long
dwell), perhaps the entire day. Sims L: Researchagendafor dietetics proceedings, Chicago, 1993, The American Dietetic conference
Association. SeeAmyotrophic lateral sclerosis altered neurotransmitter theory of hepatic encephalopathy, 724 alternative therapies, for osteoarthritis, I 050 altirude, fluid absorption in athletes and, 602-601 aluminum, blood values, in renal disease, 939t Alzheimer's disease, 
related behavioral problems, 1085 t medical nutrition therapy, 1082-1083 medical treafinent, 1082 pathophysiology, 1082, 1081 f ambivalence definition, 489 in clients facing change, 495 AMD. We i g h tC y c l i n g Repeated bouts of weight loss and regain, known as weight rycling or yo-yo dieting, occurs in males and females and is common in both
overweight and nonoverweight individuals. Kornman et al. Smaller\{LDL particles (i.e., remnants) are formed from triglyceride hydrolysis by LPL. Wolfe R et al: Glucosemetabolismin man: responsesto intravenous plucose infusion, Metabolism 28:210, 1979. *Estimated energy expending expend
maintain energy balancein a healtly adult of a defined age, gender, weight, height, *d l"*l phyrical activity consistentwith good health. What do you like about them? SessoHD et al: Update on nutrition monitoring activities in che United States, J Am Diet
Assoc94:7 53, 1994. Phe-free formula is supplemented with regular infant formula or breast milk during infanty and cow's milk in early childhood to provide high-biologic value protein, nonessential amino acids, and sufficient Phe to meet the individualized requirements of the growing child. Regular exercisealso has consistently been shown to be
effective in reducing triglyceride levels in persons with We 2 diabetes; however, the effect of exercise on HDL cholesterol levels is unclear. The conditions are attributed to HfV infection andlor indicate a defect in cell-mediated immunity, oral Medicape. Com./ National Library of Medicine. One study
comparing organically grown vs. Becausethey are identical twins, would you have expected the two brothers to have similar health profiles? Normal salinerinsesmay amelioratemucositis(see Figure 37-4 in Chapter 37), and topical anestheticscan be used to relieve pain. Dietary Patterns of Specific Religious Groups Another major consideration is religious
beliefs that affect dietary patterns (Thble 12-8). In addition, it is possible that some high-risk individuals have subtle genetic changes that impair their ability to tolerate dietary carbohydrates (Salaset al., 1998). Adipose tissue exerts a profound influence on whole-body homoeostasis. Several types of peritoneal dialysis exist. If the gut is functional,
enteral nutrition is the preferred route of nutrition support. Expressing Empathy, counselor acceptance of what a client feels in times of turmoil, can get lost among thousands of images in every category, including a massive collection of
wallpapers related to anime, video games and movie celebrities. Pixabay License/nastena94-940/Pixabay Wallhaven is another place where searching for wallpapers is half the fun. A monthly maintenance injection of B12 is administered for life if lack of inuinsic factor is apparent (seeChapter 31). Owen OE et al: A
reappraisalof caloric requirements in healthy women, Am J Clin Nutr 44:1, 1986. AvenellA et al: Selenium supplementation for critically ill adults, Database SystRn, CD001701 October 18, 2004. U.S. Senate Select Commiftee on Nuuition and Human Needs: Dietarygoals for the United States, ed 2, Washington, DC, U.S. Senate, 95th Congress, first session,
December 1977, huang can be hazardous. The Food and Drug Adespecially Chromium: According to the claims, chromium should proministration received more than 100 reports of adversereacmote fat loss and increaselean body mass. Chromium should proministration received more than 100 reports of adversereacmote fat loss and increaselean body mass.
lipid, and deaths, and it has been removed from the market. Seea/soNutrition rntervenuon nutrition support as,506-530. In addition to following DASH, try adding in daily physical activity such as walking or other exercise. Nkaline saliva may have a protective effect, whereas acidic saliva increases susceptibility to decay (see Clinical Insight: Acid fuh
and Alkaline fuh Diets in Chapter 36). Eicosapentaenoic acid (EPA) (20:5 o-3 or 20:5 n-3) is found in marine organisms and is an omega-3 fatty acid. See also Medical nutrition therapy (MNT) NVP. nutrition supports ignificant? General-purpose formulas have osmolarities between 300 and 500 mOsm, which is close to the osmolarity of blood and body
fluids. Engagingin high levels (60 to 90 minutes/day) of physical activity (Hill and Wing, 2003) Weight loss maintenance may get easier over time; after Support groups are invaluable for the obesewho are rrying to lose weight and for reduced-obese persons who are maintaining new lower weight. See Glucose tolerance factor (GBS), 1090-1091 s1'ndrome
Guillain-Ba116 definition, 1067 gums, 47 asfat replacers, 58t nctions, 48t composition-/sources/fu gut-associated lymphoidtissue, 1026 definition, 1021 disease G\TID. Oxandrolone . The Centers for Public Health Preparedness and public
health infrastmcture needs (Bruemmer, 2003). Micronutrients may require supplementation during periods of poor intake, stress, or malabsorption. Snetselaar, RD, LD, PhD KEY TERMS affirms supports the client's change efforts alignment presenting a supportive statement to a client indicating that the counselor understands and is empathetic
ambivalence a client'smixed feelingsabout difficult chansemodif,ing behaviors cognitive-behavioraltherapy in which maladaptive thoughts (cognitions) are modified; problem-solving and coping skills are enhanced cultural knowledge
while interacting with clients discrepancy sffategy thar identifies conflicting feelings when change results in both positive and negative consequences double-sided reflection sratement from the counselor describing a discrepancy sffategy than identifies conflicting feelings when change empathy
technique by which the counselor accepts a client's feelings of turmoil about making changes motivational interviewing (MI) counselor sryle is persuasive and supportive negotiation sffategy whereby the client and counselor strong the client and c
interaction allows for a compromise designed to achieve a specific goal normalization statement indicating that the client's behavior is perfectly within reason and normal; validates the client's reaction to a given situatron reflective listening guessingat what a client feels and stating that feeling; promotes understanding on the part of the counselor
reframing sffategy whereby the counselor changesthe client's interpretation of the same basic data that he or she has given and offers a new viewpornt self-efficacy client's belief in his or her ability to change through the client's decisions self-monitoring
client's recording of behavior changes transtheoretical model (TM) or stages of change model that describes behavior change as a processin which individuals progress through a series of six distinct stages; precontemplation, contemplation, preparation, action, maintenance, and relapse The author would like to thank \,4croria Poppelaars, MS, RD, LD,
for her assistancein writing the multiculrural section in this chapter. 260 60 180 170 OBESE 160 39150 OVEFWEIGHT . Patient's or caretaker's physical limitations that influence the ability to administer nutrition support safely Data from Maarese L: Nut
groum in selenium-rich soil have higher levels of selenium in their muscle. Both before and after denture placement, many individuals may experience eating difficulty fitting and chewing) even after denture placement, many individuals may experience eating difficulty fitting and chewing) even after denture placement, many individuals may experience eating difficulty fitting and chewing) even after denture placement, many individuals may experience eating difficulty fitting and chewing) even after denture placement, many individuals may experience eating difficulty fitting and chewing) even after denture placement, many individuals may experience eating difficulty fitting and chewing) even after denture placement, many individuals may experience eating difficulty fitting and chewing) even after denture placement, many individuals may experience eating difficulty fitting and chewing) even after denture placement, many individuals may experience eating difficulty fitting and chewing individuals may experience eating and chewing individuals experience eating difficulty fitting and chewing experience eating and chewing expe
laooratory ) / ) vitamin/mineral deficiencies, 575 -576 psychological management, 570-57 weight gain (rate, factors affecting), 577b anosmia, 1070 definition, 383 in nutrition assessment eating disorder assessment deficiencies, 575 -576 psychological management, 570-57 anothropometrics in ADHD
assessment, 1 187 in assessment, 1 187 in assessment, 1 183 anthropometry arm for adults, 1 2 1 r 7 2 f, t I 7 4 in autism assessment, 1 186 in cerebral palsy assessment, 1 185 in Down syrdrome assessment, 1 187 in assessment, 1 1 1 definition, 3 1 in autism assessment, 1 1 1 in spina bifida assessment, 1 1 2 in autism assessment, 1 1 3 in assessment, 1 
assessmenr, 398-401 skin-fold, 25 antiarthritics, gastrointestinal side effects, [44b antiastlmatics, taste alterations, 442b antibody(ies) definition, 739 in food allergy, 740 anticariogenic, definition, 636 anticariogenic foods, 640 anticholinergic drugs, 443b oral effects, 442 anticonl'ulsants
increasing appetite, 447b nutrient metabolism and, 419, 45 lb antidepressants increasing appetrte, 447 b with anticholinergic effects, rl43b anridiabetes drugs, glucose levels (impact), zt47b anridiabetes drugs, glucose levels (impact), zt47b antidepressants increasing appetrte, 447 b with anticholinergic effects, rl43b antidepressants increasing appetrte, and antidepressant and antid
diarrheal effects, 445b anrihistamines, anticholinergic effects, 445b antihypertensives, affecting glucose levels, rl4Tb antiinfective factors, in human milk and colostrum, 207 antiinfective factors, in human milk and colostrum, 246b taste alterations from, 445b oral side
effects of,442 taste alterations trom, 442b with gastrointestinal side effects, ,K4b antioxidant activity. Drug treatment in the older adult is supported by very strong data. In addition, immunosuppressive medications can also adversely affect nutrition status (Charuhas, 2006). RosanoGM et al: Metabolic therapyfor patients with diabetes mellitus and
coronaryartery disease, Am J Canliolg8(5A):14], 2006. Findings from this study suggest that older persons are more vulnerable to unexplained weight lossesor gains because of their inability of new pharmacotherapiesto
regulate eating behaviors, nutrient partitioning, and energy expenditure (Ioannides-Demos, 2005). Weighing themselves regularly, usually onceper day to onceper week 4. Early 1950s: G. Maccabee D, Sheppard BC: Prevention of percutaneous endoscopic gastrostomy stoma metastases in patients with active or ophaqming and energy expenditure (Ioannides-Demos, 2005).
Endosc17:1678, 2003. An important variable is the level of plasma insulin during and after exercise. Hypoglycemia can occur because of insulin-enhanced muscle glucose uptake by the exercising muscle. Normally the endothelium promotes dilation of the blood vessel, less smooth muscle cell growth, and prevention of an antiinflammatory response
(DavignonandGanz, 200+). Inatherosclerosis the endothelium becomes dysfunctional beforean atheromaor plaque, a more seriouslesion, develops. fupiration is common in infrns, children, and adults who are frail, have frequent coughing spasms, are unable to effectively chew or swallow their foods and beverages, or have inadequate head and neck control
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during eating. 3 b i l l i o nD N A subunits(the basesA, T, C, G). In some of the studies their role as complementary therapy and to a lesser degree in eradication are promising (Hamilton-Miller, 2003). How would you help him structure an eating plan? During this period dialysismay still be required, and careful attention must be paid to fluid and
elecuolytebalanceand appropriatereplacement. Repons indicate that some critically ill patients have discoloration of the skin, urine, serum or other body fluids after ingestion of the blue dye and that some have died within days of dye ingestion. Energy: use kcaVml formula B. Concentration (osmolariry) B. Topical fluoride sorrrces include toothpastes
gels, and rinses used by consumersdaily, along with more concentrated forms applied by dental professionals in the form of gels, foams, and rinses. For example, should individuals be tested for a diseasefor which there is no cure? The long-term use of spices, either as protective or harmful agents, requires further study. Of note, tumor development at
the percutaneous feeding tube stoma site has been documented in over 20 individuals between 1989 and 2002 (Thakore et al., 2003). Vitamin C is a nutrient required in very small amounts to allow a range of essential metabolic reactions in the body. Fiber or carbohydrate that cannot be digested by human enzyrnes, although digested by colonic
microflora into short-chain fatty acids, is frequently added to enteral formulas. qrns spooJ/$.eJE ruo{ lnq 'poo8,fiyereua8 $ spooJ uro-g &rlqelre Eorq umrrle3 'frryqepe,reolq req81q rpq311se a,rtq leu uoruB eqt sB elBrlrJ urEluoJ suol} BJEderd rra; u te,raznoq l?r[t lpoo8 &a,r sr suoBeurquoc uorue snorJBA Surureluoc sfueru -elddns tuog
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unrJIEJJo $unorue luarJggnsurJrtnq '1eo3rsJUar1laq ppoqs spooJ ruo{ unrrl?J Jo sle^al 1y SurqceaS 'sluarrnu Ienuesse Ja{ro Jo uopse8uroc eqr Jo esneJeq speeu umrJ -pc Surfiddns JoJ lsJy pepuauruoJer erB seJrnos pood 'ueruo^l rFpe pue saleureJaSeuaa] rc1 Avpfiut 00S luuoprppr ue dlqSnor roJ paau erfi otur (ege -JeAeuo 'atelsuerl srrJgap
eseqJ'a8e;o sreed gg ra1? What are the interrelationships between chronic obstructive pulmonary disease, food inake, and nutrient metabolism? Commonly used DEA Schedule fV catecholaminergic agents such as phentermine have a low potential for abuse. Mycobaaeriam, other species or unidentified species, disseminated or extrapulmonary
Padovani [Cet al: Gene polymorphisms the TNF locusand the risk of myocardialinfarction, ThrombRes 100:263,2000. The timing of meals or snacksrelative to the gasuointestinal side effects of cancer treatment may have a bearing on subsequent learned food aversions. These aversions develop when specific foods are associated with unpleasant
syrnptoms such as nauseaand vomiting and psychological stimuli such as anxiety. Other risk factorsfor CLD and BPD includeperinaal infection, meconium aspiration, tracheoesophageal fistula, and generalized Disease905 for Pulmonary CHAPTER 35 l MedicalNutritionTherapy infections. Heber D: Vegetables, fruits and phltoestrogens in the prevention
of diseases, J PostgradMed 50:145,2004. Bozzetti F et al: Postoperative enteral nutrition in malnourished patients with gastrointestinal cancer: a randomized multicentre trial. Posteruption, diet and nutrient intake continue to affect tooth development and mineralization, enamel development and strength, and eruption patterns of
the remaining teeth. This model is made up of an integration of tle following tleories: TM (Prochaska and DiClemente, 1982, 1986), MI (Miller and Rollnick, 1991), brief negotiation flVatson and Tharp, 1989), and behavioral self-management. Becausefatty acids with double bonds are vulnerable to oxidative damage, humans and other warm-blooded
breathtaking high-definition photographs sounds like your style, then Pexels is one place to go. Mistakes in the genes are being correlated with dysfunction and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of genetics in health and disease. This evolving appreciation for the central role of
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operativeweight change, J Heart Lang Tiansplant2421424,2005. Osteoporosisoccurswhen the BMD becomesso low (greaterthan 2.5 SDsbelovrhealthyvalues) that the skeleton is unable to sustainordinary strains. A study of 200,000 women 50 yearsor older who havehad BMD measurements (or relatedmeasurements) at routine office visis showed that
rouglrly 40o/owereclassified asosteopenicand, 7"/"asosteoporotic, according to WHO values (Siris et al., 2001). This alarming fiodi"S suggests that many perimenopausal women are at risk of fractures. The nutritionist reviewed potential scenarios to assist in solving this
*Daily values (DVs) are reference numbers based on the recommended dietary allowance. Liquids are rapidly cleared from the mouth and have low adherence (or retentiveness) capabilities. (01plt /louu g'g7l1ufiu 0[= -Fr) CI unuetr lxorp, {q-57 Suneynrrc daa4 or $lnpe roJ satsls C unuetr^Jo depTurun 009 ol 00/ spueruuroJaJ.,rrou (t66t 'tg'SZ reur6
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euoq ur eOueqcluaclod reuung-6uudg rolurM-llel sqluouJgl re^o O (HO) 9Z pue HId ur se6ueqcleuoseos e6 qal 6nV z6 qsl t6 6nV c-Ho"gu --il* lrld --{}- oz0t0 0t \o o E) GI oz o 0e ov ssaulll puPrlllEaHrol uorlrrpN t t IUVd nzg 24 { Nutritionand BoneHealth 625 CHAPTER ProteinIntake VitaminK Intake Protein is generally considered to have an
anabolic effect on bone. Rosiglitazone (Avandia) and pioglitazone (Avandia) and pioglitazone (Actos) are the two TZD drugs currently available and have not been associated with liver iniury. lcdrycereal 1 banana 1 c whole milk 1 slicetoast I T peanutbuner 2. In subjects with t)?e 1 diabetes, a Origin 777 of Nondiabetic CHAPTER Mellitusand Hypoglycemia 30 I
MedicalNutritionTherapyfor Diabetes high-fiber diet (56 g daily) had no beneficialeffectson glycemic control (Lafranceet al., 1998). Another study of subjects with type 1 diabetes high-fiber diet (56 g daily) had no beneficialeffects from II to
27 9/1000kcal did not improve glycemia, insulinemia, or lipemia (Hollenbeck et al., 1986); whereas anotherstudy comparing 24 g of fiber per daywith 50 g of fiber reported improved glycemia, insulinemia, and decreased plasmalipids (Chandaliaet al., 2000). Therefore it appears that ingestion of large amounts of fiber (=50 g/dag is
necessary to have beneficial effects. The three-carbon molecule, glycerol, which is water soluble, is added to the emulsion to provide osmolarity. Our lives do change, and, if you feel differently later on, I will always be available to talk with you. During the menopausalperiod total cholesterol, and triglyceride levels inespecially in the menopausalperiod total cholesterol.
crease; and HDL cholesterollevel decreases, women who gain weight. The most common is a deficienry of medium-chain acyl-coen4..rne A (aryl-CoA) dehydrogenase. Lewington S et al: Age-specificrelevanceofusual blood pressure to vascularmortality: a meta-analysis of individual datafor one million adultsin 6l prospectivesildies: prospectivestudies
collaboration, I-anca 360:190t, 2002. The primary goals of nutrition care for patients with COPD are to facilitate nutritional well-being, maintain an appropriate ratio of lean body mass to adipose tissue, correct fluid imbalance, manage drug-nutrient interactions, and prevent osteoporosis (HarikKhan et a1., 2002) (see Appendix 31). Stron Eflavored, acidic
or spicy foods should also be avoided. Heipes simplex virus and Candidaalbicansaccount for most oral infections (Eisen er al., 1997). fly as an Individuals who have diabetes mellitus and ischemic heart diseasemore frequently developed in the compared with patients without diabetes (Rosanoet al., 2006). Diabetes is an especially strong risk factor for HF in
women. The prevalence of both hlpertension and diabetes increases with age, making the elderly particularly vulnerable to HR Even fasting blood glucose elevations (60 mg/dl inRiskFactors crease) were predictive of new cases of HF in a sample of The Framingham Study is a 50-year epidemiologic study of elderly people, mean age 72 yers (Barzilay et al.
2004). When either overfeeding or underfeeding interventions were made, the younger men exhibited spontaneous hypophagia (undereating) or hyperphagia (overeating) to alter body weight accordingly. States to the CDC. FogelholmGM et al:
Bone mineral densityduring reduction, maintenanceand regain of body weight in premenopausal, obseewomen, Osteoporos Int 12:199,2001. Fluoride may be unintentionally added to the diet in a number of ways, in-cluding the use of fluoridated water in the processing of foods and beverages. Role of Fiberian Diegenstrates and beverages are not because of the diet in a number of ways, in-cluding the use of fluoridated water in the processing of foods and beverages. Role of Fiberian Diegenstrates are not because of the diet in a number of ways, in-cluding the use of fluoridated water in the processing of foods and beverages. Role of Fiberian Diegenstrates are not because of the diet in a number of ways, in-cluding the use of fluoridated water in the processing of foods and beverages. Role of Fiberian Diegenstrates are not because of the diet in a number of ways, in-cluding the use of fluoridated water in the processing of foods and beverages.
role of fiber in the GI tract is complex and varies based on the solubility of the fiber. End ingthe Session when working with a client. Foods of moderate- or lowPhe content are used as a supplement ro the formula/medical food mixture. Nemeth E, GanzT: Regulation of iron
metabolismby hepcidin, Ann Rets Nutr 26:323,2006. Williams syndrome is characterized by cardiac defects that have nutritional implications. Up to this point discussionshave focused on changes the client has already made. Most studies point out that systemic hipeftension, another factor that mitigates the progressive loss of renal function, must be
well controlled to produce benefits from protein restriction. The National Kidney Foundation's Kidney Foundation's Kidney Foundation's Kidney Foundation on 0.6 g/kg/day of protein and 35 kcahg/day. These feedings can be given by pump
or $avity drip. Litde evidencesuggeststhat intakes of fewer than 800 calories daily are of any advantage. Most VLCDs are hlpocaloric but relatively rich in protein (0.81.5 g/kg IBW per day); they are designed to include a full complement of vitamins, minerals, electrolytes, and essential fatty acids, but not calories; they are given in a form that
completely replaces usual food intake; and they are usually given for a period of 12 to 16 weeks Their major advantage is rapid weight loss. Chemically defined formulas usually have minimum amounts of lipid. Hypoglycemia can also occur during or immediately after exercise. Blood glucose levels before exercise reflect only the value at that time, and
it is unknown if this is a stable blood glucose level or a blood glucose level that is dropping. The Framingham Children with higher intakesof fruits, veget bles (a combination of four or more servingsper day) and dairy products (two or more servingsper day) had lower SBPcompared with those with lower intakesof fruits, veget bles (a combination of four or more servingsper day) and dairy products (two or more servingsper day) had lower SBPcompared with those with lower intakesof fruits, veget bles (a combination of four or more servingsper day) and dairy products (two or more servingsper day) had lower SBPcompared with higher intakesof fruits, veget bles (a combination of four or more servingsper day) and dairy products (two or more servingsper day) had lower SBPcompared with those with lower intakesof fruits.
thesefoods (Moore et al., 2005). Becauseadherenceto dietaryinterventions may be particularly problematic among children and Adolescents with Hypertension SBP Percentlle* Requency of BP Measurement for Hypertension SBP Percentlle Percentlle Percentle Percen
Therapeutlc Ufas$e Gharges Normal 89 mmHg Antihypertensive DrugTherapy . One of the greatest public health successes the twentieth century has been the decline in age-adjustedmortality rates {iom C\{D (Thom et al., 2006). org.nz www.nutri genomics.ucdavis.edu www.nutri genomics.ucdavis.edu www.genome.gov www.ncbi.nlm.nih. Disorders of
the esophagusmay be causedby derangement of the swallowingmechanism, obstruction, inflammation, or abnormalsphincterfunction. A feeding nasojejunostomy tube can be placed at the time of surgery permitting early postoperative tube feedings. ActionTimesof HumanInsulinPreparations Type of Insulin Rapid-Acting Insulin lispro
(Humalog) Insulin aspart Q. {ovol-og) Insulin glulisine (Apidra) Short-Acting Regular Intermediate-Acting NPH Long-Acting Insulin glargine (Lantus) Insulin determir (Levemir) Mixtures 70/30 (70"/"NPH, 307oregular) 7 5/25 (75"/" neutral protamine lispro [NPL], 25% lispro) 70/30 (70% neutral protamine asparr [NPA], 30% aspart) Onset of Action 250
 mg/dl but generally 94; MCHC >31) Mesaloblastic Vitamin B12deficienry Folic acid deficienry Folic acid deficiency Folic acid deficie
(MCV 150 1 1 5 + 5 0 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160 > 160
DiagnosticdU suppression Normal 50 is often unrecognized subde B12deficienry, producing inadequatery. nthesis of new brain cells, but no anemia, FASEBJ 15(2, Part I): A59, 2001a. Chemically defined formulas are specialized monomeric formulas that have been hydrolyzed to contain short-chain carbohydrate or simple sugars and peptides or amino acids.
 Remove stylet wire from feeding tube and follow Silk tape standard feeding administration and mbe care Cup with warrn water procedures. sle^al pepueuruoJeJ aql leoru tou op osp dagr lnq 'sapura; uetp stunorue ralear8 ler{a,eruoserunsuoJ or rfia4g aJoru aJBuaw 'sIV dlqe:aplsuor arlr urr1J ssel arunsuoJ uaruo^\ lueJm ol 8ur llnpu pue uaar '(/002
 'SgNVFIND BlBp SENVI{N -proJrv 'salerueJdlenadse 'srea,t 11 puodeq sa8e roJ IV 1e papuaruruorer erfi leeru tou op {1ec1d1bso>lslurumrrle3 '(Ja^oJ luo{ ePrsuruo se{elur papueuruoJer Lreterp egr ees) alclc e;g arp ssoJJe rapuaS r{f,eeJoJ erues arfJ eJe unrJIeJ roJ sIV 'lrodar rsatel eqr ur depTSur ol peseerrur se,r (srea,(61 or dn) acuac 00tI
selopu q8nortp (sree, { a8u) acuacselopeerdruo.r; unrJIBJ 11 roJ IV erIJ 'payFuenb aq ppoc aycdr eJII eW;o se8rr etp Surrnp C urruutrl pue umrJIBJ JoJ $uerueJmbar ueaur aql ,(1uo esnrcaq '(s1y) sa>1erur etenbepe se uarug oJB sluerrlnu Jet1lo aeJ e pue 'q urru?lrl (ulnrclec JoJ suonupue[uuroJaJ eurJrpew Jo elntnsul eqJ 'uonueDe qJnu pa^reJeJ sEq
srsorodoalso Jo uogualeJd Lreurrrd et1t ul e)Flur tunrJIBJ spoolruoiJunrsleS a)lPlulunr3lPS 'tb1. All dietary forms of sugar, including honey, molasses, brown sugar, and corn q, Tup solids, have cariogenic potential and can be used by bacteria to produce organic acid by-products ofmetabolism. Expectorant herbs include anise, fennel, and thy-
Progression is influenced by the overall health of the host and the integrity of the immune system. govlcamonpubmed./ http://www. Energy expenditure in physical activity can be estimated using two methods: (1) the method shown in Appendix 28, which represents energy spent during common activities and incorporates body weight and the
duration of time for each activity as variables, and (2) using information in Table 2-2, which representsenergy spent by adults during various Energy expenditure is determined by the amount of oxygen metabolized by the body. d 6 d 6 t6. The selection of the enteral nutrition formula for an individual with cancer is determined by several factors,
including the functional capacity of the gut, the individual's nutrition status, considerations ofcost and convenience, and the physical characteristics of the formula such as osmolality, presence of concomitant encephalopathy,
repletion of dietary protein may be limited or restricted; refer to Chapter 28. Such gels are effective in reducing the risk of coronal and root decay and tooth loss ftVeintraub et al., 2006). LamPs Ultraviolet Modalities OtherTreatment Several other approaches to prevent fractures have been demonstrated to have benefits in small study populations;
they have not been adequately tested in the elderly. 100:944, 38 PARTI i NutritionBasics Harris JA" BenedictFG: A biometric srudyof basalmetabolismin man, Pub No. 279, Washington, DC, 1919, CarnegieInsritute of Washington, DC, 1919, CarnegieInsritute of Washington. At times this weaning processmay not be practical, and parenteral therapy can be stopped sooner. Identifying the genetic
aggressive, abdominalliposuction does not significantly improve obesity-associated metabolic abnormalities. cisorders G e n e t iM c e t a b o l iD disordersareby far the most common Autosomal-recessive inherited disorders G e n e t iM c e t a b o l iD disorders G e n e t iM c e t a b 
calledinbomerrors of metabolismr' these disorders). AIDS, or advanced HfV disease, is the diagnostic term reserved for persons with at least one well-defined, lifethreatening clinical conditions, induced immunosuppression Box 38-1, Category C). tgncn:ed ur r1rlueg auog r0] pue 'pra -ue8 ur WIEag Jo
papeeu slueulnu rerpo IBJa^asur rIJrJ osle eJBruntclec Surureluoc spooj a{r tu{t eJEauole spooj uro{ $uerueJrnbeJ runrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue 'secrn( puc s{lru f:repuou pegproj -unrJIEJ Supeau Jo stgeueq lBuoprppv 'suoFdo ruelleJxe err selqelaSa,r ,!re1 uear8-{rep pue s'secrn( puc s'ellex b'secrn( puc s'ellex 
runrJleJ dlcp rrarp laau ol slenpr rput tsoru roJ, {ern tsaq er1t eq or s-readde'sun€o,t pur 'sesaeqc'q1nu runnlec-q81q dlercadsa 'stcnpord &rep;o uopdunsuoc aqa lrrlqelreleorq runtclec ,rl.ol e^Er1salqure8ezrSururrluoc-ereyexo qSrq Jer1lo aeJ E pue qcturds ta,ra,ro11 'peqrosqe l:e,r s sueeqdosuror; larn runrJlec pue :frqrqelrt^Eorq e,req doqc poo8
oqe pue {oq 'ep1 'ryocco-rqse qJns selqera8an,fea1 ueer8 ldup e pearq ;o s8ulr-les FJaaeseurnsuoJ oga esorp JoJ urnrJleJJo ocJnos pooS e eq '{eur pteJg rceqr!\ 'sntets uoFrrnu unrJIEc tcege dlasre,rpepue x\ol eq r(etu 1rqcuurds s? Alcohol Consumption Moderate alcohol consumption (i.e., one or two drinks a day) is associatedwith a significant
reduction in CHD risk (Parks and Booyse, 2002), but the use ofalcohol is not recommended as an intervention strategy. To estimate a person's energy requirements using the Institute of Medicine EER equations, it is necessary to CHAPTER2 Energy 35 in Children Activity Physical Activity Physical Activity Physical and Walking Equivalence PAt Gategory
PAt Values Sedentary Lowactive Active 1-1.39 l.+-1.59 l.5,2.2,2.9 for PAL: 1.5 1.6-1.89 3,4.+,5.8 for PAL: 1.5 1.6-1.89 3,4.+,5.8 for PAL: 1.7 5.3,7.3,9.9 1.9-2.5 for PAL: 1.7 5.3,7.3,9.9 1.9-2.5 for PAL: 1.7 5.3,7.3,9.9 1.9-2.5 for PAL: 1.8 7.5,10.3,14 12.3,16.7,22.5 for PAL: 1.7 5.3,7.3,9.9 1.9-2.5 for PAL: 1.8 5.3,7.3,9.9 1.9
these disorders, the role of diet and nutritional status has been reevaluated. "How would like to change?" The second step is to consider options. Argiles JM et al: Cytokines in the pathogenesis of cancer cachexia, Cutr Opin Natr Metabol Care 6:401,2003. Additional
Sequence TheDecayProcess Eating sequence and combination of foods also affect the caries potential of the substrate. Dia bet eM sellitus Diabetes is associated with several oral manifestations, many of which occur only in periods of poor glucose control. ed4. The caries are the end result of tooth erosion characterized, by erosion of the palatal and
buccal surfaces of the CHAPTER25 1 Nutrition for Oraland Dental Health 643 maxillary anterior teeth (Little, 2002). PA coefficientscorrespond to four physicaf activity levels (PAL) lifestyle categoriesised entary, low actiae, actiae, and aery actiae. Chemically defined formulas
can be viewed as diseasespecificformulaswhen prescribedfor conditions of malabsorption and maldigestionsuchaspancreatitis, short bowel slndromes, or HfV/AIDS related gastrointestinal pathology. Disease-specific formulasare also available for patients who have renal, hepatic, or cardiopulmonary disease, immunosuppression, glucose intolerance, or
specialneedssuch aswound healing. The efficary of disease-specific formulas is controversialsince evidencefor the necessity fthese products limited by few controlled studies. They are generally much more expensive than standard formulas. Sands MJ: Vascular accessin the adult home infusion patient, JPEN J Parenter Enteral Nutr 30,557,2006. In a controlled studies.
study of more than 1600 children in Manhattan, the level of untreated decay was 9lo/o, significantly higher than the U.S. national population, which is 76% overall and 76Yo for blacks and Mexican-Americans within the population, which is 76% overall and 76Yo for blacks and Mexican-Americans within the population, which is 76% overall and 76Yo for blacks and Mexican-Americans within the population (Albert et al., 2002). In general, children from low-income families experience the greatest amount of oral disease, the
integrative model of change, Psyclother Tbeoty Rr Praa 20:161.1982. stage group (Institute of Medicine, 2002;2005). Effors to test the efficacyof dietarysupplements route that the grandmother have the child's diet and
nutritional statusevaluatedby the clinic's registered dietitian. fu a bolus of food is moved voluntarily from the mouth to the phanyrrx, the upper sphincter the lower esophagus; (LES) relaxesto allow the food bolusto passinto the
stomach(Figure 26-l). Suueduroc lelrl pezluopuer V: IE ra rf 1114 ra8unlg '4967 'arournleg 'sulTIrA { srue {ll1\ llocurddrl 'g pa 'atot pawpritslu8orp pua uluuruN:5 durnlg-rlocsg 'l]runururtotne '2002'lttl I tossy palrrg,ts1 ur uratsds eunrurur erp pu?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'I:I paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u?splru lrleg g-1q: p la q se8rg '1002 'III paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u.splru lrleg g-1q: p la q se8rg '1002 'III paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u.splru lrleg g-1q: p la q se8rg '1002 'III paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u.splru lrleg g-1q: p la q se8rg '1002 'III paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u.splru lrleg g-1q: p la q se8rg '1002 'III paIN uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte^Jesqo ue: talp u.splru lrleg g-1q: p la q se8rg uraqv luaualqtuoS 'tlpr!'s 31rgg leuolte 'tlpr!'s 
uqe8e^, ra,erdytsour e Sursn pa,rordrur eurorpuds er81e. {urorqrg:le te SW uosPIBuoC ' 0 0 0 2 ' L t 6 ss l Q atnaq[ uuv 'dpnrs ropd e :]no3 uI sle^al uratordodq Pue elBrn rurues uo leJ peterntesun pue urato.rdJo e {?tur leuouodord pesBarJurPuB uonJrJlso.l alerp^{qoqreJ/auoleJ eleJoPotu r[]r,{\ PeterJossessol rqErern;o slce#e lElcgauefl :le re Hdd uratordodq Pue elBrn rurues uo leJ peterntesun pue urato.rdJo e {?tur leuouodord pesBarJurPuB uonJrJlso.l alerp^{qoqreJ/auoleJ eleJoPotu r[]r, {\ PeterJossessol rqErern;o slce#e lElcgauefl :le re Hdd uratordodq Pue elBrn rurues uo leJ peterntesun pue urato.rdJo e {?tur leuouodord pesBarJurPuB uonJrJlso.l alerp^{qoqreJ/auoleJ eleJoPotu r[]r, {\ PeterJossessol rqErern;o slce#e lElcgauefl :le re Hdd uratordodq Pue elBrn rurues uo leJ peterntesun pue uratordod pue uratordod pue elBrn rurues uo leJ peterntesun pue uratordo
 ulessec ' sllucluv 9002,s60ttts runaqd 'snrrqtre proteunel (J uI uoltel?cse a8esop Surrnp slrogo etBxeJtoqtelu qlr. (r uor) srJosseJreql pue r(enqred erEIoJeTr ur sJelJeurorq f,IloqBlalu Pue JrruouetsoJeuueqd :l? Chewing pio-ot., saliva production and may account for the reduced cariogenicity of fermentable carbohydrates consumed with a meal.
GlasgowRE et al: Practicalbehavioraltrials to advance Detail: Should patients with advanced, incurable cancers ever be sent home with total parenteral nutrition? Binding results in a conformational change in the stmcture of the DNA molecule
that results in RNA polymerase being able to bind and transcribe the PPARgammaregulated genes, leading to a host of lipogenic and proinflammatory activities. For example, Asian women who migrate to urban areas and change their lifestyles from more agrarian to less active ones also have increased risk of hip fractures (I-au et al., 2001). The
prolonged acid exposure increases the risk of developing more serious esophagitis (Kahrilas and Lee, 2005). Patiens with disease-related physical limitations may be helped by assistance with food shopping and meal preparation. But reduced activities in daily life may also contribute to bone loss. Carbohydrate metabolism by cells also causes a shift of
 electrolytes to the intracellular space as glucose moves into cells for oxidation. They were developed to help consmem detemine if a food contains a lot or a litde of a specific nutrient. Tircker K, Mayer M: Low plasmavitamin B12is associated with lower bonemineral density: the FraminghamOsteoporosis Study, J BoneMiner Res20:152,2005. Ryder K-N.
et al: Magnesium intake from food and supplements with bone mineral density nealthyolder white associated snbjecs, J Am Geriatr Soc53 1875, 2005. Individual amino acid additives such as glutamine and arginine are used for research purposes, but they have not been-approved for general clinical use in parenteral solutions. all carbohydrates
glycogen is stored hydrated with water. The goals of nutrition care in patients wirh RF are to meet basic nutritional requirements, preserved ean body mass, restore respiratory musclemassand strength, maintain fuid balance, improve resistance to infection, and facilitate weaning from oxygen support and mechanical ventilation by providing
energysubsrrates without exceeding the capacity of the respiratory system to clear carbon dioxide. Among those who develop pernicious anemia, most are over 60. When taking these medications, it is necessary to eat a normal, balanced diet, maintaining a consistent amount of vitamin K, and avoiding drastic changes in dietary habits. The buffering
capacity of cheese and milk makes them desirable foods to eat at the end of a meal or in combination with other fermentable 15 minutes, causing caries-promoting quent meals and snacks, often high in hydrate, increase the cariogenicity of more than a diet consisting of three activity. At least three forms of homorystinuria exist, each requiring a
different nutritional approach. Parenteral nutrition has been shown to improve long-term survival in patients (Bozzed et al., 2001). Intensive supplementation has been associated with improved weight gain, slowed decline in
pulmonary function, decreased incidence of respiratory infection, and improved sense LE, Gonschlich MN[: Contempnrnrynutrition sapport practice, ed 2, St Louis, 2002, Saunders. Renwick AG: Acceptable daily intake and the reg-ulation of intense sweeteners, FoodAddit Contam 7:463, 1990. A number of diet therapies consist of
 specific foods prepared and consumed in a specified manner. Centersfor DiseaseControl and Prevention: Recmnmendations for usingfluoridetopreaentand controldentalcaries the United States, http://www.cdc.gov/mmwr/previedmmwrhtrnV rr50l4al.htrn, accessed May 15,2006. The energy cost of physical activity is the most variable of
 factorsrelatedto an individual'sTEE, and can be altered by the individual. Some of these minor differences do not affect health and others increase the risk of developing a disease. The counselor asks about alternative strategies and options and then asks the client to choose from among them. The resultant enrope insufficiency causesmaldigestion of
food and malabsorption of nutrients. HurstJD, Gallagher AI: Energy, protein, micronutrient, and fluid requirement. Another problem that may arise after gastric bypassis ice-cube pica. o,i *6 'to EUD 9tr! -: dtr f E f, l!6u) 33 trq < b" TS \o6 Pa Et ** T_t gE > F O " s d APPENDIXESL229 : ^' E B>" H>" tro.lq - -d:ri Kdld r'. Intermittent feedings, as well as
bolus feedings, should not be used with patients at high risk for pulmonary aspiration. Ulrey KL, AmasonP: Intercultural communicationbetween patients at high risk for pulmonary aspiration. Ulrey KL, AmasonP: Intercultural communicationbetween patients at high risk for pulmonary aspiration. Ulrey KL, AmasonP: Intercultural communicationbetween patients at high risk for pulmonary aspiration.
presence of glucose and is a somewhat less potent secretagogue (Inzucchi, 2002). Health and Human Services. Normalprotein /> L-zl V) Some DNA variations have no negative effects Low or
nonfunctioning protein F-/r- |-") \- - > bxJ other variationslead to disease(e.9.,sicklecell) or increased susceptibility to disease(e.9.,sick
been remarkable in that over 90% of symptomatic patients after treatment with vitamin 812 regain independence in conducting activities of daily living (ADLs) (see Chapter 31). storage Ial ...... foological symptomatic patients after treatment with vitamin 812 regain independence in conducting activities of daily living (ADLs) (see Chapter 31). storage Ial ......
easymasticationandswallowing and small, frequentmeals of relatively high caloric density. The etiology of these reported low levels of iodine intake are not fully elucidated. Pathophysiology Thiamin deficiency is the accepted primary cause of WKS. Central access refers to catheter tip placement in a large, high-blood-flow vein such as the superior venation.
cava; this is central parenteralnutrition (CpN). Her exposure to sunlight? Reasons for growth failure among infants include increased energy needs combined with inadequate dietary intake, gastroesophageal reflux, emotional deprivation, and chronic hypoxia. Adjustrnent of medications or administration methods can frequendy correct the
diarrhea. The addition of soy polysaccharide, a prebiotic, pectin, and other Complications of Enteral Nutrition Access Problems Pressurenecrosis/ulceration fupiration fupiration Microbial contamination Complications Gastrointestinal functions.
Nausea,/vomiting Distention/bloating/cramping Delayed gastric residuals Diarrhea Osmotic Secretory Medicarions Tieatrnent/therapies Hypoalbuminemia Maldi gestion/malabsorption Formula choice/rate of administration Metabolic ComPlications Refeedingry.ndrome Drug-n utrient interactions glycemia Glucose
intolerance/hyperglycemia,/hypo /overhydration Hyperalicon Hyperal
can be broken into functionally different segments: the proximal convoluted tubule, loop of Henle, distal tubule, and collecting duct. The presence of hiaal hernia is not synonymous with reflux, but it increases the likelihood of sr'mptoms and complications. Normal irway mucusis a substanceconsisting of water, glycoproteins, and electrolytes. Do you
think that this happened as a kind of immediate response to his death and that you might have just decided that all of the goals were too strict at that time?" (Pause) Client: "Well, you are probably right." Natrition Counselor: "Could we look at r, vhereyou are now and try to find things that will work for you now to help you in following the goals we have
set?" These strategies to help in dealing with the resistant client offer tools to ensure that nutrition counseling is not ended without appropriate attempts to turn difficult counseling situations in a positive direction. Medical Treatment Tieatment Tieatment with thiamin should be started immediately, and adequatehydration should be provided if WKS is
20 | Intervention: Enteraland Parenteral NutritionSupport 511 CHAPTER DietitiansPlacingEnteral FeedingTirbes Procedure f t is accepted that enteral feeding whenever it is possible. However, safelygain- This procedure takes approximately 10-45 minutes. Methods Compounding Requirements During
DailyElectrolyte TotalParenteral Nutrition-Adults Electrolyte Parenteral Equivalent of RDA Calcium Magnesium Phosphate Sodium Potassium Acetate 10 mEq 20-40 mmol 1-2 mEq/kg * replacement 1-2 mEq/kg fu neededto maintain acid-basebalance As neededto
maintain acid-basebalance From National Advisory Group on Standards, and Practice Guidelines for ParenteralNutrition, ASPEN: Safepracticesfor parenteralnutrition formulations, /PEN J Parenteralnutrition formulation formul
of a meal, may decrease the cariogenicity of the meal (Kashket and DePaola, 2002). Seea/.roNurition assessment nutritional genomics in,364-382. metabolic rate during selected physical activities of varying intensities and are expressed physical activities and are 
provide Iower percentages of the DV also contribute to a healthful diet. Cigarette smoking has been studied most thoroughly, primarily because it is the main use of tobacco, and the exposure from direct smoke inhalation is considered greater than with other forms (see Clinical Inszglr: Smoking and Gastrointestinal Function). Others are not
responsive to 86 and need a combination of folate, vitamin B12, choline, and betaine to convert homorysteine to methionine; and others must limit their methionine intake. "In what wayshasfollowing your diet beena problem?" Concern Example 4 Client: "I just dont want to do this any more!" Nutrition Counselor: "You sound hassled by other priorities
and feel that the changes in your eating habits just get in the way. Much of this process is active and requires a large expendirure of energy in the form of adenosine triphosphate (ATP). It is recommended that, in addition to the injections of vitamin, the diet be liberal in use of high-biologic value proteins and supplemented with iron, vitamin C, and
regulations governing product claims for health and well-being (Mueller and Nesde, 1995). Was that point in time different than now?" ShiftingFocus Clients may hold onto an idea that they think is getting in the way of their progress. The counselor might question the feasibility of continuing to focus on this barrier to change when other barriers may
be more appropriate targets. Is organic food healthier? Vegetarian and low-fat diets increase the formation of large VLDL particles. HasseJ: Examining the role of rube feedingafter liver Nutr Clin Praa 21:299,2006. llSaturated fat and sodium get a score of 8 for the inuke levelsthar reflect the 2005 Dietary Guidelines: < 10% of calories from saturated fat and sodium get a score of 8 for the inuke levelsthar reflect the 2005 Dietary Guidelines: < 10% of calories from saturated fat and sodium get a score of 8 for the inuke levelsthar reflect the 2005 Dietary Guidelines: < 10% of calories from saturated fat and sodium get a score of 8 for the inuke levelsthar reflect the 2005 Dietary Guidelines: < 10% of calories from saturated fat and sodium get a score of 8 for the inuke levelsthar reflect the 2005 Dietary Guidelines: < 10% of calories from saturated fat and sodium get a score of 8 for the inuke levelsthar reflect the 2005 Dietary Guidelines: < 10% of calories from saturated fat and sodium get a score of 8 for the inuke levelsthar reflect the 2005 Dietary Guidelines: < 10% of calories from saturated fat and sodium get a score of 8 for the inuke levelsthar reflect the 2005 Dietary Guidelines: < 10% of calories from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels from saturated fat and sodium get a score of 8 for the inuke levels fa
www.Kidney.org. Phytates from whole grain breads, cereals, legumes and other products can decrease zinc absorption. If intracellular electrolytes are not supplied in sufficient quantity to keep up NutritionSupport 523 Enteraland Parenteral C H A P T E R2 0 I Intervention: with tissue growth, low serum levels of potassium, phosphorus, and
magnesium develop. LABORATORY WORK.UP: A. @4unw) Humphries SE et al: The interleukin-6 -174G/C promoter with risk of coronaryheart disease polymorphismis associated and systolic blood pressure in healthy men, Eur HeartJ 22:2243,20Q1. Disease at the Ghromosomal Level In addition to changes in the DNA that occur within a single gene,
diseasecan be causedby changes in the number of chromosomes or the arrangement of the DNA within a chromosome. However, evidence for the hlpocholesterolemic effect of soluble fibers, including FOSs, s)'nthetic polydextrose and polyols, viscous pectin, guar gum, oat bran, psyllium husk, beans, legumes, and fi:uits and vegetables, is conflicting
Symptoms of right upper quadrant discomfort, hepatic failure leading to encephalopathy and multiple-organ system failure. There should be a thorough nutrition assessment of the patient before the initiation of therapy and reassessments and support of the patient before the initiation of the patient before the initiation of therapy and reassessments and support of the patient before the initiation of the patient before the patient before the initiation of the patient before the patient befor
monitoring throughout the entire transplant course. seafoodcontamination, in pregnancy and lactation, 180 microencapsulated fish oil powder, as DHA and 778-779 minerals as, 102-138. However, informing patients that they
have metabolic syndrome based on definitions that have not been agreed is not wise (Reavenet al., 2006). Ratherit is suggested to effectively treat the underlying cause of the individual risk factors. This thought is predicated on the observation that insulin-mediated glucose uptake is highly variable in healthy individuals; only one third of these would truly
be insulin resistant and at risk for increased expression of other risk factors and CVD. At least a small percentage of intolerances to spices may be related to specific allergic responses (Scholl and Jensen Jarolim, 200+). What is the nutritional significance of Jerome's resection of the ascending color and ileocecal valve? ter, protein, and mineral components
ftVagner and Heyward, 2000). Blot W]: Prevention of esophageal cancer: the nutrition intervention trials in Linxian. Changes in the DNA are the basis for evolution; thus clearly not all mutations are harmful; some actually improve function, and many, referred to as silent mutations, have no effect. Vegetable oils, nuts, green leafi' vegetables, and
fortified cereals are common food sources of vitamin E. The maintenance of improvements at I year supports the prediction that long-term improvements in body weight could have a long-term improvement in body weight could have a long-term improvem
to be metabolized. MokdadAII et al:Actualcauses of deathin the U.S.2000, JAMA 291:1238, 2004. Children have increased nutritional requirements for growth and development that must be met despite extended periods of cancer treatment. 157(10):888, Am J Epidemiol GillespieWJ et al: Vitamin D and vitamin D analoguesfor with involutional and
any weight loss achieved. Nutritional care in these conditions is concerned primarily with the consequences of poor circulation throughout the body. DRI reports for nutrients are now complete. Nutrition and health professionals should also use the most updated food composition throughout the body. DRI reports for nutrients are now complete. Nutrition and health professionals should also use the most updated food composition throughout the body.
analysisprogramshave beenrevised to include the most up-to-date information. At the onset of ARI when few patients can tolerate oral feedings described include the most up-to-date information. At the onset of ARI when few patients can tolerate oral feedings described include the most up-to-date information. At the onset of ARI when few patients can tolerate oral feedings described include the most up-to-date information. At the onset of ARI when few patients can tolerate oral feedings described include the most up-to-date information. At the onset of ARI when few patients can tolerate oral feedings described include the most up-to-date information. At the onset of ARI when few patients can tolerate oral feedings described include the most up-to-date information. At the onset of ARI when few patients can tolerate oral feedings described include the most up-to-date information in the degree of the most up-to-date information in the most up-to-date information in the most up-to-date information in the degree of the most up-to-date information in 
symptoms, but in most ARF patientsW feedingmust Energt. Often the nutritionist feels obligated to solve a problem or give advice. Maybe it's the larger-than-usual viewing size, or maybe its the way the magnificent colors are arranged, but once you're hooked there's no turning back. Pixabay License/Hans/Pixabay Wallpapers WideThere's a reason
Wallpapers Wide is one of the most popular places to find HD backgrounds: it's been amassing images for ages. Neither is "not quite HD". If so, in what ways might testing be beneficial? Dairy products (nonfat milk, yoguft) enhance remineralization and combine dairy products with a
meal or snack. More than 50% of the rapid weight reduction is fluid, which often leads to serious hypotension, hypercholesterolemia, and type 2 diabetes. The quantity of enzymes to be taken with food depends on the degree of
pancreatic insufficiency; the quantity of food eaten; the fat, protein, and carbohydrate content offood consumed; and the type of enzymes used (Brady et il., 2006). (2004) for an overview of genetic variation and inflammation in reference to nutrisenomics. Nell works in an office and does not participate in any phpical activity. 1980s:
 Lifelong restriction of phenylalanineintake becomes the standardof care for PKU clinics in the United Sutes. tustsuoc patelJossB l8reua esnereq en-D sr relel er{J tudlno Aqeqord 'JEelJrmsl ssol sesneJ eJnlrpuadxe lSraua lq8re.,ra. The initial effects on glycemic control were greater than the long-term effects, supporting the role of energy restriction as
well as weight loss in glycemic improvement (Anderson and Konz, 2001). DeBusk M[.: Genetics:the nu*ition clnnection, Chicago, 2003, American Dietetic Association. Protein content C. Energy requirements are determined by the unbe used. Giving carbohydratealone (e.g., 100g over a 24derlying cause of ARF and comorbidity. The choice of the salt form
of electrolytes (e.g., chloride, acetate)has an impact on acid-basebalance. It is associated with fewer postoperative complications and shortenedlengths of stay (Bozzettiet al., 2001). In patients with head and neck cancer receiving radiation therapy, the placement of a feeding tube and enteral nutrition support before the initiation of therapy has been
shown to prevent weight loss and reduce treatment interruptions and hospitalizations for dehydration (Scolapio et al., 2001). Magnesium-containing antacids and laxatives Magnesium binds tetracycline in the gut and decreasesthe absorption of tetracycline. Their greatest advantage for patients is better mobiliW and time away from infusion.
 Registereddietitiansare obliged to be sufficiendywell informed and to advisetheir patientsresponsibly regardingCAM therapiesand the safeuseof dieary supplements. Do some research before venting next time — 1080i IS HD. It is important that the age and gendeq other acute or chronic medical conditions, medications and other treatrnents,
fluid retention, weight maintenance or gain may camouflage actual wasting of lean body mass. Mamin K is needed to make clotting factors that help the blood to clot and prevent bleeding. Because of its barrier function, the glomerulus blocks blood cells as well as molecules of moleculer weight greater than 6500 daltons such as protein. On the other
hand, a low protein intake, such as in undernutrition, generates a decreased serum concentration of IGF-1 (Ammann et al., 2000). See also Enteral nutrition physiologic development, I I 18-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I 18-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I 18-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I 18-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I 18-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I I 8-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I I 8-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I I 8-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I I 8-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I I 8-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I I 8-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I I 8-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, I I I 8-1120 low-densitylipoproteins (LDLs), 839 cholesterol, 844-845. See also Parenteral nutrition physiologic development, 844-845. See also Parenteral nutrition p
esophageal sphincter(LES), definition, 654 lower motor neuron lesions, 1070t low T3 slmdrome definition, 505 in anorexianervosa, 575 low turnover bone disease, definition, 92I lp(a) 'lipoprotein litde a' risk and, 425 cardiovascular definition, 506 gastrointestinal, 507 lung(s) cancer, 916 899-920 disease, in AIDS, 1006 diseases, lupus
erythematosus medicalnutrition therapy, overview, 1044t systemic, 1059-1060 definition, 1043 lycopene definition, 1043 lycopene definition, 1043 lycopene definition, 269 275-276 research, for men'shealthissues, 192 \.rnphoid tissue, gut-associated, definition, 1043 lycopene definition, 204 lycopene definition, 205-276 research, for men'shealthissues, 192 \.rnphoid tissue, gut-associated, definition, 1043 lycopene definition, 205-276 research, for men'shealthissues, 192 \.rnphoid tissue, gut-associated, definition, 205-276 research, for men'shealthissues, 192 \.rnphoid tissue, gut-associated, definition, 205-276 research, for men'shealthissues, 205-276 research, 205-2
424 definition, 411,810 macrominerals, 102-114. People are extremely concerned that genetic information can be misused (e.g., they might be discriminated against basedon their genotypic profile). Popular DietsandPractices Each year, new approaches to weight loss find their way to the consumer through the popular press and media. An
individual's genotype obeys the laws of inheritance, but the phenotype (the measurable expression fthe genotype) may not because fatty acid (SFA), all carbon binding sites not
linked to another carbon are linked to hydrogen and are therefore saturated. The nasoenterictube is passedthrough the nose and esophag-usand inserted into the stomach. Appendix plant and specific food types can play a significant role in the
 onset, treatment, and prevention of many GI disorders. In many casesdiet can also play a role in improving patients' senseof well-being and the costsassociated with GI disease. Table 26-1 lists disorders of the upper GI tract that are described in this chapter and the typical
s)..rnptomsand nutritional consequences. Kushi L, Giovannucci E: Dietary fat and cancer, Am J Med 1 13(suppl9):635,2002 Kushner RF: Medical management of obesity, Semin Gastrointest Dis 13:123,2002. Intakesof 0ther Dietary factors associated with bone loss have been identified. In one study vitamin K
supplementation of postnenopausal women was shown to retard bone loss (Braam et al., 2003). A good way to developrapport is by finding out how the client prefers to be addressed. Although in America it is by their given common to call strangers and acquaintances names, nearly all other cultures expect a more respectful approach. Listening
sensitivity, sharing control, accepting differences, demonsuating sincereconcern, respecting other cultures, seeking feedback, and being natural and honestare strategies important to achieving patient compliance and (Kittler and Sucher, 2001; Patterson, 2004). The underlying basisfor a and ILI and IL6 impact cardiovascular diseases usceptibil the
seeminglyinconsistentresultsis the geneticheieroeene- ity (Padovaniet al., 2000; Humphries et al., 2001). There are three parts to the negotiation process. The first is setting goals. diabetes is now considered a CHD risk factor. 'Surrnolle\s rn uoneurPJooc Jo {JBI E ur llnsal terp suoFlpuoJJatpo rpl^{ Jo uouerrdse 'a4ors Jo >lsrJlB asoql pue >lJeupuu
PeegeW Jo sJaJrreJ fun[u1urerg cnerrmerr8ur.to1yo;slenpl IPur JoJ PalFsuoc uoryo sr pue sraprosrp Sur,nolpns Sunean pue Sursses -sBur sazrlurcads gcaadsega lueuodrur sr lsr8 rsrSoyogred -ologred gcaadsega lueuodrur sr lsr8 rsrSoyogre
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Jo pue erp tE seruns -er Surpearg 'sn5eqdoseeW otur ssedol pooJeqJSur.ttoge 'sexelarrarcurqdspe8uLreqdocrJcarft elnlr slJeJluocdleF -uenbasxulreqd eqa der'r:reagl nerord ol tcnppe spJot 'uonerr5mS 'elenaye xud;q aqa pue plor(q IEro eql puu -ar ot xuf-reqdosBu er1J asolJ pa8u&uqdoro pur tua,rerd #o salB^ele arepd ryosaqa'aseqd srgrSuunp
uorssaccns prder uI IncJo Isnu stuele InoC 'seI{IrEIBIJnEJagr rsed pa11ad -ord sr snlog erIJueg,ll peteurul sr asegdpe8u&egd aga cr3o1 apnlJul surordurr(5 asegdlPa6u, {rPrld ro -orneu seruedurocce frlncAgIP)E!6PgdsIO uer;o (Eur,no1p,rs '$srxe ssau{Ba^. canned. ueruo.&\replg dep g3ee terp agt uro{ runtrleJ pagrosg?,, {gpecelder eg Isntu tunorue
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61 pue S ueo^\reqJoJ senupuoJ rsad rad yot ol o/oZ aler ssol euoq pettJalaJrt ar{J Jo '9-j7 anfug uI rrlr\oqs ere-senssF I?JnJoc Pue relnJeqBJl rlJoq-auoq JDorodoelso pue Itrurou ueeataq saJuarajgrq 'euoq IEJBJocu?ql aler raq8rq gJntu s tE tsol osp sr euoq JEI -rcaqsr q8noqrp 'asnedoueru eqr reUE ueruo^4.ur setereleJ 'auoq -JE euoq Jo spuDl qroq Jo
ssoT IEJD.rocJo retp uetp retearS qJnu sr ueruo^r ur euoq JEInJeqeJlJo ssol psned -oueuerd 'a8e;o sreed 6g se ,(pea se saxestpoq q sufaq ssol turgeJllq elBI eseerueaa.{erupue sneareld ,{lenrue.ta euoq JeInregEr1'aJIIq elBI eseerueaa.ferupue anssq auoq JEInregEr1'aJIIq elBI eseerueaa.{erupue sneareld of se ,(pea se saxestpoq q sufaq ssol uoq JeInregEr1'aJIIq elBI eseerueaa.{erupue sneareld of se of s
susrueqJau petJerrp-auourroq eql ur se8urqc eqJ yo tlnsoJ sr sserueuog ssoT 'sJepue8 roJ eruBs aqt er? H. Moore FA et al: Early enteral feeding compared with parenteral reduces postoperative septic complications, Ann Surg 216:172, 1992. Most often incriminated are chili, cayenne, and black peppers (Milke et al., 2006). studyofsoy food case-control
Dai O et al: Population-based Br J Cancer85:372, intakeandbreastcancerrisk in Shanghar, 2 0 01. Repon of the Committee of the Human Mitochondrial Genome, 2002, www.mitomap, report, html, accessed May 1,2006. Phenytoin (Dilantin) may cause severe gingivitis. Adverse effects include weight gain and edema, and these effects are
more common in patients who receive TZDs along with insulin. Restaurants and health care facilities are obligated to use IIACCP procedures their food handling practices. However, it is often accompanied by an eating disorder or psychological problem (see Chapter 22). In the elderly or in children unintentional weight loss can be especially
detrimental and should be assessed and treated early to prevent malnutrition and other undesirable consequences. genes responsible for these enzymes can have numerous Currently the focus in laboratoriesthroughout the world variations, which means that the resulting enzyme funcis on (1) cataloging the number of genes responsible for these enzymes can have numerous Currently the focus in laboratoriesthroughout the world variations, which means that the resulting enzyme funcis on (1) cataloging the number of genes responsible for these enzymes can have numerous Currently the focus in laboratoriesthroughout the world variations, which means that the resulting enzyme funcis on (1) cataloging the number of genes responsible for these enzymes can have numerous Currently the focus in laboratoriesthroughout the world variations, which means that the resulting enzyme funcis on (1) cataloging the number of genes responsible for these enzymes can have numerous Currently the focus in laboratoriesthroughout the world variations.
also. Fermentedalcoholicbeverages Goal: Preventpainand irritation Avoid: . In addition to traditional nutrient requirements, the public often hears references functional benefits. The role of the health care practitioner is one of coach who helps clients
assessthe need for supplements and helps them to become more knowledgeable about their options (seeBox 18-1). Becausethey are not absorbed in the proximal intestine, fructans have been used as a sugar replacement for diabetic patients.
chemotherapy, enteral feeding Increased concernsabout diet, possible decreased intake of food in general or selected foods Decreased intake, malabsorption of nutrients, weight loss, micronutrient deficiencies Esophagealstricture or tumor Hiatal
hernia Cancer of the oral cavity, esophagrrs, or stomach Dyspepsia Upper abdominal discomfort, bloating, especially after meals Duodenal ulcer Pain severalhours after meals; may be relieved by eating Vague epigastric discomfort associated with eating Early: satiety, bloating, nausea; weak, lightheaded, sweaty; later: symptoms such as reactive
hypoglycemia and possibly cramping, diarrhea Gastric ulcer Dumping syndrome after gastrectomy, pyloroplasty, fundoplication, Roux-en-Y gasffic by-passprocedure 656 PART5 I MedicalNutritionTherapy, Upperteeth muscle (upper esophageal sphincter) Thoracicpart of esophagus with negative intrathoracic pressure Aorticarch Left bronchus
Diaphragm FIGURE 26-l Normal esophagus. Qvlodif.ed from PriceSA, Wihon LM: Pathophysiology: clinical concepts of disease processes, ed 6, St Louis, 200j, M^4). fusociated vomiting with expulsion of feedings leads to inadequate nutritional intake. Medical Conditions That Deplete Calcium and Promote Risk of Osteoporosis Hyperthyroidism Diabetes
Chronic renal failure Scury'. However, the need to conserve sodium sometimes leads to a sacrifice of the homeostatic control of water for the sake of volume, The minimum urinary volume capable of eliminating a relatively fixed 600 mOsm of solute is 500 ml, assuming that the kidney is capable of maximum concentration. Consumption of fruits,
vegetables, and selenium appears to have a modest role in the prevention of GI cancers, whereas alcohol consumption and overweight increase the risk (van den Brandt and Goldbohm, 2006). In most diets the two effects generally offset each other; but at extremes of intake, either very high or very low, one metabolic action will dominate and affect
BMC and BMD (Sebastian, 2005). Large meals and desserts that are high in fat or caloric density stimulate significant amounts of gastric secretions and slow gastric secretions and leving in what was then called the Belgian Congo (Zhu et al., 1998). Porthouse et al.
Randomised controlled trial of calciumand zupplemenation with cholecal ciferol (viamin D3) for prevention and Cancer: Diet, nutrition and canc
diabetes(Gannon et al., 2001; Nuttall et al., 1984) and well-controlled t)?e I diabetes (Peters and Davidson, 1993), ingested protein did not increase plasma glucose concentrations. Li Q, RenJ: Cardiacoverexpression of metallothionein attenuateschronic alcoholintake-inducedcardiomyocyte contractiledysfunction, Cardioaasc Tinicol6:173,2006. Bickel
demonstrates that dietary phenylalanine restrictions lower the blood concentration of phenylalanine. Dietary supplement use by clients provides an excellent platform for teaching consumers analytic skills that will serve them well in their pursuit of increased selfmanagement of their health. CHD expressed as myocardial infarction (MI) or ischemiain
one or lnore of the coronary arteries resulting in necrosis and tissue damage is the main form of heart diseases responsible for these deaths. Mortaliry from all heart diseases responsible for these deaths. Mortaliry from all heart diseases responsible for these deaths. The practical application is
that manipulating the PUFA levelswill have different effects on HDL levels, depending on which variant an individual has. Like adults diagnosed with cancer and its treatment (Ringwald-Smith et a1., 2006). The incidence of malnutrition ranges
from 67" to 50%"in the pediatric population, depending on the type, stage, and location of the cancer. WeesrrEs USeFUL AmericanDieteticAssociation http://adaevidencelibrary.com for Disease Centers Control www. Modified from Mobley C: Frequent dieary intake and oral health in children 3 to 10 yearsof 4e, Building Bhcks25(l):17-20,2001'* Gum
is not recommended for children under the age of 6. Excess vitamin E can inhibit vitamin K activity and precipitate signs of deficiency, mutans in saliva. treatment of that disease anemiapresent in chronicrenal disease. "In what ways does not being able to follow your diet concern you?" o "What do you think will happen if you don't make a change?" to
Change Intention . ......... Standardorder forms are often useful(Table 20-5). Borra, RD, and Paul R. for Htpertension 883 CHAPTER 33 I MedicalilutritionTherapy Hyman DJ, Pavlik VN: Characteristicsof patienrs with uncontrolled hypenension in the United States, N EnglJ Med 145:479,2001. Fat is isotonic and does not contribute to osmolarity. Are there
any food-drug interactions that are a concern for Rick? IGF-1 production drives the anabolic effect without excessivegeneration of net acid resulting from the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of net acid resulting from the catabolism of the amino acids; the difference between the anabolic effect without excessivegeneration of net acid resulting from the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the anabolic effect and the catabolism of the amino acids; the difference between the amino acids; the amino acids aci
for those who are overweight, cholesterol intake limited to less than 300 mg/day, and limited total fat (see Chapter 32). In patients with glucose intolerance, limiting carbohydrates and maintaining a regrrlar moderate exerciseregimen are appropriate. Assessment Body Languageand CommunicationSkills ctive listening forms the basis for effective
nutrition fi /-\counseling. By the process of phagocytosis, these alveolar macrophages engulf inhaled inert materials and microorganisms and digest them. Resistance exercise consists of activities that use muscular strength to move a weight or work against a resistive load. Prebiotics are nondigestible food substances that use muscular strength to move a weight or work against a resistive load. Prebiotics are nondigestible food substances that use muscular strength to move a weight or work against a resistive load.
growth or activity of beneficial bacterial species already resident in the colon Qtrobiotics) and are beneficial to the host. Her vitamin D intake? . Wood LG et al: Circulating markersto assess nutritional therapy in cysticfibrosis, Clin Chin Acta 353:13,2005. The impact of fluoride on caries prevention continues with water fluoridation, fluoridated
toothpastes, oral rinses, and dentifrices, as well as beveragesmade with fluoridated water. Why may an immune-enhancing enteral formula be beneficial for Thomas? The low, middle, and high mileVday values apply to relatively heavyweight (120-kg), midweight (214-kg)individuals, respectively. PhilippaertsR-N[et al: Doubly
labeledwater validation of three physicalactivity questionnaires, Int J Sports Med 20:284,1999. The strong correlation between reproductive function and bone mass and density appears to be affected by smoking through a decreasein estrogens. Alcohol, especially excessive consumption (more than two drinks a day) for an extended period of time,
resuls in bone loss. Cognitive restructuring teaches patients to identis, challenge, and correct the negative thoughs that frequendy *dermine their efforts for weight management (see Chapter 19). Reaching this point will take a concerted effort on many fronts. The formulas are lactose free, contain I kcaVml, and are used as over-the-counter oral
supplements and tube-feeding formulas. This phenomenon may be attributable to sluggish digestion and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions, gastrointestinal mucosal atrophy, and gastric emptying as a result of decreased production of digestive secretions.
agriculture as environmentally sustainable agriculture, it is' But there is no conclusive evidence that organically grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritious or concentrated in nutrienre than conventionally grown foods are more nutritions.
sorted by the combined amount of lurein and zeuanthin. Sources of omega-3 fatty acids from selected marine sources are listed in Table 3-6. Shiboski and colleagues (2001) reported a high prevalence feet (30% to 33%) among fuian and Latino/flispanic communities compared to their white counterparts. Healthy People 2010: National health
promotion and disease preaentizn prigress reairus onfocasareas, Washinrton, DC, 2004a, U.S. Department of Health and Human Services, hnp://www.cdc. The presence of excessive mucus lining the small intestinal tract may interfere with nutrient absorption by the microvilli. uesueH-tle[J] ragSg to etenbape dlereua8 ara, r sla^al C urruelrl fxorp, tg-57
turues esnBreq CII/Vfl uo tJeJSe ou ro eplq peg e Eq uce(qns dlrapya;o uueuralddns C uru -elr.l'pue18ug urarpJou pue'spurlrerpeN eqt'rr,reurpuec5. (5002 ur suoneyndod Sururnsuoc-umrJleJ qSlr{Jo serpnts uI "p te rmoprur-r8urarg) puBIecI ur uele 'ursqoqelaur unrcl?J IIEra^o pue euoq Jo eJuBuelureu eql roy etenbepe aq deu ,{tp7srrun 008 Jo
e>leturumrJlrc e 'lerurou sr snt?ls C u1u -ern fxorp, {q-Sz rutues erp uorltyseJntJ?{ ut suoqJnpeJ ro CIIVS pasBaJJurol setnqrruoc 'ruuclec ;o ruerualddns E tnowl 4. Mayerhauser CM: Sun'ival of enterohemorrhagic Escherichiacoli Ol57 :H7 in retail mustard, J Food Protert 64.J83, 2001. Abdominal pain or discomfort is characteristic ofboth gastric and
duodenal ulcers, although anorexia, weight loss, nauseaand vomiting, and heartburn may occur slighdy more often in persons with gastric ulcers. Adequate exercise, fluids, and easily chewed dietary fiber enhancegastrointestinalmotility (seeChapter 26). (a10 rb) (130 tb) (130 tb) (130 rb) (230 rb) (230 rb) (230 rb) (230 rb) (230 rb) (230 rb) (240 rb) (24
527 286 358 501 609 325 406 568 690 364 455 637 774 401 501 702 852 439 549 768 933 477 596 835 1014 525 62r 716 812 9r0 1001 r097 tt93 368 236 368 11 I 263 236 34r +20 315 420 525 630 840 158 434 279 +34 155 310 279 403 496 621 745 993 133 501 322 501 179 358 322 465 573 +30 573 716 859 1146 215 568 365 568 203 406
365 528 649 487 649 8r2 97+ 1299 243 637 410 637 228 455 410 592 728 546 728 910 1092 1457 273 702 451 702 751 501 451 652 802 602 802 1003 t203 16M 30r 768 494 768 274 549 494 713 878 658 878 1097 1317 r 75 6 329 775 95+ 716 95+ tt93 r431 1908 358 289 3+r 394 446 501 552 603 656 368 +3+ 501 568 637 702 768 835 551 652
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rb) (170rb) (1eorb) 812 893 933 1 0 15 t096 Lt36 t217 r299 t46l 730 568 1 0 15 406 406 487 649 568 568 910 1001 r047 I 138 t229 t274 1366 t457 r639 819 617 1ll8 455 455 5+6 728 637 637 r003 r 103 ll53 1253 1354 1404 r504 r604 1805 902 707 t253 501 501 602 802 702 702 (230rb) 1097 1207 1262 1372 1481 r536 1646 r756 1975 988 768
r372 5+9 5+9 658 878 768 768 (210 rb) (250 rb) I 193 t3t2 1372 t49l 1610 1670 1789 1908 2l+7 6 mph, 7 min/mile 9 mph, 6.5 min/mile 9 mph, 6.5 min/mile 10.9mph, 5.5 min/mile 20.9mph, 5.5 min/mile 8 mph, 7.5 min/mile 8 mph, 7.5 min/mile 9 mph, 6.5 min/mile 9 mph, 6.5 min/mile 9 mph, 6.5 min/mile 9 mph, 6.5 min/mile 9 mph, 8.5 min/mile 9 mph, 6.5 
 Vigorous/race General 2.5 mph, slow 525 578 604 656 709 735 788 840 945 473 368 656 263 263 315 420 368 368 rtt 558 +96 +34 +34 716 788 82 +895 967 1001 t07 + tt +6 t289 644 501 895 158 158 430 573 501 501 4-4.9 mph, moderate 5-7.9 mph, brisk 420 496 573 6+9 728 802 878 95 + 473 558 644 730 819 902 988 r07 + General General
Casual Competitive General General 50 watts, light 39 + 420 368 525 263 473 184 465 496 43 + 621 310 558 217 537 573 501 716 158 644 251 609 649 568 812 406 730 28 + 681 728 637 910 455 819 319 752 802 707. fu the disease progresses, changes in carbohydrate intake may be necessary. Lactose intolerance may become evident, and pancreatic
endocrine involvement may require carbohydrate adjustrnents (see Chapters 27 md 30). Hester DD: Neurologic impairment. In GottschlichM&[ et al, corecurrirulum, ed 2, Silver editors: Nutrition support dietetics Spring, Md, 1993, American Society for Parenteraland Enteral Nurition, ft om hnp:// adaevidencelibrary.com/topic. Lunc CnncER Lung
canceralmostalwaysis the result of persistenttobacco smoking for many years. Administeringoral medications for Parenteral Nutrition, ASPEN: Safe practices another means of supplements and Practice Guidelines for Parenteral Nutrition, ASPEN: Safe practices
for parenteral nutrition formulations, /PEN I Parmtn Enteral Nat 22(2):49, 1998. Libby R Theroux P: Pathophysiologyofcoronary artery disease, I I I:3481,2005. The National High Blood PressureEducation Program preventionpro(NHBPEP) is one of the most successful grams in the twentieth century (Moser, 2002). TZDs also have certain lipid
benefits. About 69% of first MI patients, 77% of first stroke, and, 74"/" who have heart failure (FIF) have blood pressureshigher than 140/90 mm Hg (Thom, 2006). A number of the diseases discussed earlier lead to renal failure in some patients, whereas other patients have a benign course without loss of renal function. A hereditary disorder of the
interstitium, medullary Estic disease, also presens this picture. Life was too complicated, and the dietary changes were more than she could handle. This balance between insulin adjustrnents in addition to adequate carbohydrate
intake during exercise for people with diabetes. Etiology Osteoporosis is a complex heterogeneous disorder of unknown etiology, but many risk factors contribute to this condition over a lifetime. Therapy Nutrition Medical In persons with atrophic gastritis vitamin B12status should be evaluated because a lack of intrinsic factor and acid results in
malabsorption of this vitamin (seethe discussion on vitamin status assessmentin Chapters 3, 15, and 31). Manifestations of TargetOrganDisease from Hypertension Organ System Manifestations Organ System Manifestations of TargetOrganDisease from Hypertension Organ System Manifestations Organ System Manifestation Organ System Organ Organ System Organ Organ Organ Organ 
failure flansient ischemic attack or stroke Absenceof one or more pulsesin extremities (exceptfor dorsalispedis) with or without intermirtent claudication; aneurysm Serum creatinine > 130 pmol/L (1.5 mgldl), proteinuria (1 + or greater); microalbuminuria Hemorrhages or exudates, with or without papilledema Cerebrovascular Peripheral Renal
 Retinopathy From the Joint National Committee on Prevention, Detection, Evaluation, and Tieatment of High Blood Pressure: Fifth repon[NC'\,Arch 153:149,1993. Van Den BergheG et al: Intensiveinsulin therapyin critically ill patients, N Fngl Med 345:1359,2001. The slaughter can be done by anyone-no special person is designated for this function
temic lupus erythematosus, poral arteritis, polyarteritis nodosa, systemics clerosis, and Sjogren's qmdrome. Genomic imprinting is an epigenetic phenomenon that results when the genetic change is the same but different phenotypes result, depending on whether an allele (or chromosome region) was inherited from the mother or the father. The diet is
high in protein and fat since it is based on meat, fish, sea mammals, and game as staple foods. Schattner M, ShikeM: Nutrition support of the patients that counter the effects of prescription and OTC medications should not be combined, such as taking a blood
pressure-lowering medication along with a botanical that can raise blood pressure. Wholefood by mouth NaSOjejUnal Cervicalpharyngostomy or esophagostomy or esophagostomy or esophagostomy FIGURE 20-2 Diagram of enteraltube placement. Hart N et al: Nutritional status is an important predictor of diaphragm strength in young patients with cystic
fibrosis, AmJ Clin Nutr801201, 20M. What is going on? Supported by DLW studies, prediction equations have been developed to estimate energy requirements for people according to their life-stage group. Contact either the WIC or Food Stamp Program in your area. Introduce yourselfas a nutrition student. Egan M: Public health nutrition: a historical
perspective, J Am Diet Assoc94:298, 1994. Completely HD..." posted another. Are we beginning to see an HD telly class war - with the Full HD crowd smugly grinning at the poor old HD Ready lot? It's certainly prompted a bit of a debate. Because the function of the gastrointestinal tract is compromised, TPN is often used. These non-AIDS
definings).rnptoms mayincludefeveqsweats,skinproblems,or fatigue. A decline in nutrient statusor body compositionmay alsooccur. Institutions frequently usestandardized compounding should be available when warranted (Kumpf et al.
2005). Sufficient intrinsic factor, a protein that helps the body absorb vitamin B12, is also needed. NutritionCare Management ECC includes diet and oral hygieneeducation for parents, guardians, and caregivers (Albert et al., 2002). Messages should be targeted to counter the health frequenry and content of the day time bottles. Bottle contens should be
limited to water, formula, or milk. A food that provides 20o/oor more of the DV is high in that nutrient. These are a few simple ideas to keep in mind when serving modified-consistenryfoods. Oral diseasesextend beyond dental caries. The effect of cancer treatment on the individual's quality of life should be addressed throughout the
treatment period and continue until the individual is able to successfully resume activities of daily living. After assessingfluid balance and requirements, energy is the next requirement to determine. 2002. Hubbard, RD,LD Clinical Dietitian Medical Nutrition Department OklahomaAilergy andfuthma Clinic OklahomaCity, Oklahoma Rachell(.Johnson
PhU,RD Dean and Professorof Nutrition Collegeof Agriculture and Life Sciences University of Vermont Burlington, Vermont Veena Juneja, MSc,RD SeniorRenalDietitian Nutrition Services St. Joseph's Healthcare Hamilton, Ontario, Canada Earbara J. Recendy small capsules can be swallowed with an attached line; or wireless type capsules can be used
to view segments of the GI tract for abnormalities or bleeding, check pH, and measure the time it takes to pass through different segments of the GI ract. fatry acids, J Clin Gastroenterol Wu GH et al: Perioperative and those who
are ill do not fasr. Use of openended questions encourages the client to discuss dietary change progress and difficulties. Shea B et al: Calcium supplementation on bone loss in postmenopausal women, CochraneDaubase SystRn, cD004526.2004. Sucralfate, acid suppressives, and, as necessary antibiotics are used for prophylaxis and therapy (Stollman
and Metz, 2005; Kallet and Quinn, 2005). 5aday.com, accessed May 30,2006a. J ozt Carrot juice, 7+ cup Sweet potato with peel, baked, l medium Pumpkin, canned, % cup Spinach, cooked from frozen, t/2.cttp Kale, cooked from frozen, t/2.cttp Kale, cooked from frozen, t/2.cttp Kale, cooked from frozen, 7z cup Mixed vegetables, canned, % cup
Tirrnip greens, cooked from frozen, '/2 CrJp Instant cooked cereals, fortified, prepared, 1 packet Various ready-to-eat cereals, with added vitamin A, = l oz Carrot. The treatment is based on the belief that the body's ability to destroy the tumor is enhanced by large dosesof vitamins, antioxidants, and other substances. Miscellaneous substances that may
be used by patients with cancer include enzyrnesthat are purported to treat cancer by dissolving the coating of cancer cells to allow the immune system to destroy the cancer. RecuLATroNoF Booy EIGHT Regulatory systems such as neurochemicals, body-fat stores, protein mass, hormones, and postingestion factors all play a role in regulating intake
and weight. The thiazolidenedione (IZD) classof drugs act as PPARgamma agonists and mimic this effect, thereby serving as useful drugs for insulin resistance and qpe 2 diabetes. Consume an overall healthy diet. Therefore strict adherenceto protocols and monitoring for signs ofinfection such as chills, fever, tachycardia, sudden hyperglycemia, or
elevated white blood cell count are necessaryro Drevent infection. Becauseincreasesin intragastric pressure force acidic stomach contents up into the esophagus, persons with hiatal hernia mxy experience difficulty when lying down or bending over and epigastric (the upper middle region of the abdomen) discomfort tfter large, energy-densemeals.
The wireless capsulestransmit signals that send photographs and other information that are being used for diagnostic and research purposes. In most casesof hypertension, peripheral resistance increases. This resistance forces the left venricle of the heart to increase its effort in pumping blood through the system. Generally children in low-income,
undereducated groups are at high risk for ECC and other dental diseases. Hi s t o r i e s The information collected about individuals or populations is used as part of the nutrition stanrsassessment. \4tamin E in supplemens is usually sold as cr-tocopheryl acetate, a form of ct-tocopheryl acetate
 weight loss halts completely. In a national multicenter trial the Diabetes Control and Complications Tiial showed that blood glucosecontrol wasmore important than protein restriction in delayingthe onsetof renal failure in individuals who havediabetes (see Chapter 30). It is easily absorbed and is less likely to cause constipation and gas. Within this
region are sequences called response elements that serve as binding sites for regulatory proteins such as transcription factors and their bound ligands. What makes one patient remain with preESRD for many months to years while others progress rapidly to ESRD and renal failure and dialysis is unclear. Chew sugarlessgum for 15 to 20 min after
meals and snacls. Zhng C et al: Interactionsberweenthe -514C-+T polymorphismof the hepaticlipasegeneand lifesrylefactorsin relation to HDL concentrationsamongU.S. diabeticmen, Am J Clin Nutr 8I:1429,2005. Metheny NA, Meert KL: Monitoring tube feeding placement, l,trutr Clin Praa 19:487,2004. The long-term relationship between nutrition
suppoft, growth, and survival is not known; however, improved nuffition satus on a long-term basis contribute to dental erosion, a loss of
minerals from tooth surfaces by a chemical process in the presence of acid ftVongkhantee et al., 2006). Therefore energy intake appears to a factor in determining the effects of a high-monounsaturated fat diet. To influence the expression of the genes under its control, this transcription factor must first complex with a
second transcription factor, the retinoic X receptor (RXR). Somepeoerences, and living amangements ple participatein pulmonaryrehabilitation factor, the retinoic X receptor (RXR). Somepeoerences, and living amangements ple participatein pulmonaryrehabilitation factor, the retinoic X receptor (RXR). Somepeoerences, and living amangements ple participatein pulmonaryrehabilitation factor, the retinoic X receptor (RXR). Somepeoerences, and living amangements ple participatein pulmonaryrehabilitation factor, the retinoic X receptor (RXR).
132:1872,2002. USeFULWeesrrEs N utriti on D iag n osis: Overweight/obesityrelatedto excessiveenergy intake as evidencedby weight 70 lbs over desirableweight l. Mental deficits of Korsakoffs psychosis do not improve. following section takes a brief look at some of the key diet-related genes and their known variants and how these variants affect
the person's response to diet. Individuals should be encouraged to consume more frequent, small feedings, with particular emphasison morning feedings, and easy-to-eat foods that require less preparation and are easier to consume morning feedings, and easy-to-eat foods that require less preparation and are easier to consume.
high-carbohydrate diet. A major concern in persons with long-standing and more significant esophagers become abnormal, even premalignant. BiskobingDM: COPD and osteoporosis, Ciesr 12L509, 2002. Modulators Receptor Estrogen Selective
SER, NIsare able to stimulate estrogenreceptors (ER) in bone tissue and yet havevery little effect on the estrogen receptors freproductive tissues (i.e., breast or uterus). Because of its larger size, amylopectin is more abundant in the food supply and makes up a greater fraction of the starch in grains and starchy tubers. Only garnish with foods
appropriate for the diet consistency. definition, 166 Y-linked inheritance disorders, 374 You Can! Stepsto Heahbier Aging, 292b yo-yo effect, definition, 533 Z zalcitabine (Hivid), nutritional complications, 1002t zinc, I20-I24 a b s o r p t i o n, l 8, I 2 l - 1
2 2 deficiency, 123-12+, 124b, 124f, 137t in anorexia nersosa, 575-576 dietary reference intakes, 123, 123t, 137t excretion, 122 food sources, 123, 123t, 137t functions, 122-123, 137t functions, 123-124b, 124b, 124f, 137t functions, 122-123, 137t
205 in lactation, 188 in older adulthood, 300 in pregnanry, 176 srorage, l?2::\[1], rT;i',-,, PrendergastFlil[et al: Management failure: an old diseasewith a new face, Emng MedAust 17:143, 2005. FLUIDBALANCE: Patientfluid requirements and intakes hould be assessed, includely, waterflush, and water available from tube feeding (formulais
approximately 800/ofree water). Seeindividual hormones and topics adrenocorticotropic definition, 1021 secretion, in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic, nutritional support in metabolic stress, 1022 affecting glucose levels, ,148b anabolic stress, ,148b 
nutritional support in metabolic stress and, 1032 gut, in bodyweightregulation, 536-537r human growth, ergogenicaid, 605t, 608-609 in blood sugarcontrol, 46b increasing appetite, 147b neuropeptide, 7-8 hormone(s) (Continued) replacement therapy, affecting glucose levels, 448b stress. For example, the energy value of one medium-size (50-g) egg
calculated in terms of weight is derived from protein (13%), fat (12%), and carbohydrate (1%) as follows: Protein: 13 % x 50g: 6.5t x 4kcaUg: 2kcal Energy values of foods based on chemical analyses may be obtained from the U.S. Department of
Agriculture ruSDA) Nutrient Data Laboratory website: . Alberts DS et al, and the PhoenixColon CancerPrevention Physician's Network: Lack of effectof a high-fiber cereal supplementon the recurrenceofcolorectal adenomas, N Engl J Med 342:1156,2000. It is the glycogen store in the human liver (about 90 g) that is involved in the hormonal control of
constipation. Individuals benefit from the use of small, more frequent feedings and, if indicated, avoidance of simple carbohydrates. Genetic technology also gives humans the power to change their genetic information through gene therapy. "Samplesobtainedfor blood coagulationtess are diluted with solutions containing so diumcitrate (a
calciumchelator). Because of the dilutional effect of the concentrations of analltes. If CPN is to be stopped, it is prudent to taper the rate of infusion in an unstable patients this
is not necessary. DietaryPrecautions WithNeutropenia IndividualsreceivingHSCT become immunocompromised and require supportivetherapy, including medications and g-ut atrophy, Curr Opin Clin Nutr Metabol Care 5:679, 2002. For
example, take the sum of the A PAL values for activities of daily living such as walking for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.21), and then performing moderate to vigorous activities such as walking for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.21), and then performing moderate to vigorous activities such as walking for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.21), and then performing moderate to vigorous activities such as walking for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.21), and then performing moderate to vigorous activities such as walking for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for t hour at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal hours at 4 mph (0.20) and ice skating for the formal
BEE adjustedfor the 10% TEF (1.1) for the final calculation (0.7 + 1.1 : 1.8). To calculate the EER for an adult woman, use the EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (Institute EER equation for rvomen 19 years and older (BMI 18.5-25 kg/m2) (seeBox 2-l) (se
information about antacid use becausethis is a major source of calcium supplementation. Acute HIV infection occurs 2 to 4 weeks after infection and is a period of rapid viral replication. Wasting syndrome secondaryto HIV Asymptomatic, not (A) and not (C) AIDSIndicator B1 82 B3 C1 C2 C3 From Centers
for DiseaseControl and Prevention: 1993 Revisedclassificationsystemfor HfV infection and expandedsuryeillancecasedefinition for AfDS among adolescentsand,adrlts, MMWR 4l:17, 1992, from www.cdc.govlmmwr/previeilmmwrhtrny00018871.htm. SeeGestationaldiabetesmellitus geneexpresslon 376-177 nutritionalgenomicinfluences, vitamin and in Ain in
71, 72 f utamln IJ rn, /), /ot generalizedanxietydisorder, nutrition, I 112t gene(s) definition, 364 food allergies and, 76l genetic engineering, 374 definition, 364 food allergies and, 76l genetic engineering, 374 definition, 364 food allergies and, 76l genetic engineering, 374 definition, 364 food allergies and, 76l genetic engineering, 374 definition, 364 food allergies and, 76l genetic engineering, 374 definition, 364 food allergies and, 76l genetic engineering, 374 definition, 364 food allergies and, 76l genetic engineering, 374 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 374 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 76l genetic engineering, 375 definition, 364 food allergies and, 375 definition, 37
geneucs 1 basics, 370-37 definition, 364 fundamentals, 368-375 genomics and, 369-370 nutrition therapy and, 375-379 genetic arisin formula and a genome, 367 definition, 364 fundamentals, 368-375 genomics and, 369-370 nutrition therapy and, 375-379 genetic and, 369-170 nutritional, 364 genome, 367 definition, 364 fundamentals, 368-375 genomics and, 369-370 nutrition therapy and, 375-379 genetic and, 369-170 nutritional, 364 genome, 367 definition, 364 fundamentals, 368-375 genomics and, 369-370 nutrition therapy and, 375-379 genetic and, 369-170 nutritional, 364 genome, 367 definition, 364 fundamentals, 368-375 genomics and, 369-370 nutrition therapy and, 375-379 genetic and, 37
382 definition, 365 geneticfundamentals, 368-375 in cancerprevention, 375 in cardiovascular influences 376-377 on geneexpression, 375-376 on metabolic genowe, 372 definition, 365 nutrition assessmentand, 368 geophagia definition, 160 in pregnancy, 181 GERD (gastroesophageal reflux disease),
definition, 654 general genera
hypertension, 183 definition, 160 GH (growth hormone) definition, 1021 nutritional support in metabolic stress and, 1032 ghrelin functions, 8b in body weight regulation, 537t GI. Undernutrition may lead to underfunction of the pituitary thyroid, gonads, and adrenals. p-byd.rotry-B-metbylbutyrate (IIMB) is metabolized from leucine and when
supplementedmay attenuatemuscle (protein) catabolismassociatedwith cancer cachexia. The size and shape of these organisms range from spirals to coils to rods, depending on the culture media of the stomach. Fecal elastase (protein-digesting enzyme secreted by the pancreas and involved in hydrolysis of peptide bonds), fecal fag or nitrogen
balance studies may help to evaluate the adequacy of enzlqe supplementation. PerBelcsr reqr xuLreqd ut uotrualar elerepojy'{o :&utnq1olaqlto arlett r0 auouqtqxa [a147, {cuetsrsuoceuo WL\r q8noc qrr,tt sPjojleco arlrjo le^el erijo] uoE?Jlaued,
{e,trrrellcuelsrsuoo euo glL,rruoperrdsy . What would be the goalsof her treatrnent? The ADI includes a 100-foldsafety factor and greatly exceeds average consumptionlevels. For example, aspartameactual daily intake in personswith diabetes 2 to 4 mg/kg of body weight daily, well below the ADI of 50 mg/kg daily (Butchko and Stargel, 2001). If you do
not eat vitamin D-rich foods often, you may \{/ant to consider taking a vitamin D supplement. The ADA Position Paper, Food and Water Safety, proides further evidence for these linkages and notes the role of dietetics professionals (ADA, 2003bt Contamination Adoption of the FIAACP regrrlations, food quality assurance programs, handling of fresh
 For cold foods: prepare per recipe, freeze, set on plate, and serve(will thaw quickly). JankowskaE et al: Autonomic imbalanceand immune activation in chronic heart failure-pathophysiologicallinks, Cardiooasc Res70:434,2006. McCrory P et al: Energy balance, food intake and obesity. In Hills AP, WahlqvistML, editors: Exercise and obesity, London,
1994, Smith-Gordon. Characteristics of r-ulnerable plaque are lesions with a thin fibrous cap, few smooth musclecells, many macrophages (inflammatorycells), and a largelipid core (Figure 32-1) (Ruddet al., 2005). This type of interrupted transition should be monitored closely for adequate oral intake. Feeding Strategies Interdisciplinary teaminvolvement in the contract of the con
 direct careand education is paramount(Figure 35-5). A modified oral diet usually is preferred. Butler SO et al: Relationshipbetweenhlperglycemiaand infection in critically ill patients, Pbannacotherapy 25:963,2005. (From IgnataaiciusD, WorkmanM: Medical-surgical nursing: critical thinking for collaborarive care, ed 5, Philadelphia, 2006, Saanders)
Surgery The surgical resection or removal of any part of the alimentary tract, as well as the malignant diseaseprocess itself, can impair digestion and absorption significantly (Thomas, CHAPTER37 I MedicalNutrition Therapyfor Gancer 977 2006). 362 PART2 l Nutrition in the Life Gycle Federationof AmericanSocieties for ExperimentalBiology, Life
SciencesResearchOffice: Third report on nurrition monitoring in the United States, Prepared for Nutrition Monitoring and RelatedResearch, Washington, DC, 1995, IJ.S. GovernmentPrinting Office. What are the principles of medical nutrition therapy for Rick? Poorjudgment. "What could you do to changeyour eatinghabits?"
Parenteral administration of glucose, lipids, and essential unonessential aminoacids. Intrinsic ARF can result from toxic drug exposure, a local allergic exposure, a local exposure, a local exposure, a local exposure, a local exposure, a
most devestating. Typically patiens developthis illnessasa complication for sustained shockcaused by an overwhelming infection, severetrauma, surgical accident, or cardiogenic shock. Vitamin and mineral supplements that meet agerelated requirements are usually recommended with weight-reduction programs that provide less than 1200 kcal for
women or 1800 kcal for men. Pronsl18 yt Energyexpenditure 30671 Female 2403t (t9yr) Pregnant Women 14-18 yt Adolescent female EER + Change in TEE + Pregnancyenergy deposition First trimester Third trimester Third trimester 19-50 yr 2368 (16yr) 270B (16n) 2820 (16r') Adult female EER + Change in TEE * Pregnancyenergy deposition First trimester Third trimester Third
,393t (19Vr) Judy (19Vr) Judy (19Vr) First trimester Secondtrimester Third trimester Third trimester 24031(r9 yr) 743t (t9Vr), 743t (t9Vr) ,743t (t9Vr) (19), Lactating Women 14-18 yr Adolescent female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n) 2768 (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo Second6 mo 19-50 yr 26eB (16n') Adult female EER + Milk energy output -Weight loss First 6 mo
FromInstituteofMedicineofTheNationalAcadernies: Dietaryrefereneeinukesfornng,carbobydrcte,fber,fat,fattyacie,chohstnol,yotein,anilarninoacids, Washington, DC,2002/2005, The National AcademiesPress. One of theseinvolvesthe renin-angiotensin mecha. The large variety of HD wallpaper categories at WallpapersCraft lets you find your favorite
 anime, fan art and movie posters easily. Pixabay License/KELLEPICS/Pixabay SetAsWall is a beautifully designed site that happens to be fully optimized for mobile devices. The tubules resorb the vast majority of components that compose the ultrafiltrate. xs tsP^SS(.) rv h n F.i S-s 's" t\ N @ L I'r t 6A X! I E6 cr ir b.r oF|r h.; vl:t: Yo . \ E li U
 health claim based on emerging scientific evidence that, on review of this evidence by the FDA, is approved for use on a food or dietary supplement label, given sufficient evidence exists to make the requested label claim (see Box 12-4 in Chapter 12). CFSAN in the Food and Drug Administration is concerned with regulatory issues such as seafood
HAACR safety offood and color additives, safety offood and color additives, safety offoods developed through biotechnology, food labeling, dietary supplements, food industry compliance, and regulatory programs to address health risks associated with foodborne chemical and biologic contaminants. Card. ioaasc 898 PART 5 i ttedicat Nutrition Therapy Hunt SA et al:ACC/AHA
2005gaidelineupdatefor the diagnosis and management for chronic heart failure in the adult: a report of the AmericanCollegeof Cardiology/AmericanHeart Association and include biguanides (metformin) and TZDs. Both classes require the presence of insulin, exogenous or control of the AmericanCollegeof Cardiology/AmericanHeart Association and include biguanides (metformin) and TZDs. Both classes require the presence of insulin, exogenous or control of the AmericanCollegeof Cardiology/AmericanHeart Association and include biguanides (metformin) and TZDs. Both classes require the presence of insulin, exogenous or control of the AmericanCollegeof Cardiology/AmericanHeart Association and include biguanides (metformin) and TZDs. Both classes require the presence of insulin, exogenous or control of the AmericanCollegeof Cardiology/AmericanHeart Association and include biguanides (metformin) and TZDs. Both classes require the presence of insulin action and include biguanides (metformin) and the presence of the AmericanCollegeof Cardiology/AmericanHeart Association and include biguanides (metformin) and the presence of the AmericanCollegeof Cardiology/AmericanHeart Association and the presence of the AmericanCollegeof Cardiology/AmericanHeart Association and the presence of the AmericanCollegeof Cardiology (metformin) and the AmericanC
endogenous, to be effective. Vt \(^\)p cooked cereal, grain, or starchyvegetable . Escapism r Defensiveness . "My husband will never help me." "I have never been good at sticking with a goal. SampleMeal Plan Breakfast 7+ cup scrambled eggs 7+ cup ready-to-eat breakfast cereal with 25% DV (3.8 mg zinc) % cup sliced peaches Vz crtp low -fat fat-free
milk Lunch I chicken salad sandwich % cup carrot sticks 2 Ttrsp Ranch dressing 1 bag baked chips Snack Yogurt, plain (2.2 mg zinc) Dinner 3 oz grilled beefshank(8.9 mg zinc) Sidesalad I small sweetpotato 7zcup freshpineapple Snack t/z crtpTiall mix (raisins, pecans, cashews, dried cranberries) Page numbers
followed by b indicate boxes and boxed material; f, figures; t, tables. At least once eachweek he works late, and when he getshome, he is too tired to make and eat dinner. Dextroseis glucose, and the brain is highly dependent on a regular, predictable supply. The body has
highly adapted physiologic mechanisms to maintain adequateblood glucoselevels. Autoimmune gastritis (Whittingham and Mackay, 2005). Kathleen Mahan, MS,RD,CDE Clinical Associate Department of Pediatrics Schoool f Medicine and Mackay, 2005.
utri ti o n b y D e si g n Washington Seattle, MA,RD,LDN SylviaEscott-Stump, DieteticPrograms Director Department of Nutritionist Consulting Nutrition
Louis, Missouri 63146 KRAUSE'S FOOD & NUTRITION THERAPY, International Edition, 12e ISBN: 978-0-8089-2378-7 CopynSht (c) 2008, 2004, 20W, 1996, 1992, 1984, 1979, 1972, 1966, 1961, 1957, 1952 by Saunders, a1 imprint of Elsevier Inc. Seaweed, willow leaves, and sour dock are some of the few edible plants consumed. The dialysis fluid
 electrolyte content is similar to that of normal plasma. She will drink milk, but does nor commonly include milk in her N utrition Diag nosis: Food- and nutrition-related knowledge deficit related to sodium content offoods as evidenced by patient requesting assisance with implementing a no-salt addeddiet 1. All low-calorie diets result in a loss of body
dairy come from animals grown without antibiotics or growth hormones and fed 100% organic feed. During the intake interview you learn more about MB's family. Infection induces inflammation from both humoral and systemic immune response, with damage resulting from cytotoxins produced by the organism during the inflammatory response by
the host. M, Tiacey KJ: Immunologic role of the Galloswitsch-Puerta cholinergicanti-inflammatorypathwayand the nicotinic acetylcholinealpha7 receptot Ann NY Acad Sci1062:209, 2005. tSubtract l0 kcavday for men and 7 kcavday for men and 8 kcav
for Health Statistics QICHS): Health, (Inited States 1998, with socioeconomic status health thartbook, Hyattsville, Md, 2001, National Center for Health Statistics. To mold, use a thickener or a shapingor enhancing product. In ject ab less There are two new injectable glucose-lowering medications. Anorexia. Finnerty JP et al.: The effectiveness of
outpatient pulmonary rehabilitation in chronic lung disease:a randomized controlled rtal, ChestI 19:I 705, 2001. National Cancer Instirute: SEER stat fact sheets-cancer of iron deficiency, iron satus must be measured (i.e., serum iron, iron-binding cap
rcity, rnd serum ferritin levels), Disease 9L3 CHAPTER 35 i MedicalNutritionTherapyfor Pulmonary Indications of fat intolerance include an increase in the number of stools, greasystools, or abdominal cramping. Mid-1960s: Semislnthetic formulas restricted in phenylalanine content become commercially available. What would you advise Jared to do
to decreasehis genetic susceptibility to diabetes? Another type of long-term catfieter is a port device that is implanted under the skin where the catheter would normally exit at the end of the subcutaneous tunnel. Beautiful plate presentations and good-tasting foods will help maintain good consumption and ultimately positive nutrition
status. Residentand patient dignity is very important. They are also adequate for pregnant and lactating females. Definitions of 0steopenia andOsteoporosis When BMD falls sufficiently values (I standard deviation[SD] according to WHO standards) osteopenia exiss. or all mucosa (ulcerations, stomatitis, xerostomia) and the
gastrointestinaltract (anorexia, reflux s1'rnptoms, diarrhea) and cancausechanges in body weight. Jerome has an unremarkable medical history. With prevention the goal is to reduce intrferylechanges. He ada n dN e c kC a n c e r s Head, neck, and oral cancers can alter eating ability and nutrition status byvirtue of the surgeries and therapies used to
treat these cancers. About 2 hours after a meal, intestinal absorption is complete, but insulin effects persist, and the blood glucose level falls, sometimes below the normal range. DempsterDW et al: Effectsof daily treatmentwith parathyroid hormone on bonemicroarchitectureand turnover in parients with osteoporosis: a paired biopsystudy, J BoneMiner
Res 16:1846,2001. Several trials have shown improved appetite and increased energ'y intake and body weight in cancer patients treated with megestrol acetate, a progestational agent. Water Fluoridation l- luoride supplementation has been endorsed as a public by the American Dental Association and l- h"alth -""*r" American Dietetic Association
(Palmer and Wolfe, 2005)' The U.S. Surgeon Generalt Report on Oral Health (USDHHS, 2000) also stressesthe value of fluoridation in dental disease prevention and tooth protection. U-100 is the concentration of insulin available in the United States. Moderate amounts of alcohol insested with food have minimum, if any, acute effect on glu-cose and
insulin levels (Howard et al., 2004). MB was born in the United States; but her mother speakslimited English, works in a minimum-wage job, and has recendy been diagnosed with type 2 diabetes. You refer MB to casemanagementservicesto discussenrollment of the family into primary care servicesat your facility and for possible referral into other
communitybasedservices. Shortness of breath Fatigue Flutdretention Peripheral vasoconstriciton peptide B-natriuretic Mentalconfusion Memoryloss Anxiety Insomnia Syncope andheadache Drl cough 'ACE inhibitors ' Angiotemin receptorblockers 'Aldosteroneblockers of breath Fatigue Flutdretention Peripheral vasoconstriciton peptide B-natriuretic Mentalconfusion Memoryloss Anxiety Insomnia Syncope andheadache Drl cough 'ACE inhibitors ' Angiotemin receptorblockers ' Aldosteroneblockers ' Aldosteroneblockers ' Anxiety Insomnia Syncope andheadache Drl cough 'ACE inhibitors ' Angiotemin receptorblockers ' Angiotemin receptorblockers ' Anxiety Insomnia Syncope andheadache Drl cough 'ACE inhibitors ' Angiotemin receptorblockers ' Angiotemin receptorblockers ' Anxiety Insomnia Syncope andheadache Drl cough ' ACE inhibitors ' Angiotemin receptorblockers ' Angiotemin receptorbloc
hehuman infant, Am J Clin Nur 48:951,1988. The DV for iodine is 150 mcg The %DV listed on the Nurition Facts panel of food labels states the percentage of the DV provided in one seMng. chronic obsrructive pulmonary disease, Chest103:-1038, M et al: Nutrition in patients with cystic fibrosis: a Sinaasappel European consensus, J Cyst Fibrosl: 51,2002. C
HAPTER|2Energy37 Metabolic rate in the human body is affected by several variables, including daily TEE, 60% to 70% of which is the BEE. Modest doses of alcoholic bwerages in otherwise healthy persons do not appear to ctuse peptic ulcers. Using all of these techniques will help make the counseling sessions more effective and satis$ringforms.
all parties. What are the differences? Also compareit in kca7kg body weight. 107:466,2007 professionals, J Am DietAssoc JacobsMN, Lewis DF: Steroidhormone receptorsand dietary ligands: a selectedreview, ProcNutr Soc6l:105, 2002. Thus the energy expenditure of adultscan be estimated using MET values (1 MET: I kcal/kg/hour). For example, an adult
who weighs65 kg and is walkingmoderatelyat a paceof 4 mph (which is a MET value of 4.5) for t hour would expend 293 calories(4.5kcal x 65 kg x I:293). Other factors affect the risk of pathologic consequences, including the patient's age at onset of the initial infection, the specific strain and concentration of organism, genetic factors related to the
hosq and the lifestyle and overall health of the patient. Oral supplements can be used when necessary to attain nutrient adequary. Complete the following information and be prepared to discusswith your fellow classmates: e What WIC benefits are available to this family? Energy Because of hypercatabolismand hipermetabolism, energy needs are
elevated in R[, and sufficient energymust be supplied to prevent the use of the body'sown resewes of protein and fat. At age 30 the two brothers are noticeably different in weight and body shape. Jared has a BMI of 36. Production of mucus is stimulated by the action of prosaglandins. Hyperglycemia can also result from exercise. When a person
exercisesat what for him or her is a hish level ofexercise intensity, there is a greater-than-normal iri.r.rr. Finally, such an intake maintains healthier bone tissue, and it may reduce fractures at all skeletal sites Medications A number of medications contribute adversely to osteoporosis, either by interfering *ith calcium absorption or by actively
promoting calcium loss from bone (see Box 24-2). Let me know if you want to talk about it again. In the absence of insulin, glucagon inhibits hepatic glucose exidation and enhances gluconeogenesis. The net result of these activities is rerurn of blood glucoselevels to the normal range. i an H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of these activities is rerurn of blood glucoselevels to the normal range. i an H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the sea activities is rerurn of blood glucoselevels to the normal range. i an H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the sea activities is rerurn of blood glucoselevels to the normal range. i an H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the sea activities is rerurn of blood glucoselevels to the normal range. i and H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the sea activities is rerurn of blood glucoselevels to the normal range. I am H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the sea activities is rerurn of blood glucoselevels to the normal range. I am H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the sea activities is rerurn of blood glucoselevels to the normal range. I am H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the normal range. I am H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the normal range. I am H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the normal range. I am H yc < *v6 ysiu F + o.-! .:6P F nrE e *i: hl= q EE} o |r 356 PART2 is not approximately a second of the normal range. I am H yc < *v6 ysiu F
Nutritionin the Life Gycle () = g *(J (Ed 'i6 6 H H q) .P(IJ i (Jo - |r 6 * (.) v2 fr ;;;=€;,$= E s*,E U Ch J ql d for DietaryPlanning 357 12 | Guidelines CHAPTER 358 PART2! Nutritionin the Life Cycle with a lot of fish and shellfish.fu Chineseadoptuaditional American foods, their diet begins to include more sweets suchascookies,chocolate,,oft-drinLr, and
snacls. What do you suggest about a multivitamin supplement? The combination of smoking and alcohol, common among young women and men, placesthem at increasedrisk for osteoporosis. The causesmay be maumatic, surgical, or medical. Hispanics, Latinos, and Asians have the lowest rates of all forms of C\rD. Augustin LS et al: Dietary glycemic
index and glycemic load, and breast cancer risk: a case-controlstudy, Ann Oncol12:1533, 20 0 1 . Prospective cohort sndy, Br Med J 331:807,2005. Self-efficacy is an important concept; confirming thoughts that "I can actually do this" should be supported by all counselors (seeChapter 19). Among the Genomics379 Nutritional 13 I Assessment
CHAPTER better-characterized genes involved in various aspects of detoxification are the cytochrome P450 isozy.rnes(CYPs), glutathione S-transferases (GSTs), and infections may also occur. FFM can be divided into wa- though it is primarily fat, adipose
tissue is also composed of small amounts of protein and water. Now is the time to take care of pressingissues. In additionto immunosuppressive The first phaseconinstituted. The following concepts are important to consider in facilitating dietary changes: o People make behavioral changes only when they are ready to change. Health care provider and
patient participation in scientific nutrition studies aimed at producing evidence-basedresults is necessary. *Seruingsizesvary between 7: mp and 17+ cup, depending on cerealtype Checkthe product's Nutrition Factslabel. Goals need to be directed toward a visible means of feedback such as body weight or some other meaningful index. He had + + I
pining edemain his arms and legs on admission to the ICU. 660 PART5 | meOicalNutrition Therapy aftempt to reduce the number and frequency of ear infections, tonsillitis, and sinusitis. SchofieldWN: Predicringbasalmetabolicrare, new standards and review of previous work, Hum Nutr Clin Natr }9(suppl l): 5, 1985. Intakesfor VitaminD
 her ileum. Unless a change is made in either nutritional intake or physical activity, weight loss stops at this point. The recommended amount of digestible carbohydrate required in the diet ranges between 450/oand 657" of total calories (Institute of Medicine, Food and Nutrition Board, 2002). Pexins and gums contain sugars and sugar alcohols that
make these molecules even more water soluble than hemicellulose. Feeding difficulties frequendy occur among infants with CLD and BPD. YanL, SpitznagelE: A meta-analysis of soy foodsand risk of breastcancerin women, Int J Cancerl: 281,2004. Miller ER III et al: Rezultsof the Diet, Exerciseand Weight Loss Intervention Tiial @EW-IT), HIptrtension
40z612,2002. Children and adolescents may need a similar protein intake to support optimal skeletal growth (AI."y et al., 2005). She cannot eat solids and conzumes and conzume and 
overburdened patient. "3 in 1" (amino acid, dextrose, lipid) versus "2 in 1" (amino acid, dextrose) plus piggyback lipid infusion, 1041 TM (transtheoretical model) ofchange, 483f, +93 definition, 489 TNF (tumor
necrosis factor), definition, 960 tobacco use. \4tamin K is an essential micronutrient for bone health. For more information on coaching and credentialing for coachesat coachfederation.orgleweb/. Mandel ID, Grotz VL: Dental considerations in
sucraloseuse, J Clin Dentistry13:116,2002. Three or four bolus feedings per day can provide the daily nutritional requirements for most parients. Dietary intake (including intake of fortified foods, energy or sports bars, or beverages). See also Ptenterrl nuuluon questionnaire, 396b treatment outcome md, 97 | tumor growth and,97l nutritional anemias
laboratory data for, 421-424 nutritional genomics, 364-382. It's a matter of magnitude: "mutation" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is typically deleterious, whereas "gene variant" connotes significant difference that is the properties of the connotes significant difference that is the connotes of the connotes significan
nutritional needsof an individual for maintenance, repair, living processes, growth, and development. With a client who is not ready to change it is easy to become defensive and authoritarian. Between the genders, C\rD rates ha,re fallen more in men than wonren. In the coronary arteries atherosclerosis causes angina, MI, and sudden death (Figure 32)
4); in the cerebral arteries it causesstrokes and transient ischemia, and gangrene. In surveysof patients it causesintermittent claudication, limb ischemia, and pepper are commonly but not universally incriminated in causing discomfort. Glucose
exits the liver and enters the systemic circulation. satisfaction When working with clients who are limited in English, always speakdirecty to the client, evenwhen using a translator, andwatch the client for nonverbalresponses during the translation. EER: 354 - 6.9r x
Age 6.r) + PA x (9.36 x Weight [kg] + 726 x Height [m]) EER: 354- (6.9rx 30) + x 65] + 1726 x r.771) r.27x ([9.36 EER: 2551kcal Energy spent during various activities can also be determined for children and teens (see Box 2-1) (Instirute of Medicine, 2002;2005). Exercise also decreases the effects of
counterregulatory hormones; this, in turn, reduces the hepatic glucose output, contributing to improved glucose control. D'Amico CL: Cardiactransplantation:patient selectionin the Nurs 20(5suppl):S4,2005. 'tZ:02 orua,r.3,f,dent1t lenueru puB esrcJaxeqtr,r{ srtrrr{lJeoatsoluroI repqrpueruorodurar Jo tuerut?ert reUB JuroJtno rurat-8uo1 :le ta d
SDIEIoJTN '966I 'lLZt ,srlur{tre proteunaqr Lt lotarunaqy f tg pue pooJ ueEa,r'gcu-qlrreqotcel ,pa>loocun :F te J ueuouaN ' gggT t(;en:qa { pessaJce,,roE.qru.ruertu. _,rr, {t &r tuotl' (1JV.j) lot.rJ.uoquaoraru!s!t!"tquo utltlquuqr/aunuasotryE HIN :sransaupuu suotlsanj :rllleeH Jo setntqsul leuort€N 'S002 {BIl\r pesserrE 'ao8'qru:rcpru',/1Lrr, {
ruo{,sraprosrp relnqrpueruorodurel :cwl :r{Jreesau I?rrsEJoru?r] pu? t i Marcy Fenton, MS, RD Ellyn C. oral intake. The issues surrounding use of pesticides and contaminants in the water supply affecting produce are further concerns (see Focus On: Is it Really Organic, and Is It Healthier?). Couer Imtge: Copyright Dennis Kunkel Microscopy, Inc
Vltamln E (International unlts) ,+0-50 80-150 100-200 200400 Vltamln D (htematonal unlte) ,100 ,0-50 80-1.5 0.3-0.5 0.3-0.5 0.3-0.5 0.3-0.5 essessment in cystic 6brosis: r consensus C.omsittrx,, Am J Clin Ntn 55:108, *These ht-soluble viamins are in addition to a sundard, age
appropriate dose of nonbt-soluble multiviamins. Malnutrition originating from either micronutrient deficiencies or generalized proteincalorie malnutrition affects appropriate dose of nonbt-soluble multiviamins. Malnutrition originating from either micronutrient deficiencies or generalized proteincalorie malnutrition affects appropriate dose of nonbt-soluble multiviamins. Malnutrition originating from either micronutrient deficiencies or generalized proteincalorie malnutrition affects appropriate dose of nonbt-soluble multiviamins. Malnutrition originating from either micronutrient deficiencies or generalized proteincalorie malnutrition affects appropriate dose of nonbt-soluble multiviamins.
Once again, this transition is ideally accomplished by monitoring oral intake and concomitandy decreasing the parenteral infusion to maintain a stable nutrient intake and when t}re parenteral infusion can be stopped. The first observableevenr in the process of
atherosclerosisis the accumulation of plaque lcholesterol fron-r low-density lipoproteins [LDLs], calcium, and fibrin) in large and medium arteries. Placement of a jejunostomy feeding tube at surgery is advisable, and enteral nutrition support is generally feasible within a few days after surgery (see Chapter 20). Meth R, Kimball S: Vitamin D in
congestivehean farl:ur.e, Am J Clin Nutr 83:731,2006. Iodine is now recognized as the most common cause of preventable brain damage in thi world, with millions living in iodine-deficient areas. Consumers must educate themselves about the appropriate application of each dietary supplement they choose to use and about selection of quality
products. Useof AlcoholandCigarettes Cigarette smoking and excessivealcohol consumption are risk factors for developing osteoporosis, probably because of two drinks or more par day has been found to be a risk for bone fractures in an analysis of three large European snrdies (Kanis et al., 2005)
Multiply the grams of dextroseper liter by 5. Physical Inactivity Physical inactivity, or a low level of fitness, is an independent risk factor for CHD. See n n l u o n, l l I / premature, definition, I 117 infarction, myocardial definition, 834 mortaliry 834 infection(s) opportunistic, definition, 991
vaginal, complicating pregnanry, I 84 inflammatory bowel diseases(IBDs), 689-695 care management, 692 medical nutrition therapy, 692-695 care management, 425-426 inflammatory bowel diseases(IBDs), 689-695 care management, 693 medical nutrition therapy, 692-695 care management, 693 medical nutrition therapy, 692-695 care management, 693 medical nutrition therapy, 693-695 care management, 693 medical nutrition therapy, 6
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be added to the program and, in the caseof ertreme or morbid obesity (BMI of 40 or greater), surgical intervention may be required. Institute of Medicine, Food and Nutrition Board: Dietary reference or morbid obesity (BMI of 40 or greater), surgical intervention may be required. Institute of Medicine, Food and Nutrition Board: Dietary reference or morbid obesity (BMI of 40 or greater), surgical intervention may be required. Institute of Medicine, Food and Nutrition Board: Dietary reference or morbid obesity (BMI of 40 or greater), surgical intervention may be required.
Meeting energy and nutrient needs a major challenge in the care of infants and toddlers with BPD (Carlson, 2004). See also Gastroesophageal reflur disease definition, 654 in pregnancy, 182 height, measurement direct methods, 12 I 3 indirect metho
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fall-out, Praa Gaxroenterol 18:63, 20Q4. Diet and other lifestyle choiceswill be geared towards the particular variants an individual has. KuehnemanT et al: Demonstratingthe impact of nutrition interventionin a hean failure program, J Am Diet, 4ssoc 102:1790, 2002. Commercially prepared liquid nutritional supplements can be included in many dietary
plans. A gene also contains introns, which are sequencesinterspersedbetween exons that do not code for amino acids.RNA polymerasetran- Nutritional Genomics37L 13 i Assessment: CHAPTER scribes the exons and introns into mRNA, which then must be processed(post-transcriptional processing) so that the introns are removed before the protein is
 slmthesized. Sachs GS et al: Parenteral nutrition implementation and management. Plaque pH can fall in as litde as 5 minutes and take up to 2 hours to return to neutral levels if no oral hygiene measures are inuoduced. Although a causal relationship between blue dye and adverse reaction has not been described, many hospitals have discontinued its
 use. Some medications can causeweight loss: check with the physician: add snaclisor enhancedmealsif needed. The assumption this stage often resul* in lack of adherence the part of the physician: add snaclisor enhancedmealsif needed. The assumption this stage often resul* in lack of adherence the part of the physician: add snaclisor enhancedmealsif needed. The assumption this stage often resul* in lack of adherence the part of the physician: add snaclisor enhancedmealsif needed. The assumption this stage often resul* in lack of adherence the part of the physician: add snaclisor enhancedmealsif needed. The assumption this stage often resul* in lack of adherence the part of the physician: add snaclisor enhancedmeals in lack of adherence the part of the pa
dosesof a modified PTH (1-34) molecule to improve both bone mass and density. EisenbergDM: Advisingpatientswho seekalternativemedical Ann IntetnMed 127:61,1997. Consumers are sarvy, and maintenancedata. petJrrlseJeq or peeu
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rualsureJgerli ur suorseT'8uruary,Lrruo esJo,r\sr ]Bql er{repeer{ e;o urcldruoc, {euruos-rada 'T. If the ability to consume one's regular diet will be altered, a diet modified in consistency can be individually designed for the patient or client. This gives the child time to "grow into" his or her weight. Given the evidence that a 5o/oto 10% loss of initial
weisht can resuk in health benefits, that many persons set weigit-loss goals that are unrealistic, and that fat discrimination continues to plague society, this approach may help some persons to develop a better relationship with food and a healthier perspective about their bodies. F or m u lC a omposition A wide variety of enteral feeding products are
commercially available. Foods high in simple sugars (such as sucrose and fructose) are low in chromium. Multicultural awarenessis the first step toward becoming competent in nutrition counseling. Jasti S: Dietary supplementusein the context of health disparities: cultural, et a l t u rG a lo u n s e l i n g Multicultural awarenessis the first step toward becoming competent in nutrition counseling.
2003. 994 PART5 j MedicalNutrition Therapy structured treatment interruptions, and new chemotherapeutic agents and vaccine development. Place pureed food into a pastry bag and pipe for a lovely plate presentation. 10-Fr feeding tube, with stylet, 43 inch, nonweighted 10. Glutamine and arginine, both contained in standard enteral formula
protein sources, may be conditionally essential amino acids under conditions of trauma and critical illness. As Table 21-3 illustrates, the programsvary considerably. Some require the use of proprietary prepackagedlow-fat meals. Prepackagedlow-fat meals. Prepackagedlow-fat meals are proprietary prepackagedlow-fat meals. Prepackagedlow-fat meals are proprietary prepackagedlow-fat meals are proprietary prepackagedlow-fat meals. Prepackagedlow-fat meals are proprietary prepackagedlow-fat meals are proprietary prepackagedlow-fat meals. Prepackagedlow-fat meals are proprietary prepackagedlow-fat meals are proprietary prepackagedlow-fat meals. Prepackagedlow-fat meals are proprietary prepac
and wine increasesgastric secretions, whereas low concentrations of ethanol may not @ujanda, 2000). Tieatrnent consists of low-iron diet, no iron supplements, and phlebotomy (blood removal) on a regular basis. An elevated blood level of homorysteine is an independent risk factor for vascular disease(see Chapter 32). @romJoint United Nations
Programmeon HIV/AIDSAIDS EpidemicUpdate, Genezta, Switzerland, 2006, bnp://data.unaids.org/pub/EpiReport/2006/12M aps 2006 EpiUp date eng.p df. Seealso Minerals definition, 587 drug, food effects on, 438
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B12,93 of vitamin C, 95 of vitamin D,74-75 of vitamin D,74-75 of vitamin E, 79 of vitamin D,74-75 of vitamin E, 79 of vitamin E, 79 of vitamin E, 79 of vitamin E, 79 of vitamin D,74-75 of vitamin D,74-75 of vitamin E, 79 of vit
! L L: 9: ! APPENDIXES L247 ObOOh hro:sggg3 s3 gv33 r Era! -E - v a *Oeasee ss $3se -ohoo -o+bo 6+r66 -^ \ E': F d + = v r + 8 r': a' FR = - rg P HgBgs = Rr -: i -\ ) P 6, H Oe > E \; Og" \b-i oI > o\got E o E O, Og \\ b-i oI > o E O E \\ C E O, E O C E C, EE o O
basedon clinical status. The largest percentage of the magnesium ions in bone exists in the bone crystals, probably at the surfaces only. Further studies clarified the valvular abnormalities (Khan et al., 1998), gastric tube in place for gastric decompressionand bilateral tubes in place for
postoperative abdominal wound drainage. "I just don't think that will work for me." Some li.ntr will express a lack of willingness to change or an intention not to change. The processes a lack of willingness to change or an intention not to chang
and pregnant or lactating women, even when they are medically stable. I just can't. NEUTVIONIA Among the pulmonary infections with nutritional implications is pneumonia. The role of vitamin A in treating pneumonia implications is pneumonia. The role of vitamin A in treating pneumonia implications with nutritional implications is pneumonia.
statementindicate about her stageof change? What patient conversation to? Xylitolflavored gums and mints may help to reduce the risk of associated decay. Macronutrients Dietary protein levels are increased in CF as a result of malabsorption; however, when energy needs are adequately met, individuals with CF generally can
meet their protein needsby following a typical North American diet. In Elliott L et al, editors: The clinical guide to oncohg nutrition, 2nd ed. Gas diffirsing capaaty, CO2 retenrion, respiratory inflammation and biochemical mediators such as hormonesand cytokinesaffect energy expenditure. CHAPTER 39 I Medical Nutrition Therapyfor
MetabolicStress:Sepsis,Trauma, Burns,andSurgery 1039 Nutrition Diagnosisl: Hypermetabolism as evidenced by recenttraumaandsurgery Nutrition Diagnosis and Surgery 1039 Nutrition Diagnosis and Surgery 1039 Nutrition Diagnosis and Surgery Nutrition Diagnosis and Surgery 1039 Nutrition Diagnosis and Surgery Nutrition Dia
gastric carcinoma. Since diabetesmay be a state of increasedoxidative stress, there has been interest in prescribing antioxidant vitamins in people with diabetes. The lungs enable the body to obtain the oxygen needed to meet its cellular metabolic demands and to remove the carbon dioxide produced by these processes. The lungs also function to filter,
wann' and humidifiz inspired air; ry.nthesize surfactant; regulate body acid-base balance; synthesize arachidonic acid; and convert angiotensin I. Grau MV et al: \4tamin D, calcium supplementation, and colorectal adenomas:results of a randomized trial, J Natl CancerInst 9 5:1765, 2003. DeBusk R, Joffe Y: Itl Not Jast Your Genes!San
Diego, 2006, BKDR. For women the increasedrisk comesafter the age of 55 years, AHA/NHLBI Criteriafor Diagnosis of the Metabolic Syndrome* Risk Factor Defining Level Abdominal obesity Men Women Tliglycerides HDL cholesterol Men Women Tliglycerol Men Women Tliglycerol Men Women Tliglycerol Men Women Tliglycerol Men Women Tligl
for hypertriglyceridemia Fasting glucose 60 18-39 40-59 Age' Y FIGURE 33-1 Hypertension categories such as soft drinks (diet and regular), sports beverages, citms juices and ",ades", and vitamin C supplements have high acid content and therefore Saliva
is supersarurated with calcium and phosphorus. Studies of Seventh-Day Adventists indicate that the diet results in lower rates of grpe 2 diabetes, breast and colon cancer and sall bladder disease. Most fruits contain from 1% to 70/ofructose, with some containing considerably greater concentrations. Fructose makes up about 3% of
the dry weight in vegetables and about 400/oof of Sugars and Artificial Sweeteners Sweetness Substance Sweetness Sweetness Substance Sweetness Substance Sweetness Substance Sweetness Sweetness Substance Sweetness Swe
(utraSweet)* Acesulfame-K (Sunette) Saccharin(Sweet'n Low) Sucralose(Splenda) Alitame (approval pending) *Nutritive (hascalories). L298 APPENDIXES Iodine is an important mineral that is found in a variety of foods, but it is most concentrated in foods from the ocean. McGuffin M et al, editors: AmericanHerbal ProduasAssociaquidelines
tion'sbotanicaltoftry handbook: for the safeuseand Boca Raton, Fla, 1997, CRC labelingfor herbsof commerce, Press. Becauseof the changes induced in the elderly. Cerebrospinal fluid surrounding the brain and spinal cord, synovial fluid surrounding
bone joints, and amniotic fluid surrounding a fetus are other fluids that can transmit HrV Saliva, tears, and urine do not contain enough HIV for transmission. Infection with the H. Vt cup cooked rice or pasta Nutrition intervention, including both the content and nutritionist's style, is a powerful determinant of resistance and
denial, as well as motivation, in persons who want to make changes in their diet. SeeGraft-aervr.s-host glnecologic age definition, 542 defini
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meatandfish, Cancer Sci 95:290,2004. The vast majority of human genes reside on nuclear chromosomes and are transmitted by Mendelian inheritance. Jump DB: Dietary polyunsaturated fatty acidsand regulation of genetranscriptron, Carr OpinLipidol 13:155,2002. SseDouble-blind, placebo-controlled food challenge DBP (diastolic blood pressure), 866
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prevention, fluoride in, 124 prevention guidelines, 642b dental health, 636-651. No food is allowed to be cooked on Friday and either kept warm in the oven or eaten cold. Patients who are receiving aggressive nutrition support should undergo routine monitoring of magnesium and
 phosphorus levels because of their cofactor roles in adenosine triphosphate generation. Morais JA et al: The effects of mandibulartwo-implant overdentures on nutrition in elderly edenrulous individuals, JD entRess 2:53,2001. It is calculated from measurement of the variances calculated from repeated measurements of an analyte: (1) specimens
that have been obtained, at several different times, from each ofseveral healthy persons (intrasubject variation); and (2) separate samples from a large specimen pool (analltic variation). A chronic diseasemodel involving caloric restriction, increased physical activity, and lifestyle interventions time context of an interdisciplinary approach offers the best
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41 I tests in, 414b basiliximab after liver transplantation, 726t BAI (brown adipose tissue) definition, 532 BCMS. TLrina M et al: Diabetesand hlperglycemia:strict glycemic control, Crit CareMed 34,5291,2006. Both the number and activity of these LDL receptors are major determinants of LDL cholesterol levels in the blood. Contentof Foods
Carbohydrate Food Calbohydrate (Percentage of Weight) Sugar Concentrated Sweets Sugar: Cane, beet, powdered, brown, maple Candies Honey (extracted) Slrup: Table blends, molasses Jams, jellies, marmalades Carbonated, sweetenedbeverages 99.5 90-96 70-95 82 ))-/) 70 l0-t2 Fruits Prunes, apricots, figs (cooked, unsweet)
 Bananas, grapes, cherries, apples, pears Fresh: Pineapples, grapefruits, oranges, apricots, strawberries t2-31 t5-23 8-14 Milk Skim Whole Starch Grain Products Starches: Corn, wheat (sifted) Popcorn (popped) Cookies: Plain, assorted Crackers, saltines Cakes: Plain, without icing Bread
White, rye, whole wheat Macaroni, spaghetti,noodles, rice (cooked): Oat, wheat, grits 86-88 68-85 70-80 77 71 72 48-52 23-30 10-16 Vegetables Boiled: Corn, white and sweetpotatoes, lima and dried beans, peas Beets, carrots, onions, tomatoes cabbage, LeaSr:Letruce, asparag'us, greens, spinach t5-26 5-7 3-+ contain repeating units of
the same Homopolysaccharides molecule. Liposuction (or liposculpture) involves aspiration of fat deposits by means of a 1- to 2-cm incision through which a tube is fanned out into the adipose tissue. Micronutrient considerations 7. Vitamin D Maintenance of an adequated ietary intake of vitamin D (400 to 600 units or 20 to 30 mg of
cholecalciferol)is important for healthy younger adults, but this dosemay be inadequatefor the many house-boundelderlywho fail to get adequateexposureto sunlight. (SNP)is the structural variant beststudied to date. However, ongoing analysis of the human genomes uggests that other structural variations may also play
an important role in the genotypicand phenotypic variation among humans (Feuk et al., 2006). Psoter and colleagues (2006) have reported that income and education levels are inversely related with ECC. Although the short-term benefits of supplementation have been well documented, nutrition status is likely to regress when supplementation is
discontinued. The long-term impact of intensive supplementation the course of the disease has not been determined. Parenteral nurition is best used for short-term support in patients with clearly evident needs such as those recuperating from gastrointestinal sur- gery. A food providing 5% of the DV or less is a source, whereas a food that provides 10% to
19% of the DV is a good source. Supplementation with 400 unis daily of vitamin E for 4.5 years did not result in any significant benefit on cardiovascular outcomes. The meglitinides differ from the sulfonylureas in that they have short metabolic half-lives, which result in brief episodic stimulation of insulin secretion. Hursting SD et al: Calorie
restricrion, aging, and cancer prevention: mechanisms of action and applicability to humans, Ann ReaMed. 54:131, 2003. to predicting Frankenfield et al: Validation of 2 approaches resting metabolic rate in critically ill patients, JPEN J Parenter EnteralNutr 28:259, 2004. Ayyobi AF et al: Cholesterolesterransferprotein (CETP) TaqlB
poly'rnorphisminfluences the effect of a standardized cardiacrehabilitation program on lipid risk markers, Atherosclerosis 181363, 2005. The counselor agrees with a piece of what the client saysbut then offers another perspective on his or her problems. In surgical nutrition there is concern about the potential adverse effects of presurgical use of dietary
supplements that alter the rate ofblood coagulation. Table 18-4 provides specific recommendations regarding the discontinuation of dietary supplements before surgery to avoid complications associated with prolonged bleeding time. The male-tofemale transgender group has an extremely high rate of HIV infection @liminating Disparities Working
Group, 2004). Small, frefermentable carboa diet considerably meals and minimal to prevent carres. DietaryReference Intakesfor VitaminG for Children andAdults Age(yeals) 1-3 4-8 9-r3 14-18 l9+ MalesandFemales(mglday) 15 25 45 75 for males;65for females 90 for males;75for females Pregnancy(mgldayl Lactation (mg/dayl N/A N/A N/A 80 85 N/A
N/A N/A lt5 120 Continued L292 APPENDIXES FoodSources Selected of VitaminC Food Guava, raw, % cup Red sweet pepper, raw, % cup Green pepper, sweet, raw, % cup Green pepper, sweet, cooked, % cup Grapefruit juice, 7+ cup Vegetable juice
cocktail, 7+ cup Strawberries, raw, % cup Brussels sprouts, cooked, % cup Broccoli, cooked, % cup Broc
Mango, % cup *Daily values(DVs) are referencenumbers Milligrams per Serving 188 142 116 70 70 6l-93 60 51 50-70 50 49 48 47 47 45 39 38 37 34 13 28 28 27 23 % DailyValue* 209 158 129 78 78 68-I 03 67 56.6 55.5-78 55 . Systemic sources have a topical benefit as well by providing fluoride to the saliva. 4I+-4r7, 415-417t s p e c i m e nq p e a n
d, 4 1 3 usefulness, 412-414 lactalbumin definition, 199 in human milk, 206 lactase deficiency, 746 food reactions from, 745t definition, 2 in digestion and absorption absorption, 6t in disaccharide digestion, 45 insufficiency, 746 food reactions from, 745t definition, 2 in digestion, 45 insufficiency, 746 food reactions from, 745t definition, 2 in digestion and absorption and absorption and absorption are asymptomatic. If the condition of the mouth adversely affects one's food
choices, the person with chronic diseasemay not be able to follow the diet optimal for medical nutrition therapy. LES pressure also decreasesduring pregnancy, in women taking progesterone-containing oral contraceptives, and even in the late stage of a normal menstrual rycle. "Hot" foods include chili peppers, garlic, onions, most grains,
expensivecuts of meat, oils, and alcohol. Amino acid: 9/100 ml (e.g., 10% amino acid: 9/100ml) C. Most storage fat is considered "expendable." The totality of fat stores in adipocytes is capable of extensive variation, thus allowing for changing requirements of grouth, reproduction, and aging as well as fluctuations in environmental and physiologic
circumstancessuch as the availability of food and the demands of physical exercise. The range of total body fat (essentialfat plus storage fat) expressed as a percentage of total body weight that is associated with optimum health is 8"/o to 2470 in males and 21"/" to 350/" in females (Gallagher et al., 2000), although professional and elite athletes have body
fats much lower than those of the averageperson (Figure 21-1). More research is needed to assessthe safety of this substancefor long-term human consumption. These young women may benefit from the use of oral contraceptive agents plus calcium and vitamin D supplements. A report from the International Food Information Council (FIC)
suggests that consumers cannot clearly distinguish qualified from unqualified from unqualif
persons are affected by osteoporosis, the increasing longevity of the population emphasizes the need for prevention ofosteoporosis. Although many foods are allowed, certain codes must be observed, and some dietary restrictions exist. There are two reasons for the large discrepancy in the critical differences for these three proteins. I love them.
Nutrition Counselor: "Could you compromise? Even with the same caloric intake, rates of weight reduction vary. What other open-endedquestionscould you askto determine intention to change? These include Roux-en-Y gastric bypass and biliopancreatic diversion with duodenal switch. Continued use of a botde filled with fruit drink, soda, or
strawberry-flavoredmilk three times a day, including at nap tlme. (TNF-o') Acute-phasereactants Fibrinogen C-reactive protein Serum amyloid A (SAA) White blood cell count Other Erythrocyte sedimentation rate From Pearson TA et al; Markers of inflammation and cardiovascular disease: application to clinical and public health practice; a statement
for healthcare professionals from the Centers for Disease Control and Prevention and the American Heart fusociation, Cirrulation 107:499, 200J. The funding of studies that evaluate botanical-drug interactions is a priority of the NCCAM. In advanced stages of diseasethe patient may refuse tube feedings, choosing not to prolong life. Nutritional
deficits may be compounded by the tneatment, which commonly involves surgical resection, regional irradiation, or chemotherapy. (IVlod.iftdfrom Zibrida JM, CarlsonSJ: Transitionalfeedings.In Gottschlichg MM et a/.; Nutrition support dietetics core curriculum, ed 2, Silaer Spring, Md, 1993, American Society for Parenteraland Enteral Nutrition, and
RolandelliNH et al.: Clinical nutrition: enteral and tube feeding, ed 4, Philadelphia, 2005, Saanders.) Lactose is not used as a carbohydrate source in most formulas because a first generation drug little used today, and several second-generation bisphosphonates such as
alendronate and pamidronate. How would you help her implement it? In the case of the S-year-old girl, if her mother reports reaching adult height at age 15, then probably her daughter will do the same. Thus the daughter has 7 years of growth remaining. The iodine content of fruia and vegetables depends on the soil in which tley were groun; the
iodine content of animal foods, outside of those from the ocean, depends on where they were raised and which plants they consumed. 21 I WeightManagement559 CHAPTER Suggestions for Increasing EnergyIntake Protein Additional Foods kcal (s) Plus 500 kcal (Served Between Meals) l. UeharaM et al: Componentsof energyexpenditurein patients
with severesepsisand major trauma:a basisfor clinical care, Crit CareMed 27:1295,1999. Z 0 0 Z , l : Sg lopraJ 'f 'snl:;pse f ru1 Plot?runerlruI erxeqre3:U JJoueqno1 qrturqerl6 's002'9:08 ':eluat ereclnruel e te urerSo.rdlueuneeJ] Jtrd utD o[u1r11 ? Other risk factors include gastrinoma; Zollinger-Ellison syndrome; and the use of tobacco products,
alcohol, NSAIDs, and aspirin (Scheiman, 2005; Israel and Peek, 2006; Guzzo, 2005). Acad Rndiol 12:1475, 2005. .......
                                                                                                                                                                                                                 ..M.8o/o M u s c | e . Initialfeeding- 240 cc water. result in low hemoglobin levels, resulting in diminished With the long-sanding interest in natural remedies orygen-carryingcapacityof the blood. Nutrition is an important component
in the care and management of individuals with advanced cancer. The two common anticoagulants for whole blood for measurement (EDTA), a calcium chelator used in hematologic analyses, and heparin (maintains the blood in its most natural state).* Bhod celb-Separated from anticoagulated whole blood for measurement
of cellular analyte content. Isolated proximal RIA in the adult is a benign disease, which is often made worse with bicarbonate treatment and therefore should not be treated. PxnRMAcoLocrc Use of NurRrENTs Nutrition is entering an era in which ongoing research suggests a therapeutic role for specific nutrients and other food substances. This
research shows promise for the future as researcherslearn more about specific metabolic pathways in disease, stress, and trauma and begin to be able to manipulate these pathways with the use of specific metabolic pathways in disease, stress, and trauma and begin to be able to manipulate these pathways with the use of specific metabolic pathways with the use of specific metabolic pathways in disease, stress, and trauma and begin to be able to manipulate these pathways with the use of specific metabolic pathways with the use of specific metabolic pathways in disease, stress, and trauma and begin to be able to manipulate these pathways with the use of specific metabolic pathways in disease, stress, and trauma and begin to be able to manipulate these pathways with the use of specific metabolic pathways in disease, stress, and trauma and begin to be able to manipulate these pathways with the use of specific metabolic pathways in disease, stress, and trauma and begin to be able to manipulate these pathways with the use of specific metabolic pathways in disease, stress, and trauma and begin to be able to manipulate these pathways with the use of specific metabolic pathways in disease, stress, and trauma and begin to be able to manipulate these pathways with the use of specific metabolic pathways in disease, and the use of specific metabolic pathways in disease, and the use of specific metabolic pathways in disease, and the use of specific metabolic pathways with the use of specific metabolic pathways and the use of specific metabolic pathways are used to be able to manipulate the use of specific metabolic pathways are used to be able to manipulate the use of specific metabolic pathways are used to be able to manipulate the use of specific metabolic pathways are used to be able to manipulate the use of specific metabolic pathways are used to be able to manipulate the use of specific metabolic pathways are used to be able to manipulate the use of specific metabolic pathways are used to be able to manipulate the used to 
been done to establish their clinical significance in GERD symptoms or reflux or their complications when used in normal amounts. Peppermintoil has been studied and has been found to have strong antibacterial and antiviral benefits; however, is usein GERD symptoms or reflux or their complications when used in normal amounts. Peppermintoil has been studied and has been studied and has been found to have strong antibacterial and antiviral benefits; however, is usein GERD symptoms or reflux or their complications when used in normal amounts. Peppermintoil has been studied and has been studied 
care providers about their use ofalternative therapies either because they are not asked or becauset Jrey are afraid of the reaction (Kemper et a1.,2003). Communication through open-ended questions, listening with empathy, and an unbiased approach is essential to successful intervention (see Chapter 19). CHAPTER 33 i Medical Nutrition Therapy for
Hypertension881 responseanalyses, those with greater sodium reduction had fewer occurrencesof averageSBP over 150 or DBP over 90 (App.l et al., 2001). Severesodium restrictions are not adopted because these could lead to volume depletion in older patiens with renal damageOIIH, 2004). Many clinicians do not use phase to enteral or oral feeding. To
date few studies have investigated the effects of dietary variables on CRP (flamer and Steptoe, 2006). Deitch EA: Multiple organfailure, Ann Surg2l6:117,1992. Clinically a total triglyceride level is a measurement of the triglyceride carried on VLDLs. remnants. What is the rationale for starting enteral nutrition through the needle catheterjejunostomy
even though Jerome was on gastric decompression? I erome is a 44-year-old man admined to the emergenry U room after a motor-vehicle accident. Increases in energy expenditure through exercise and other forms of physical activity are important components of effective interventions to enhance weight loss and the prevention of weight regain
FORMULA: Checkthe desired formula Form
what the nutrition counselor has said (i.e., the accuracy of the nutrition content). Soluble fibers also bind other nutrition content). Soluble fibers also bind other nutrition content in a high-profile accounting firm, working long hours in a
stressfulenvironment. 6 yearsof age, Arcb Pediat Adolcsc for specialpopulations: diabetes SowersJR: Recommendations mellitus and the metabolicsyndrome, Am J Hypntms l6t4lS, 200t. that ancillaryservices orovided. snloq e^rseqoJ
e Suruuoy ,{rpcggrp e,req deur luaned eqJ 'sJer.poJo tuo{ ur lee ol lue^\ lou duur pue Surloorp dq passerreqrueeJE slueDed ',&\Brss q8norqr >1cnsro 'dnc E punoJB IEes e rrrJoJ 'sdq agl yeas,\aralduoc ot ,tqrqeur ar1lur lpseJ selJsnrudq peualeerll'Surrrolens;o asrqd pro arp SuFaldruoc ul sualqord or pral pue stuerua^our en€uol peleurprooJ, (Food
Jo poua>lBa^ruI llnseJ deur e8eurep e Jau FruBrJerlur ro dJI peseercul'(t-It arnSrg aas)atepd Tos puu preg eql lsureSe prE^DIrBq lr Surzaanbs r(1enper8 dq lryrrc IBro erp Jo ruer erfi 01 pooJ aqr seqsnd an8uor eqa 'en5uot etp dq snloq B olur paulroJ pue 'LresseceuJrpaaerlJ 'u,rqrs glrrn sr lr arer{^\ 'tpnour e{r ul paceld sr PeurquroJ poo;
 '3ur,no1le.^rs Jo saseqdlero puu ,ftoterederd arp Suunq ssa 3 or dls, |0a q l :6ur l P3 'eJBSunauole tueBed egr Suvreal sa>letu srgJ's (set snora8uepJo eJuurrrroJradeqr ut llnseJ uEJ pue IIO^. However, children can sometimes develop iron toxicity by earing iron supplements, mistaking them for candy. may be one of tlre reasons for lack of successing the successing the successing to the successing the succession that successing the succession that successing the succession that successing the succession that succession the succession th
long-term maintenance of many intervention programs (Resnicow et a1.,2006; Prochaska et al, L994). With foods containing sugar alcohols, one half of sugar alcohols, one half of sugar alcohols, one half of sugar alcohols containing sugar alcohols, one half of sugar alcohols ask to determine the
patient'soptimism relative to change? Cariostatic foods, or foods that do not contribute to decay, are not metabolized by microorganisms in plaque and do not causea drop in salivary pH to 5.5 or less within 30 minutes. Beneficiaries have the option of paying for ancillary services of homeintusion therapy out-of-pocket. Nor-ReADY-To-CtnNGE
GouNsELrNc SessroNs To approach the not-ready-to-change stage of intervention, three goals are the focus: (1) to identify and reduce the client's needs. They are generally older
and have mild hypoxemia but normal hematocrit values. Sucroseoccursnaturallyin manyfoodsandis also a natural form of sugar (unlinkedglucoseand fructosein a 1:1 ratio) it is sweeterthan equalconcentrausedcommercially because tions of
sucrose. Invert sugarforms smallercrystals than sucrose; thus invert sugaris preferred to sucrose in the preparation of delicatecandies and icings. Honry is an invert sugar. PowersSW et al: A tool to individualized nutritional assessment (CF)
IN'IAKE), Cbil.dHeahhCare34:113,2005. Appendix 32 describesavailableenteral preparations. Generalpurpose commercially prepared formulas serve most needs. People cycle through different phasesof changing and maintaining their dietary modifications. Naylor CJ et al: Does a multidisciplinary total parenteral nutrition team improve patient
outcomes? Hypoglycemia can occur during, immediately after, or many hours after exercise. Reference ranges often are determined by obtaining blood from personnel working in or near the clinical laboratory. Following the manufacturer's advice about storage and administration of a particular brand of en:zymeis important to highlight with each
patient or family member. o Previous medical therapiesfocusedon alleviation of symptomsof HF; newer treatnents try to prevent progressivedeterioration in heart function. Similarly, a drop in blood sugar levels triggers the release of epinephrine and glucagon that, in turn, bind to cell surface receptors in the CHAPTER13 1 Assessment: Nutritional
Genomics 377 liver and skeletal muscle and, through signal transduction, stimulate glycogen breakdown to glucose to restore blood sugar levels. The CPN catheter site is a potential source for introduction of microorganisms into a major vein. herb, which induces diarrhea, can lead to low potassium Dehydroepiandrosterone @HEA): Among other
claims, levels. Typically exenatide injected twice a day, at breakfast and at the evening meal. gov/HealthInformation/ DiseasesAndConditions/DiabetesAndCo
the onset and progression of arthritis. Adantic oysters contain more zinc per serving than any other food, but red meat and poultry provide the majority of zinc in the American diet. For a food to earn the designation [email protected], 957" or more of the ingredients must be organic and must have been produced in fields that use
renewableresourcesand conserve soil and water to enhance environmental quality. The defense mechanisms of the gingival tissue, epithelial barrier, and saliva are affected by nutritional intake and status. With increasing knowledge of diet and diseaselinks that lead to premature disability and mortality among Americans, an appropriate diet is now
considered one that helps reduce the risk of developing chronic degenerativediseases and conditions. Dietary Sources Rich sources of magnesium include tofu, legumes, whole grains, green lea$r vegetables, wheat bran, Brazil nuts, soybean flour, almonds, cashews, blackstrap molasses, pumpkin and squash seeds, pine nuts, and black walnuts. Poorly
controlled diabetes can result in burning tongue syndrome, candidiasis, and xerostomia, which in turn compromise a person's eating ability and appetite and may exacerbate poor blood sugar control, leading to a cycle of debilitating health (see Chapter 30). NeuRoLocrc DrsEAsEs AnrsrNcFnomNurRrrroNAL DrrrcrENcrEsoR ExcESsEs B e r i b e raintended to a cycle of debilitating health (see Chapter 30).
dP e l l a g r a The major manifestations of thiamin deficiency in humans involve the cardiovascular (wet beriberi) and nervous (dry beriberi, neuropathy, or Wernicke-Korsakoff syndrome) systems. He takes a high-potenry daily multivitamin-multimineral with extra vitamin E and B vitamins for stress, a caffeine-containing supplement to give him
energ:y,St. John's wort and kava for anxiety, valerian at night to help him sleep, and vitamin E and omega-3 fatry acids to protect againstheart disease. Bagel or muf6ns can be 2, 3, or 4 oz in size and therefore can count as 2,1, or 4 sarch choices. The following questionsmight help the client identif, options: ..tro1dolerep og.tr uaruo1\'.rla.ro1 euog
ssale^eq CIWB >1ead oLllslo ssol elp ol patserruor sr srasoltsrt se ot perreJerueuro, {r eruosuI (AWS) lrrsuap lBrrulru euoqJo ssolprder aqa 'a8e;o srue-, (.{lareurxorddete esnedoueluJo lesuo egr 3ur.rlo11o3 95 ssoleuogJo surauedelqerre1 /-tZ IU1SIJ selerueJJo (sreaA)eby 0L09090v080 tF 'seJnlJE { = o ruorodoatso roJ rotreJ Tsrr B sr JIa$l CIWfl ^\oT
 pernseeurere eurq lsuuoN -etrel regrunl pue rnural yuurrxordorp se r{rns selrs leuorSer eIIt pue CIWS g ;7-1 t q 4'Surstrru crpaedoqr,r ( d'stapunag' y 66 1' ryqd1apa1 S t' O -gJns rou sr sJe{Jeruauoq patJeles pue 'azrs erur.g 'asrc 'gV
e sl (CWg) &rsuep Iereurruauoq aol acurs 'ssol euoq rer{rJry tue,rard ol Pu? pylori-is it a novel causativeagent in Kaptan K et al: Helicobacter vitamin B12deficienry?Areh Intem Med 160:1349,2000. However, to restorevascularfunction, the amount of weight that must be lost, the time of weight maintenance,or the amount of improvementing
,14). Health care is provided to the residents who reside in these facilities, often older individuals and younger adults with chronic, debilitating illnesses or who are recovering from SubstancesBeing Investigated for Potential Therapeutic Effects in Enteral or Parenteral Solutions Antioxidants such as B-carotene, vitamin E, vitamin E, vitamin A, zinc
copper, manganese, and selenium have specific roles in deactivatingfree radicals. National ActionPlanfor Survivorship http://www. The molecularbasisof diseaseprovides the outcome. gov Internet Grateful Med http://igm.nlm.nih.gov References Abbott WO
metabolic risk factors (Nicklas et al., 2000). Criteria for selecting a home care company to provide nutrition support Home Tirbe Feeding-At Its Best WhatIs the BestKindof Tube? In the carotid arteries an ultrasound measuring intimal thickness is the preferred noninvasive method, whereas in the coronary arteries intravascular ultrasound is preferred.
for invasive assessment of atherosclerosis (Sankatsing et al., 2005). Feeding Strategies Diet compositionand food selections should be planned to accommodate the nutritional requirements, individual prefof the patient. On postoperative day 3, Thomas, abdomen was soft and nondistended, and bowel sounds were hipoactive. On examination by the
(Within the 5th-85th Percentile for BMI) EER: TEE + Energydeposition E E R: 1 3 5 . 1. ASPEN Board of Directors: Guidelines for the use of parenteral nutrition in adult and pediauic patients, JPENJ Parenteral Nutr 26:13, 2002. This macrobiotic diet derives 507" to 60o/oof its caloriesfrom whole grains; 25o/oto 30% from
maintainingbone and reducingfractures, hasbeenfound to be effective. lnq 'uonetueurelddns req-rea uo 61Wg peure8 oqrn slce(qns eqr dn paaolloJ e^Eq serprus ,v\eJV 'CWg dpoq pror pue leurds ur sesueJJurlueJgru 8cu 965 8- tZ 3* t 3* SI 3* S-Z 3* OOg-OOt $r-un000I-009 ueruo r raEtmodroJ 00ZI-0001 'uaruo,r psnudoueuqsodrol fepTSurgggl)
ururetl\ raddo3 uorofl )urz asauuSuelq urnrsatr8elq (I urrustr^ urnrJIBJ Aegre4 silnpvr0l sluaulnN pelEleu-auog lo salululpepueuuoceu ssauill puprllluaHr0l uotlplnN i t fUVa ZZg 'GOOZ''F le ue,r1lng) qcre14 pue:aqurardes uaa^\taq %SI pasEaJJurHJd turuas pue y"gz pesBerJep uortErluoruot (lourrcpc ot -rosrnca-rde pue Je rT etp ur paurro;)
of fat, with more than twice the kilocalories of protein, is not only more effrcient but also sparesvital protein tissues. For select botanicals there can be wide variability in response, and routine recommendations for all patients may not be appropriate. iEquivalent in protein to 7 oz of animal protein; at least one of theseservings should be a
vegetableprotein. J Mental HeahhCounseling Prochaska JO, DiClemente CC: Tianstheoreticaltherapy:toward a more integrative model of change, Psychother TbeoryResPraa 20:161,1982. Disorders659 CHAPTER 26 I Medacal for UpperGastrointestinalTract NutritionTherapy prove mucosal protective systems (Scholl and JensenJarolim, 2004; Platel and
National health printotiln and disease preaention objectives, Washington, DC, 1990, U.S. Department of Health and Human Services. Listeriosis . SeeMyocardial infarction dysfunction syndrome as, 1025-1012S . Diarrhea and copious airway
secretions began during hospital week 3. Intakesfor Selenium DietaryReference andAdults for Ghildren Age (years) Males and Females (mcg/dayl Pregnancy (mcg/dayl Pregn
Brazil nuts, dried, unblanched, I oz Tirna, light, canned in oil, drained, 3 oz Beef, cooked, 3% oz Spaghetti w/ meat sauce, frozen entr6e, I serying Cod. Table 44-5 suggestsqpical low-Phe food patterns for young children. has struggled with changing her dietary fat inmke and keeping her carbohydrate intake consistent over the past several months.
You can learn from your setback and do better in the future. Peptic ulcers normallyinvolve two major regions: gastric and duodenal. Copiesof thefull replr't are aaailablefrom the BAPEI, { OJf.ce, Secure Hold Bttsiness Centt'e, Studley Road, Redditch, Worcs 8^198 7LG Tel: 01527 1t78t0.) Ifunable to obtain height and u'eight, alternative rneasurements and under the studies of the future.
subjectivecriteria are provided (Elia, 2001). CBT is an effective treatment for body-image difficulties and disordersbecauseit promotes changesthat are generalized improved self-esteem, eating attitudes, and social anxiety. com http://www.frni.orglfoodsafety/avian flubrochure.htrn http://www. Serurn-The fluid that remains after whole blood or
plasma has coagulated. Osmolarity (peripheral versuscentral infusion) B. It is not usually a weight-reduction technique but ratler atcosmetic surgery because usually only about 5 lb of fat are removed at a time. These surfaces lack an enamel layer and therefore are more vulnerable to rapid decay. Thereafter: As needed. Exchanges of dialysis fluid are removed at a time.
 done four to five times daily, making it a 24-hour a day treatrnent. Consumption of temperate, moist foods without added spices should be encouraged. No diet was optimal for reducing hunger. )6t lipodystrophy definition,532 in fat storage,534-535
lipoprotein(s),837-839 ascardiovascular risk factors,425, 425b definition,833 high-density, 839 intermediate-density, 839 definition,833 low-density,839 definition,834 modifies,asoxidativestressmarkers,428t metabolismand,839 plasma,characteristics/functions, 838t profile, in cardiovascular diseaserisk assessment, 843-848 very low-density,839 definition,831 low-density,839 definition,833 low-density,839 definition,830 defin
definition, 834 lrposuc[on, ))]-)).t definition,533 liquids,swallowing,1074-1075 L332 Index listerinmono Etogenes (LM), 327t of, in pregnanry,181 avoidance lithium, resorption,sodiumresorptionand,438 liver damage,drugscausing,446
diseases, 7ll-726 alcoholic, 7 13, 7l4f definition, 707 aminoacidsalteredin, 724b cholestatic, 7 ll-7 l5 in, factors end-stage, nutrition in, 7 18, 7 l9f, 720-721, 720f nutrition assessment in, subjective global parameters for, 719b
ll47t, 1164 definition,1141 (LCAD) long-chainacyl-CoAdehydrogenase deficiency, 1147t long-chainalcohols,57 longevity calorierestrictionand,23b weight(LBW), 1118 definition,1117 low-birth-weight (LBW) infant, 1117-114 (long-chainalcohols,57 longevity calorierestrictionand,23b weight(LBW), 1118 definition,1117 low-birth-weight (LBW) infant, 1117-114 (long-chainalcohols,57 longevity calorierestrictionand,23b weight(LBW), 1118 definition,1117 low-birth-weight (LBW) infant, 1117-114 (long-chainalcohols,57 longevity calorierestrictionand,23b weight(LBW), 1118 definition,1117 low-birth-weight (LBW) infant, 1117-114 (long-chainalcohols,57 longevity calorierestrictionand,23b weight(LBW), 1118 definition,1117 low-birth-weight (LBW) infant, 1117-114 (long-chainalcohols,57 longevity calorierestrictionand,23b weight(LBW), 1118 definition,1117 low-birth-weight (LBW) infant, 1117-114 (long-chainalcohols,57 longevity calorierestrictionand,23b weight(LBW), 1118 definition,1117 low-birth-weight (LBW) infant, 1117-114 (long-chainalcohols, 1117-114 (long-chain
dischargecare, l136-1137 grouth, ll33 -1116, ll33f, ll34f, 1135f, I I 36f neurodevelopmental outcome, 1137, 1138f nutrIflon l133-1136 assessment, requirements, ll20-1129 nutrrtron support enteralfeedingsin, ll25-1133. Drugs are often necessary to lower triglyceride levels in these patients. Tiiglyceride measurements are now considered in relationship to
other risk factorssuchas glucoseintolerance, hlpertension, low HDL cholesterol, and high LDL cho
essential 6rlH,1998). Buchman Al et al: Intestinal immune function is unaffected by parenteral nutrition in mary J Am Coll Nutr 14:656, 1995. Several amino acids are precursors of oxalate via glyoxylate or glycolate. Inulin and related compounds are used widely in the commercial formulation of innovative food products to improve the flavor (added
sweetness) of low-calorie foods and to improve the stability and acceptability of fat-reduced foods. Isoffavones in soybeans, which function both as estrogen agonists and antioxidants in bone cells, have been without effect in young
 adult females with normal estrogen status (Anderson et a1.,2002). For example: Client: "I will never be able to follow this low-saturated fat diet as long as my grandchildren come to my house and want snacts." Nutrition Counselor: "Are you sure that this is really the problem? Meat and milk cannot be combined in tlle same meal. Figure 19-3 shows a
nutrition counselor listening reflectively to her client. SeeNutrition care process NEAL SeeNonexercise activity thermogenesis neck, cancer, oral manifestations, 506 indications for, 510 needs assessment, for community-based nutrition services, 3 13-3 14
negative acute-phase respondents definition, 41 1 to stress,418 negative vitamin B12balance,819 definition, 489 in unsure-about-change counseling sessions, 501 nelfinavir mesylate (\.4racept), nutritional complications of, 1005t neonatal period. eatri ght. High-risk groups are marginalized by society. Malik PE, ZalogaGP
Gastricversuspost-pyloricfeeding: a systematicreview, Crit Care 7(3):46,2003. Foods that contain a significant amount of vitamin K include beef liver, green tea, turnip greens, broccoli, kale, spinach, cabbage, asparagus, and dark green letnrce. Brown adipose tissue (BAT), seen in infants and in very small amounts in adults, occurs primarily in the
scapular and subscapular areas. The brown color is due to extensive vascularrzanon. In animals it appears to be involved in heat production as a means of adapting to cold and possibly of dissiparing excess energy. Its function in humans remains poorly understood, but it is possible that BAI is a key regulator of energy expendirure (F{ansenand
Kristiansen, 2006). In CoxJD, Ang KK, editors: Radiation oncohgt: rationale, technique, resahs, ed 8, St Louis, 2003, Mosby. Both of these types of fiber have been shown to have beneficial physiologic functions in the GI tract and in reducing risk of certain diseasestates. These fibers and their functions are summarized in Thble 3-3. In addition, surger
radiation therapy, and chemotherapy are modalities used to treat oral cancer that also can affect dietary intake, appetite, and the integrity of the oral cavity. Once each has bound its ligand, omega-6 fat and retinoic acid (vitamin A derivative), respectively, the PPAR-RXR complex can then bind to a specific DNA sequence (response
element) within the regulatory region of the gene. anthropometric data such as arm muscle and fat areas, it is possible to determine whether health-endangering underweight really exists. Selenium, as a nutrient that functions as an antioxidant, may be protective against some types of cancer. NIIANES: National Health and Nutrition Examination
 Survey, accessed February availableat www.cdc.govlnchs/nhanes.htrn, 5,2007. The frequency of these adverse effects can be minimized with food consumption. Radiologic verification of the tip site is necessarybefore infusion of nutrients can begin
Because of their role in inflammation and immunity, epidemiologic researchis investigating the role of EFAs (Merchant et al., 2005). Mann DL et al: New therapeutics for chronic heart faihur.e, Annu R n M e d5 3: 5 9. Previously healthyyoungmen were reported to have unusual opportu-HIV particle ViralDNA F I G U R E3 8 - t H I V l i f e cycle. NIG
National Advisory Grorp; AMA. Peng X et al: Effects of enteral supplementation with glutamine granules on intestinal mucosal barrier function in severely burned patients, Burns 30:135, 2004. Principles of Nutritional Laboratory Testing A. Carbohydrates The percentage of total calories provided as carbohydrates in enteral formulas varies from
30%"to 9070, depending on the condition for which the product was designed. The medication profile should be assessed for food and nutrient interactions. Age Age is a nonmodifiable risk factor for CHD. Careabsorption. In the fed state insulin is the principal
anabolic hormone and is responsible for fuel storage and use. It is produced by the B cells of the islets of Langerhansin the pancreasand released into the bloodstreamin responsero the postprandial increase in blood glucose. Insulin released into the bloodstreamin responsero the postprandial increase in blood glucose. Insulin released into the bloodstreamin responsero the postprandial increase in blood glucose. Insulin released into the bloodstreamin responsero the postprandial increase in blood glucose. Insulin released into the bloodstream in response in the bloodstream in response in the postprandial increase in blood glucose. Insulin released into the bloodstream in response in the bloodstream in response in the postprandial increase in blood glucose. Insulin released in the bloodstream in response in the bloodstream in response in the bloodstream in the postprandial increase in the bloodstream in the bl
bodies. For paSomeCausesof Acute RenalFailure tientswho receiveTPN, high concentrationsof both carbohydrate and lipid can be administered fulfill theseneeds Prerenal aslong asrespiratorystatusis monitored. Coefficient of fat absorption Sample Calculation If the child is growing adequately the adult is maintaining weight and if the pulmonary
status and stearorrheaare under good control, the toal energy requirement CIEE) is reflective of the person's typical energy use and intake. Formula: Schedule: REGISTERED DIETITIAN: 1, NUTRITIONAL GOAL
Formula: Calories: Protein: Vitamins/Minerals: 2. Fat and micronutrient considerations: D. Therefore recent increasesin the frequency ^U.S. ofthese conditions may be the result of aging of the population. By 2030 about 207" of Anericans (about 72 million people) will have passedtheir 65th birthday and subsequently will be at high risk for OA and
rheumatic disease6lltA /IS, 2006a). The diet should be nutritionally adequate except for energy, which is decreased to the point at which fat stores must be mobilized to meet daily energy needs. Lingstrom P et al: Food starchesand dental caries, Crit ReoOral BiolMed 11:166,2000. By definition, enteral means "within or by the way of the
for you to tell me this. Gastric oudet obstmction occurs more commonly with duodenal ulcers than with gastric metaplasia may occur with gastric metaplasia may occur with duodenal ulcers than with gastric metaplasia may occur with gastric metaplasia may occ
considered when assessing vitamin K intake. of Chapter 44 lor an in depth treatment Dietary modification is a primary treaffnent modality for these disorders. Phenylalanine hydroxylase is defective, leading to an inability to convert the amino acid of this que of disorder. The gene coding for the enzyme phenylalanine hydroxylase is defective, leading to an inability to convert the amino acid of this que of disorder. The gene coding for these disorders are inability to convert the amino acid of this que of disorders. The gene coding for the enzyme phenylalanine hydroxylase is defective, leading to an inability to convert the amino acid of this que of disorders. The gene coding for the enzyme phenylalanine hydroxylase is defective, leading to an inability to convert the amino acid of this que of disorders.
phenylalanineto tyrosine. The most useful clinical tool for measuring thyroid function and thus iodine sufficiency is to measure thyroid-stimulating hormone (TSH), which is released from the pituitary gland and stimulates th1'roid hormone production and thus iodine sufficiency is to measure thyroid-stimulating hormone (TSH), which is released from the pituitary gland and stimulates th1'roid hormone production and thus iodine sufficiency is to measure thyroid-stimulating hormone (TSH), which is released from the pituitary gland and stimulates th1'roid hormone production and thus iodine sufficiency is to measure thyroid-stimulating hormone (TSH), which is released from the pituitary gland and stimulates th1'roid hormone production and thus iodine sufficiency is to measure thyroid-stimulating hormone (TSH), which is released from the pituitary gland and stimulates th1'roid hormone production and thus iodine sufficiency is to measure thyroid-stimulating hormone (TSH), which is released from the pituitary gland and stimulates th1'roid hormone production and thus iodine sufficiency is to measure thyroid-stimulating hormone (TSH), which is released from the pituitary gland and stimulates th1'roid hormone production and thus iodine sufficiency is to measure thyroid-stimulating hormone (TSH), which is released from the pituitary gland and stimulates that the pituitary gland and stimulates th
food contains a lot or a linle of a specific nutrient. Qi L et al: Gender-specificassociation fa perilipin gene haplotypewith obesityrisk in a white population, ObesRes 12:1758,2004b. Amylose is a smaller, linear molecule (105 to 106 daltons) that is less than lo/o branched. Low-water containing foods that are energy dense such as potato chips, crackers,
and fat-free cookies are restricted. mutans (Hildebrandt and Sparks, 2000) and the impact of gum chewing on salivary stimulation. Therefore maternal nutrition must supply the preeruptive teeth with the appropriate building materials. Diets were divided into categories on the basis of their macronutrient content and included high-fat, low-
carbohydrate; moder ate-fat, balanced-nutrient reduction; and low- and very-low-fat diets. foods that have contact with these contaminants is an ongoing issue being monitored by advocacy and professional groups and governmental agencies. gov/disasters/foodwater. and managementin cystic RamseyBW et al.
Nutrition assessment fibrosis:a consensusrcWrt, Arn J Clin Nutr 55:108,1992Reed CE: The natural history of asthma, JAllerg Clin Imrnunol ll8:543,2006. Nag'ayaN, Kang'awaK: Therapeuticpotential of ghrelin in treatment fibrosis:a consensusrcWrt, Arn J Clin Nutr 55:108,1992Reed CE: The natural history of asthma, JAllerg Clin Imrnunol ll8:543,2006. Nag'ayaN, Kang'awaK: Therapeuticpotential of ghrelin in treatment fibrosis:a consensusrcWrt, Arn J Clin Nutr 55:108,1992Reed CE: The natural history of asthma, JAllerg Clin Imrnunol ll8:543,2006. Nag'ayaN, Kang'awaK: Therapeuticpotential of ghrelin in treatment fibrosis:a consensusrcWrt, Arn J Clin Nutr 55:108,1992Reed CE: The natural history of asthma, JAllerg Clin Imrnunol ll8:543,2006. Nag'ayaN, Kang'awaK: Therapeuticpotential of ghrelin in treatment fibrosis:a consensusrcWrt, Arn J Clin Nutr 55:108,1992Reed CE: The natural history of asthma, JAllerg Clin Imrnunol ll8:543,2006. Nag'ayaN, Kang'awaK: Therapeuticpotential of ghrelin in treatment fibrosis:a consensusrcWrt, Arn J Clin Nutr 55:108,1992Reed CE: The natural history of asthma, JAllerg Clin Imrnunol ll8:543,2006. Nag'ayaN, Kang'ayaN, Kan
she lives has begun an awarenesscampaign to alert the population that it is now well established frequency of the MTHFR 677C>T gene variant and to educate residents about their options for minimizing any negative effects of having this variant. The prevalence of GERD in childhood is not entirely
clear but may range from about 20/oto 200/o(Craig et al., 2004; Gold, 2004). Dilution of formulas is not necessary. This device consists of a closed container in which a weighed food sample, ignited with an electric spark, is burned in an oxygenated atrnosphere. U.S. Department of Health and Human Services, U.S. Department of Agriculture:
Dietaryguidelines for Americans, 2005,ed 6, Washington,DC, 2005b,U.S. Government Printing Offrce. fd a.gov/medwatcV puteraccess to research ondietary lements National Centerfor Complementary and Alternative Medicine ./ CARDS_Database.aspx http://nccam.nih. Urinary oxalate also comes from endogenous s)'nthesis, and this is proportional.
to lean body mass (Massey, 2003). Maintaining a constant body weight is orchestrated by a complex system of neural, hormonal, and chemical mechanisms that keeps the balance between energy intake and energy expenditure within fairly precise limits. HF are over the age of 65 years (Hunt et al., 2005). Black womenhave the highest rates of H[
followedby blackmen, Mexican-Americanmen, white men, white women, and Mexican-Americanmen (lhom et al., 2006). DietAssoc DalyJM et al: Human energyrequirements:overestimation beneath the protective mucosal layer
and by significant ureaseproduction. A defect in the vitamin B6-requiring enzyme cystathionine B-qmthase prevents the conversion of homocysteine to rystathionine. When fasting plasma studies are done, chylomicrons are normally absent. Sibutramine is a combination of catecholaminergic and serotoninergic agents, which inhibit the reuptake of
serotonin and norepinephrine in the CNS to increase satiery, reduce hunger, and lessen the drop in metabolic rate that often occurs with weight loss. Transtheoretical Modelof Ghange The transtheoretical model (TM), or stages of change model, has been used for many years to alter addictive behaviors. Q)atafrom Miller WR, RollnickS,
editors: Motivational interviewing: preparing people for change,ed 2, New York, 2002, Guilford Prus.) 498 PART3 Nutrition Guidelines Support of the Trauma Patient http://r,v'ww. The low-calorie diet should be individualized lor
carbohydrates (5070 to 55% of total kilocalories), using sources such as vegetables, fruits, beans, and whole grains. Calculation A. Through educationalefforts the detection, awareness, and treatment of hypertensionhave improved over the 35 years sinceits inception. These changes have contributed to the mortality seenduring the same decline in the carbon and the c
information (education), addressing client concerns, providing dietary guidelines, correcting misinformation, encouragement, supporting a strong sense of self-efficacy, a client's belief in his or her
ability to carry out change, and providing social support. Formulas intended for use in renal and hepatic failure are intentionally low in specific vitamins, minerals, and electrolytes. Men may also developtype I osteoporosisduring adulthood if they have a significant decline in androgenproduction, but in practices uch cases are rare. This osteoporosisis
protein or potassiumintakeis of no benefitunless significal citonin; active vitamin D; and three effector organs: the cant uremia or hyperkalemiadevelops. When hypertengut, kidney, and bone. The role of the kidney includes prosion is present, it is related mainly to extracellular volume duction of the active form of vitamin D-1,25-(OFI) 2D3-as excess and should be active form of the active form of vitamin D and three effector organs: the cant uremia or hyperkalemiadevelops. When hypertengut, kidney, and bone. The role of the kidney includes prosion is present, it is related mainly to extracellular volume duction of the active form of vitamin D and three effector organs: the cant uremia or hyperkalemiadevelops. When hypertengut, kidney, and bone. The role of the kidney includes prosion is present, it is related mainly to extracellular volume duction of the active form of vitamin D and three effector organs: the cant uremia or hyperkalemiadevelops. When hyperkalemiadevelops is the cant uremiadevelops is the cant uremiadevelops. When hyperkalemiadevelops is the cant uremiadevelops is the cant uremiadevelops. When hyperkalemiadevelops is the cant uremiadevelops is the cant uremiadevelops is the cant uremiadevelops. When hyperkalemiadevelops is the cant uremiadevelops is the cant uremiadevelops. When hyperkalemiadevelops is the cant uremiadevelops is the cant uremiadevelops is the cant uremiadevelops. The cant uremiadevelops is the cant uremiadevelops is the cant uremiadevelops is the cant uremiadevelops is the cant uremiadevelops. The cant uremiadevelops is the cant uremiadevelops is the cant uremiadevelops is the cant uremiadevelops is the cant uremiadevelops. The cant u
be treatedwith sodiumrestriction (see well as elimination of both calciumand phosphorus. Active Chapters 33 and 34). These complexparticles, calledlipoproteins, vary in composition, size, and density (Thble 32-1). Over-the-counter chewable or liquid medications and vitamin preparations also may contain sugar. Betablockers . The client should be
 instructed to use the dosagecommonly recommended for that specific botanical; this should include guidance on locating credible resourcesfor obtaining this type of information. 850 PART5 | MedicalNutritionTherapy PoorDiet It is known that diet is the predominantenvironmental causeof coronaryatherosclerosis and that diet modification
unequivocallycan reducerisk of CHD. It is important to remember that fat intake does not translate directly into blood lipid changes because the body regulates macronutrient levels to provide adequate supplies of fuel to body tissues. The HeahbyPeople 2000 objective was to increase to at least 90% the number of people with hypertension who were
trying to normalize their blood pressure; this goal wasnot achieveds ince31% of subjects m NHANES m with high blood pressure erenal failure are 0.8 g/kg/day with 60% HBV for patients whose GFR is greater than 55 mUmin, and 0.6 gkg/day with
60% HBV for patients whose GFR is 25 to 55 mVmin (Beto, 1994). It is mainly used to make thyroid hormones, which help to regulate metabolic rate, body temperature, growth, reproduction, blood cell production, muscle function, and even gene expression. Individual dental nutrition risk factors tlat may contribute to oral disease are
areasthat can then be addressed in counseling the patient or client Nuuition and dietary management of the patient or client with periodontal disease follows many of the patient of the patient with periodontal disease follows many of the patient with periodontal disease follows man
lifting) Mowing lawn (power mower) I I 1.5 2.5 0 0 0.03 0.09 0.11 + .5 0 0 0.005 0.014 0.019 0.02 + 0.024 0.032 0.03 2.5 2.5 2.5 2.9 0.014 0.014 0.018 0.09 0.09 0.11 3.3 3.5 0.022 0.02 + 0.029 0.033 0.13 0.14 0.037 0.038 0.045 0.055 0.057 0.061 0.067 0.088 0.105 0.22 0.23 0.26 0.27 0.33 0.3 + 0.37 0.40 0.53 0.63 J 3.5 3.5 +.+ 0.t+
0.14 0.19 0.20 Leisure Activities: Mild Walking (2 mph) Canoeing (leisurely) Performing calisthenics(no weight) Walking (4 mph) + +.5 0.r 7 0.20 Leisure Activities: Wigorous Chopping wood Playing tennis (doubles) Ice skating Cycling (moderate)
                                                        ming Climbing hills (5-kg load) Walking (5 mph) Joggrrg (10-minute mile) Skipping rope +.9 5 5.5 )./ 6.8 7 7.+ 8 10.2 t2 Modified from Institute of Medicine of The Narional Academies: Dieury referenceinmkes merg6 carbohydrate, for ftler, fat, fatty acilts, protein, and amino acids, Washington, DC, 2002, The National
Academies Press. Always check Nutrition Facts on the food label. Anker SD et al: ESPEN Guidelines on Enteral Nutrition: cardiology and pulmonology evidence-based recommendations, Clin Nutr 25 311, 2006. The amount of oxalate diet is about 200 mg/day, higher than the traditional low oxalate diet, which provided about 60
mg/day. She lives with her mother (a single vices. Agencies that assist FEMA include USDA, Department of Defense, USDHHS, EPA, and General Services Administration. In Shils ME et al., editors: Modern nutrition in beahh ed 10, Philadelphia, 2006, Lippincott, Williams & and d. isease, Wilkins. Frankenfield Det al. Comparison of predictive equations for
restingmetabolicrate in healtiy nonobeseand obeseadults: a systematicreiew, J Am Diet Assoc105:775, 2005. Complications of delayedonset include varying degreesof mucositis, which is often severe and extremely painful, develops in more than 75% of transplant patients (Figure 37-2). Folling identifies
phenylpymvic acid in the urine of mentally retarded siblings. Clinical applications. Infections, other illnesses, hormonal changes, and some medications causenauseaand vomiting; small, frequent meals are useful;
serve liquids between meals instead of with meals to reduce fullness. The H. Because of its effects on blood pressure, phentermine is prescribed with caution in patients even with mild hypertension. 544 PART4 i Nutrition for Healthand Fitness Despite the recognition that modest weight loss is beneficial and may be more achievable, it has been found
that obesepersons have self-defined goal weights tlat differ considerably from the goals suggested by professionals. How concernedare you about expiration dates? For children and enjoyable meald meal, arger food portions at meals, tt2 rl99 4246, 1989. Hildebrandt GH, SparksBS:Maintaining
mutansstreptococci suppressionwith rylitol chewing grrn, J Am DentAssoc 111:909,2000. Atkins Foundation Jenkintorm, Pennsylvania P a m e lC a h a r n ePy h, DR, D , C N S D Consultant, Dietetic Internship, Nuuition Sciences Affiliate Clinical fusociate Professor Collegeof Pharmacy University of Washington Seattle, Washington;
AdjunctfusistantProfessor Collegeof Human Ecology SUI\ry Oneonta Oneonta, New York HarrietCloud, MS, RD, FADA Nutrition Mafters, Owner ProfessorEmeritus, Department of Nutrition Mafters, Owner ProfessorEmeritus, Owner ProfessorE
is also associated with lower BMD (Tircker et al., 2006). The major regrrlators are the ryrnpathetic nervous system (for short-term control) and the kidney (for longterm control). TraceMineralIntakes Relatively few studies are available about the effects of trace elements on bone. Heavy drinkers who consume 50"/oor more of daily calories from
alcohol may have a depressed appetite to the point of emaciation and even malnutrition; moderate users tend to gain weight with the alcohol calories added to their usual diet. These causes are generally classified into three categories: (1) inadequaterenal perfusion (prerenal): (2) diseases within the renal parenchyma (inuinsic); and (3) obstruction
(postrenal). Generally, if careful anention is directed at diagnosing and correcting the prerenal and obstmctive Gluses, ARF is shon lived and requires no particular nutritional intervention. KeysA et al. Basalmetabolism and obstmctive Gluses, ARF is shon lived and requires no particular nutritional intervention. KeysA et al. Basalmetabolism and obstmctive Gluses, ARF is shon lived and requires no particular nutritional intervention.
(NIH): Racial/ethnic oarrerns for cancer in the United States, 1988-1992. In Millei BA, et al., editors: SEERmonograpr, MH Publication No. 96-4104, Bethesda, Md, 1996, National Cancer Instirute. Wilt T et al. Serenoarepensfor benign prostarichyperplasia, Cocbrane DatabaseSystRn, CD001+23 2002. Salivary amylase breaks down the dietary
sugarsover time. Polysaccharides Polysaccharides Polysaccharides are carbohydrates with more than 10 monosaccharide units. Attention to vitamin and mineral supplementation, particularly calcium, folate, iron, and vitamin and mineral supplementation, particularly calcium, folate, iron, and vitamin and mineral supplementation.
psychologicalissue and so responds best to behavioral interventions such as relaxation uaining, guided imageryr, or systematic desensitization (Fessele, 1996). Methods to ensure food safety are important topics that should be discussed with patients. The degree of xerostomia may vary but may be caused by medications such as those to treat depression
hlpertension, anxiety, HfV, and allergies, to name a few CariesPatterns who consumed large amounts of luice showed a trend toward greater incidence of dental caries versus those who consumed milk or water (Sohn et al., 2006). Rules regarding eyecontactare usuallycomplexand vary according to issuessuchasgendeEdistanceapart, and social status.
Alterations in the coding region may affect the amino acid sequence of the protein, which in turn can affect the conformation and function of the protein. See Chapter 43 for a similar discussion was 135 lb, and his height was 5 ft 10 in. Sesa/soAthletes resistance protein
needs,596, 596b with osteoarthriris,1048-1049 with rheumatoidarthritis, 1052 exons definition, 144 extracellularfluid, 145 definition, 117 extremeobesity, definition, 124 extracellularwater, 145 definition, 144 extracellularfluid, 145 definition, 147 extremeobesity, definition, 148 extracellularfluid, 145 definition, 148 extracellularwater, 145 definition, 148 ext
definition, 2 in absorption, 13, 13f facultative thermogenesis, definition, 22, 26 failure to thrive (F-IT) definition, 22 in breast-fed infanq 191,193f in childhood, 237-238 in olderadults, 294 falls, prevention, in osteoporosis, 633 familial combined hyperlipidemia (FCHL), 8408 4 1, 8 4 1 t definition, 833 familial defective apo8-100,840t familial
dysbetalipoproteinemia, 841, 84lt definition, 833 familial hypercholesterolemia, 841, 84lt definition, 833 familial hypercholesterolemia, 841, family environment, food intake by children and, 230, 231f family history cardiovascular diseaseand, 852 Fanconi's syndrome, 927-928 fasting hlpoglycemia, 803
oenmuon,/u/, /o+ in cirrhosis, 725,725b in obesitymanagement, 548 in rheumatoidarthritis, 1051b fat-based fat replacers, 58t fat cells, development, 534 fat-freemass(FFM), 24 fat mass, 533 definition, 532 fa(s) absorption, 12-13 asfuelsfor contracting muscles, 590-591, 590f body, 533 percentageof, basedon skinfold measurements, 1216
coppercontent,716t dietary carcinogenesis and,963-964 in childhood,239 in medicalnutrition therapyfor diabetes,778 dietsvery low in, in obesitymanagement,549 essential,533 definition,532 fecal,in malabsorption,424 gynoid distribuion, 542 in medicalnutrition therapy,for cardiovascular disease, 854-858 andlipids fatty acidsin, 51-
55. See also Fattvacids functions. 50-51 structures. 50-51 structu
composition subcutaneous, +01, 402b, +02f, 403f assessment, fat-solublevitamins,68-82 in malabsorption, 424-425 summary,97-98t fatty acids,51-55 common,names,stmcture,and sources,54t essential,52-55 deficiency,55b definition, 40 nuffitional facts,1278-1279 families,55t in body weight regulation,537t in infant formulas,203t monounsaturated
definition, 41 in medicalnutrition therapy, for disease, 855-856 cardiovascular omega-3,52. See also Omega-6,52. S
medical nuffition therapy, for disease, 857 cardiovascular saturated definition, 41 in medical nutrition therapy, for cardiovascular disease, 855 short-chain, in digestion, 4,14b structures, 53f trans-,53-55 sources, 858t fatty liver, 713,714f definition, 707 fatty streak definition, 833 835, 816f formation of, in atherosclerosis, FCHL (familial
combinedhyperlipidemia), definition, 833 fecalfat, in malabsorption, 424 fecalsoiling, 675 feeding bolus, 514 definition, 506 drip, intermittent, 514 definition, 506 
introduction ofjuice, semisolidfoods, and ages, 217t tablefoods in, suggested self-selected diets, 217b semisolidfoods in, 215 serving size in, 218 skills in, development, 214, 214f weaning from breastor botde to cup in, 215 serving size in, 218 skills in, development, 214, 214f weaning from breastor botde to cup in, 215 serving size in, 218 skills in, development, 214, 214f weaning from breastor botde to cup in, 215 serving size in, 218 skills in, development, 214, 214f weaning from breastor botde to cup in, 215 serving size in, 218 skills in, development, 214, 214f weaning from breastor botde to cup in, 215 serving size in, 218 skills in, development, 214, 214f weaning from breastor botde to cup in, 215 serving size in, 218 skills in, development, 214, 214f weaning from breastor botde to cup in, 215 serving size in, 218 skills in, development, 214, 214f weaning from breastor botde to cup in, 215 serving size in, 218 skills in, development, 218 skills in, development
234-236 problems, in cirrhosis, 721 tirning and route, in metabolic stress, 1030, 1031f transitional, definirion, 506 feeding skills in Down ryndrome assessment, 1182 feeding strategies for infants with bronchopulmonary dysplasia, 906 for infants with chronic lung disease of prematurity, 906 in COPD, 908-
909, 909f in cystic fibrosis, 913,915-916 in metabolic stress, 1030 in respiratory failure, 917 FEMA definition, 309 in disastermanagement, 3[] females adolescentdevelopment, Tanner stagesof, 1212f athlete triad, 599 definition, 563,587 osteoporosis and, 628-629 daily food guide for, 177t dietary reference intakes for, 170t HIV and, 1007 fenfluramine,
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demise, intrauterine, definition, 160 fetus, energy restriction for, consequences, 172 FFM (fat-free mass), 24 FH (familial hypercholesterolemia), 839-840, 840t, 841t fiber dietary 47-50 carcinogenesismd, 964 definition, 40,47,673 in childhood, 241 intake, bone and,626 diet high in for consripation,6T6-677, 677b nutritional facts on, 1279-1281
digestion/absorption, 15-17 functional, 47-50 definition, 40,47 in calcium stone formadon, 953 in digestion and absorption, 49 in medical nutridon therapy for cardiovascular disease, 858 for diabetes, 776-777 requirements in adolescence, 251,252t, in pregnancy, 173 fibric acid derivatives, in cardiovascular disease management, 860t fibrinogen, as
inflammatory marker, 848 fibrornyalgia, 1060-1061 definition, 1042 medical nutrition therapy for, overview, 1044t Filipino food pattern, 356t fishoilpowder, microencapsulated, as DHA and EPA source, 1107 fistula definition, 673 repair, 700-701 5-HT. Most patiens who are not inhrbatedor who havetracheostomies will be ableto meet all or most of their
nutritional needsby mouth. On postoperative day 4 enteral formula at 20 r,;'l/hr,formula was started via the needle catheter jejunostomy with concomitant inrermittent nasogastricdecompression. By postoperative day 8 the jeju- CHAPTER 20 i Intervention: Enteral nutrition Support 529 nostomy enteral nutrition infusion was at 40 ml,/hr,
providing close to half the amount of protein and energy that Jerome required. However, there is no reason to recommend that persons with diabetes avoid fructose (ADA, 2007). Becauseneither successfirlprevention nor successfirlmanagement of lung
cancerhas been elucidated, the possiblerole of whole foods or their various components, or bounicals, in lung cancerinitiation, promotion, or treatment receivesworldwide attention (Lamben et al., 2005). The relationship between et al., 2005).
[email protected], 2005). applications. The expectationis that this type of detailed Another aspect of genetic research to nutrition knowledgewill lead to an understanding waysto preprofessionals is the applicability of the research to food provent disease and help peoplestay healthy. Risk of reflux is increased with hiatal hernia, reduced LES
pressure, tobacco use, increased abdominal pressure (as in obstructive lung disease), delayedgastric emptying, recurrent vomiting, pregnancy, or other factors. SandovalWM et al: Stagesof change: a model for nutrition Clin Nutr 9:64, 1994. See also Celiac disease definition, 673 gluten sensitivity, excipients and, 448 glycemic control for adults with
diabetes, recommendations for, 774t weight management, 776 ofselected foods, in diabetesm nagement, 776 ofselected foods, 1281 glycomic index (GI), 50 cancer risk and, 587 lactic
acid, conversion, 588 loading, 593 definition, 587 glycogenstoragedisease, I 163 glycogenstorage
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12 11 1326 Index growth charts (Continued) f o r p r e m a r u r ei n f a n t s , 1 1 3 3 - 1 1 3 5 , 1 1 1 3 f , r134f,r135-r136f in childhood, 224-225f growth hormone (GH) definition, 1021 for osteoporosis,632 human, ergogenic aid, 605t, 608-609 nutritional support in metabolic stress and, 1032 gro*th spurt definition, 246 in adolescence,248 GSH-Px
(glutathione peroxidase), definition, 40 GTF. Nutrition Counselor: Your feelings are normal. Stress Type A personality (time-urgent, impatient, and compulsive) and perceived stressare associated with increased CVD risk. Among the adult population prevalence ranges from about 10o/" in countries that have the resources to identifi., prevent, and treat
the disease to 80% to 90"/o of the population in developing countries. For people who have difficulty with self-selection or portion control, meal replacements (e.g., liquid meals, meal bars, calorie-controlled packaged meals) may be used as part of the diet component of a comprehensive weight management program. Other factors join to decrease
R.NIR and limit effectivenessof the restricred energyintake. Phytochemicals are active chemical compounds found in foods of plant origin that play a potential beneficial role in the prevention and treatment of disease. Some classes of phytochemicals include organosulfur compounds (allium); polyphenols, including flavonoids and isoflavones; and
terpenes, which include carotenoids. mild loss of renal function. Osteo' calcin, a bone-specific protein made by osteoblasts, requires vitamin K for its posttranslational carborylation (i.e., maturation). Providing oral or enteral feeding when possible increases GI vascular perfusion and stimulates secretion and motility. Unless otherwise contraindicated,
peoplewith TB routinely requireincreasedenergyinake andfluids. Providingaccess to food and also to high-calorie, high-proteinoral supplements is a less expensive, feasible medical obstructive syndrome (S0S) (it is also known asvenoocclusive
disease), and it is characterized by chemotherapy- and or radiation therapy-induced damage to the hepatic venules. Such patiens have intractable morbid obesity and should be considered for surgery. Krzywda EA et al: Parenteral nutririon accessand infusion equipment. USDHSS: Ninth Report on Carcinogens, Research Tiiangle Park, NC, 2000, Public
Health Service, National Toxicology Program. and increase high activity levels. fu starvation progresses, up to 97o/" of energy expenditure is from stored triglyceride. Any interruption of menstruation for an extended period results in bone loss. Acceptance facilitates change. Self-monitoring with daily records of place and time of food intake, as well as
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accompanying thoughts and feelings, helps identifii the physical and emotional settings in which eating occurs. Inflammatory markers, in particular C-reactive protein, have been shown to be elevated in patients with hypertension (Sesso et al, 2003). potentially increased compensation of the NSD. Nutrition professionals need to have a firm foundation
in genetics, the associations among genes, disease, and environmental influences, and the role of nutrients and other food components in the modulation of gene expression. 1965-1970: Sates adopt newborn screening programs to detect phenylketonuria (PK[I). Coffee . Kushi LH et al: The macrobiotic diet in cancer, I Nut I 3 I (suppl):3056, 2001. These
groupsareinexpensive, continuous, include a "buddy system," and encourageparticipation a regular basisor asoften asneeded. The Weight Watchersprogram 1-2 dzysaftersurgery Day 3-3 weeks after surgery 6 weeksafter surgery 6 weeksafter surgery 1-2 dzysaftersurgery 2 weeksafter surgery 6 weeksafter surgery 7 weeksafter surgery 8 weeksafter 8 weeksafter
goal weights. It harbors acid-forming bacteria and keeps the organic products of their metabolism in close .o.rt"it with the enamel surface. Minot GR, Murphy WP: Ti'eatmentof perniciousanemiaby specialdiet, JAMA 87:470,1926. The chapters in this section begin discussions of the fonnal nutrition care process, including an overview of nutritional
genomics, followed by chapters related to assessment of nutrition diagnoses; and interventions to solve problems or improve nutritional status. - Apéndice de "Dieta antiinflamatoria". Some of the programs are sensible and appropriate, whereas others emphasize fast results with minimum effort. Cohen MH et al: Emerging
credentialing practices, malpractices, malpractice liability policies, and guidelines governing complement to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and intervention will be the keys Nutrition assessment to preventing or liability policies, and the liability policies are liability policies.
mitigating the expression of diseases for which an individual is susceptible. Home nutrition therapy organizations, supplies, equipment, and professional clinical services to patients at home in accordance with standards developed by professional clinical services to patients at home in accordance with standards developed by professional clinical services to patients at home in accordance with standards developed by professional or ganizations. Micronutrient deficiencies of calcium and fat-
solublevitamins are also common (Radigan, 2004). Besides often being high in total carbohydrate content, these foods may also contain significant amounts of fat. ElicitingSelf-M otivational Statements The four communication strategies (asking open-ended questions, listening reflectively, affirming, and summarizing) are important when eliciting self-M otivational Statements The four communication strategies (asking open-ended questions, listening reflectively, affirming, and summarizing) are important when eliciting self-M otivational Statements The four communication strategies (asking open-ended questions, listening reflectively, affirming, and summarizing) are important when eliciting self-M otivational Statements The four communication strategies (asking open-ended questions, listening reflectively, affirming, and summarizing) are important when eliciting self-M otivational Statements The four communication strategies (asking open-ended questions, listening reflectively, affirming, and summarizing) are important when eliciting self-M otivational Statements The four communication strategies (asking open-ended questions).
motivational statements. Nutrition Screening Initiative (1{SI): T}e role of nutrition in cbronicdiseaseeare, Washington DC, 1997, Greer, Margolis, Mitchell, Burns and Associates. Reproduced with p ermission DC, 1997, Greer, Margolis, Mitchell, Burns and Associates. Reproduced with p ermission DC, 1997, Greer, Margolis, Mitchell, Burns and Associates.
solutions, choosing the best one, implementing the new behaviog evaluating alternative solutions if the one selected is not successful. The carbohydrate content of selected foods is given in Table 3-2. The goal is to use these realizations to set the stage for later efforts at dietary change. Garnishing is often overlooked but
makesa big visual rmpact. Let's talk about what you can do and eliminate those things that are too difficult at this time. HfV infection causes a progressive depletion of CD4+ cells, which eventually leadsto immunodeficiency, constitutional disease (persistent fever, night sweats, chronic fatigue, malaise, and diarrhea), neurologic complications, OIs, and
neoplasms(Box 38-1). Design a nutrition care plan to improve this youngster's dental health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion: Health and growth. U.S. Department of Agriculture, Center for Nutrition Poliry and Promotion Poliry and P
also called insulin resistanceand )Q, seeChapters9,30,32, and 33. PnocREssrvE NnruRE of Rennl DlseAsE A wide range of kidney lesions are characterized by a slow, steady decline in renal function. The combination of delayed emptying, decreased digestive secretions, and the recumbent position increases the
opportunity for prolonged reflux of gastric contents into the esophagus. areiew, J CardiwascNarc Horwich TB et al: B-qpe natriuretic peptidelevelsin obese patients with advancedheart failure. f Am Coll CardiwascNarc Horwich TB et al: B-qpe natriuretic peptidelevelsin obese patients with advancedheart failure.
patients retaining fluids, careful interpretation of both anthropometric measurements and biochemical indicators of nutrition status is necessary especially because the laner are depressed hemodilution (see Chapters 14 and 15). Goran MI et al. Energy requirements across the life span: new findings based on measurement of the laner are depressed by hemodilution (see Chapters 14 and 15).
 with doubly labeledw^te\ Nutr Res15:115,1995. In general, it is important to establish the interactive relationship before beginning the actual process futrition counseling. IJpstream from the 5-prime end of the promoter region is the regulatory region, where control of the transcriptional process takes place. Controledemaandserumelectrolytes
Formulas are provided by continuous infirsion through a nasogastric, gestrostomy, or jejunostomy tube, often while the person sleeps (see Chapter 20). Elemenal and nonelemenal formulas with enzyrneshave been used effectively. Enrymepowder can be addeddirectly to the formula and nonelemenal formulas with enzyrneshave been used effectively. Enrymepowder can be addeddirectly to the formula and nonelemenal formulas with enzyrneshave been used effectively. Enrymepowder can be addeddirectly to the formula and nonelemenal formulas with enzyrneshave been used effectively. Enrymepowder can be addeddirectly to the formula and nonelemenal formulas with enzyrneshave been used effectively. Enrymepowder can be addeddirectly to the formula and nonelemenal formula and nonelemenal
continue to increasewith age. A dramatic increase in hip fractures occurs late in life, and almost all women beyond 80 years of age areat risk of hip fracture. The primary sites are usually the bronchi, with pancreatic enzyme supplementation, the
water-soluble vitamins appear to be adequately absorbed in patients with Cf;, and requirements under normal conditions can usually be met by diet plus a standard age-appropriate multivitamin/mineral supplement; however, monitoring individual vanauons ls rmpoftant. Calle E et al: Overweight, obesity, and mortality from cancerin a
prospectively studied cohort of U.S. adults, N EnglJ Med, 148:1625,2003. Other surgical procedures are restrictive and cause malabsorption because they also prevent food from being absorbed from the gastrointestinal tract. Choose starches made with little fat as often as you can. @rom ThomsonCA, Newton T: Dietary supplements: eaaluation and cause malabsorption because they also prevent food from being absorbed from the gastrointestinal tract.
 applicationin clinicalpracticeTopics Clin Nutr 20(1):j2, 2005, in FruitsandVegetables Garotenoids Neoxanthlns Egg yolk Maize (corn) Kiwi Red seedless grapes Zucchini squash Pumpkin Spinach Orange pepper Yellow squash Cucumber Pea Green pepper Red grape Butternut squash 8 9 18 Lutein and Zeaxanthln Lutein 54 60 54
Zeaxanthin 35 25 0 l0 Clyptoxanthins Lycopenes p4arotene 0 0 4 0 0 5 0 0 0 + 3 5 9€arotene 0 0 8 t6 L) 89 86 54 5l t9 52 47 5 2+ 0 0 5 l0 l4 ^ 49 47 45 49 47 8 0 0 37 0 t9 22 0 4 0 0 0 8 2l t6 2l t9 t6 33 29 44 0 4 0 3 0 38 2l 20 0 0 0 0 9 +T 39 44 38 +I 36 5 t2 27 17 37 l3 37 4 0 29 34 0 0 I 5 6 0 1A az +) + APPENDIXES I29I Garotenoids in
FruitsandVegetables-cont'd Neoxanthins Orange juice Honeydew Celery (stalks, leaves) Green grapes Brussels sprouts Scallions Green lettuce Tomato juice Peach Yellow pepper Nectarine Red pepper Tomato Luteinand Zeaxanthin Lutein Zeaxanthin 20 18 2 Gryptoxanthins
Lycopenes F-Calotene p-Garotene 25038 00048 0 1 13 40 28 18 t2 35 35 34 l0 20 31257 29272 32 27 36 3 22 29 25 227 22 20 52 33 0 20 86 18 15 13 3 t5 0 1 35400 42015 |21181 490027 2313517 5 L2 t6 0 2 8 0 36 2 8 I 6020 0 57 01050 010 6 6 23 2 0 0048 8243
82012 22 t9 z t5 n + 16 12 0 16 (frui0 Carrots Cantaloupe Dried apncots Green kidney beans o 04355 3087 0087 Thble from Sommerburg O et al: Froits and vegetables that are sources for lutein and zeuanthin: the macular pigment in human eyes, Br J Ophtbahnol S2:907, 1998. The DV for nagnesium is 400 mg The %DV listed on the Nutrition Facts
panel of food labels states the percentage of the DV provided in one seming. &a1) areness, with permission @.eprinted from Haijar I, KotchenTA: Trendsin preaalence, treatTnent in the UnitedStates, 1988-2000, JAMA 290:199, 2003.) and controlof hypet'tension 868 PART5 I Medical Nutrition Therapy nately effective screening and lifestyle modification
 approaches are available to achieve this objective. The TM describes behavior change as a process in which individuals progress through a series of six distinct stagesof change, as shown in Figure 19-1: (1) precontemplation, (2) contemplation, (3) preparation, (4) action, (5) maintenance, and (6) relapse (Prochaska and DiClemente, 1982, 1984, 1986;
Prochaska et al., 1992, 1994; SigmanGrant, 1996) (see Clinical Insighf: Stagesof Change). Basalmetabolic rare 5. Within a month after conceptionpulmonary system structures are recognizable. NurRrrroN UPPoRT rN Long-Term Care Long-term care generally refers to skilled nursing facilities.
 Renal tubular acidosis (RTA), a defect in tubular handling of bicarbonate, can be caused by either a proximal tubular defect (type 2) or a defect in the distal rubule (type 1). Finney SJet al: Glucosecontrol and mortality in critically ill paaents, JAMA 290:2041, 2003. Clumps of B-amyloid and neurofibrillary tangles. On postoperativeday 12 the
endotrachealtube was removed because Jerome had been successfirly weaned from mechanical ventilation, J HeartLung Thanplant Hanninen SA et al: The prevalence of thiamin deficiency in hospitalized patients with congestive heart failwe, J Am Coll Cardiol 47:i54,2006. Verbal components of listening include keeping the focus on the
client by demonstrating a willingness to listen. Those with these syndromes often have feeding difficulties and require the assistanceof a knowledgeable nutrition professional. Since 3 basescode for I amino gene(3000bp) will acid, the protein codedby an average-sized is thus a seriesof code The genetic acids. Stool fat collection unavailable:DER: TEH
(0.9310.85)(approximatevalue of 0.85 may be used in the calculation; if possible, obtain fecal fat collection reveals that CFA: 78"/" of intake. Other Natlv€ Foodg
 Brovrr sugar, I cup Blackstrapmolasses,I Tbsp Regularmolasses,I Ttrsp Oolichan,salted,cooked,3 oz Fish headsoup, I cup Indian ice cream(whipped % cup soapberries), 180 t70 404 t8 t7 285 269 28.5 26.9 Aslan Foods Seacucumber,fresh,3 oz Soy beancurd slab,spiced, semisoft,3 oz Milligrams per Servlng % Dally Value* r67 140 16.7 14 t4 7.6 7 6.9
Aslan Foods-contu Nondalry Drlnks Calcium carbonate is the most common and least expensive calcium supplement. Alcohol Alcohol
(ethanol) intake at high doses (more than two drinks a day) has adverseeffects on the skeleton (Kanis et al., 2005). Fruit drinks, sodas, ice teas, and other sugar-sweetened beverages; dessefts; cookies; candies; and cake products may be cariogenic. Miller LW, Missov ED: Epidemiologyof hean failwe, Cardio Clin 19:547.2001. +.What other
dietaryhealth-related advicewould you give Nan? Educationalefforts shouldbe positive and simple, focusing on oral hygiene habits and promotion of a balanced, healthydiet. The reactions are not reversible. Glycogen is catabolized by a highly controlled phosphorylase. all others not listed on high or moderate list Fats and oil Lamb; pork; pheasant; quail;
duck; goose; squid; salmon; all organ meatsincluding liveq heart, kidney, brain; all shellfish, including oysters, scallops, shrimp, lobster, clams, and crab; meat gelatin; soy protein meat substitutesrtofur all nuts and seeds Avocado Olives (2 medium); cream (Vzc) Milk Chocolate, cocoa, soy milk Butter, cream, margarine, mayonnaise, nondairy cream
substitutes, oils, sour cream, salad dressings (made from allowed ingrediens), all other sources, milk flavored with carob Food Groups Meat and meat substitutes From Pemberton CM er al: Mayo Clinic diet manual: a handbook for nutrition practices, ed 7, St. Louis, 1994, Mosby. All persons working with
body fluids should use universal precautions to protect both themselves and others. Tieatrnent of 1L pylari ameliorates the gastritis, improves digestive function at least equivalent to the DRI should be provided. Given a daily fixed solute load of about
600 mOsm (the solute load representing the end waste products of normal metabolism), the kidney can get rid of as litde as 500 ml of concentrated urine or as much as 12 L. In Canada, Health Canada is the agency responsible for Canadian dietary recommendations and food labeling regulations. aaium complex or M. Young overweight maleswith low
bone massmay also suffer fracfures (Gouldinget al., 2005). It is recommended that total fat be 250/" to 357" of total energy, and saturated fatty acids less than 7%". Intake of trans-fat should be minimized or eliminated (ADA, 2007). Children whose BMI is greater than the 85th percentile are 6 times more likely to be overweight later (I{ader et al,
2006). SeealsoMinertls requirements, of cancer patient, 97J vitaminlike factors as, 100-102 vitamins as, 68-102. Throughout the life span, diet and nutrition continue to affect tooth, bone, and tooth longevity, Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aqt uI suol aruqdsoqd pue unrJIEJ qtog 'spooJ gcrJ-unrJ -lBJ .4de;eqr Jo s8ul,r:asiance to infection; and tooth longevity. Jo oner aquance to infection are unrable to infection are unrable to infection are unrable to infection are unrable to infection are
q8noua lJalas 01 apeu sr lJoJJe snorJsuoJ e ssslun PeunsuoJ lou aJE tunlJIBl Jo slunotuB ateuorrrodord '(9002 ''ye ta uos-rapuy) sJeJntJEJnuBru poo; ..(q Surssacord ur pesn slles snorre.t dq pepp -ord ere spooJ ur salegdsoqd er{t Jo esnsJ teql "uapp1q, -aq raq8rq ue^a eq letu satutg pelrull aql ur e>l?lur sru '(saleruroJ -oqdsoqd 00tI or 00ZI pue
selerueJ IEnrrE er{J rlnpe roJ lepftu 00ZI or gggl dlqSnoJ ''a'l) ereqdsoqd esre^p' u*u'rr^uosrre,+a reuos,es ff:r::llr#li,Hr* arou sdeqred'(9002''1ete uoqoef) oqaceldSurrrrecar esogJ Jo lunotue ]uetsuoJ JaqtEJe sepr,rordSunea;o ne eldurrs eqa dlddns pooJ aqr ur elq?lre^eos tou sr tuntJler seeJer{,r\ pue ueruo,ttlesnedoueunsod peleat
uee.trleqruere3grp.!pc 'spoo; 'CWg saa.ordrur -nsnets r(pq8qs(urun ere sarnlJs { tou tnq 11e dllecncerd ur elqelreae ere srps areqdsoq4 urnrcpc;o tueurelddns., {rep a)lBlulalPqdsorld 00t) C urruetrl pue (3u gggl) e Jo uoneurquor aqa '(srce(qnsplordqre:edrad, {qdpap -1a3o a8etuacradleurs E ur lrrurTsrqr puodeq,(lqrssodro) e8ue;leruroua {rJo pua
raddn agr le srtr uag,nHIdJo uon -EJfuaJuoc Suneyncrrc agl eJnpeJor eldoaddlrepleot ragreS -ot ue.rr8uauo aJBstuarualddnsC urruelr pue unrJIeJ 'dH pue (pu -rds) eergeue,r;o seSuegrCWg egr snld HJd ".Ir pue (I uFu -err-rdxorpdq-Szturues ur se8urgc l?uoseasogr selsrsnllr g-97 arn5rg 'sapntneldl.rerp:ouur 8ur.tqsrlnpepue uerplrqJ;o
suouelndodragro ro; perrodaruaaq e Eq $lnseJJslrurs 'sqtuoru Jelul{r aqr ur.{gercadsa'ayqruosear rueos $uaruelddns q unuelra pue unrJIBJ groq 'etrnbepe eq lou.{eu sa>1etur runtJIBJ aJer{nd. Hemochromatosis is a genetic disorder that affects the regulation ofiron absorption. htm, accessedDecember l, 2005.. Engeli S, SharmaAM: The renin
angiotensinsystemand natriuretic peptidesin obesity-associatedhypertension, J Mol Med 79:21,2001. ResnicowK et al: Resultsof the Healthy Body Healthy Spirit Trial, Healthy Spir
12: very ready to change)." At this point the intervention becomes very specific to the readiness exist: (1) not ready to change; (2) unsure about change; (3) ready to change described in this chapter to assist the counselor in
determining the level of client readiness. suessand anxiety, HealthCommunication Van WieringenJCM et al: Intercultural communicationin generalpractice, Eur J PublicHeahh12(1):63-68,2002. These include burning mouth slmdrome, periodontal disease, candidiasis, dental caries, and xerostomia (Mattson and Cerutis, 2001). SeeGlucose-dependent
insulinotropic polypeptide girdles, high-protector, in osteoporosis, 63 3 GI tract. Higher amounts of protein, 1.6 to 2 g/kg, are required in cases of increased needsuchasfever, infection, and increased surgicalor traumatic stresses. A moderate sodium restriction (80 to 100 mEg/day) during this period minimizes fluid retention and helps to conuol blood
pressure. After this time protein intakecanbe decreased to I gAg, and calorieintakeshouldbe at a level sufficient to achieveand maintain an appropriate weight for height. polyrners, often linked with an initial glucose. HfV medical nutrition therapy seruicesare now mandated through the Ryan White N H 48.7 MA 152.8 RI 126.9 CT 2 2 1. In addition to
nutrition and physical activity, key components of the typical behavior modification program include self-monitoring, goal setting, stimulus control, problem solving, cognitive restructuring, and relapseprevention (Berkel et al., 2005). This phenomenonwasfirst noted in mice and has subsequently been reported in humans (Gyllenstenet al., 1991).
Schwartzand Vissing, 2002). Aggres- sive administration of nutrition, particularly via the intravenous route, can precipitate the complication known as refeeding syndrome with severe, potentially lethal electrolyte fluctuations involving metabolic, hemodlmamic, and neuromuscular problems. Dysphagia secondary to surgical interventions, radiation
therapy-induced inflammation of the esophagus, or mucositis from chemotherapy involving the oral and esophageal tissues can be lessened with the intake of foods that are soft or liquefied and served at moderate or room temperature. elqe3-w unoqs eft srlnpedq uuarnnu peteler-euoq pu' Iunlrl'cJo se>l'lure{] roJ t"to"|Trt"H:fqur* IEreAes perroddns]ou
a^Bgslueuodruoc&erarp aseqrJo suoneSn -salur tsorr tnq 'uaruJeplopue ueruo^\lesnedouauDsod ur lrrsuap pue ssgrueuog a,rordurrot pezrseglod, {quaaq e,req g unt3lpJ { 1r;rq el r en eo t 'IV tuoJJnJ etp saqceorddr reqr e{Elur IuuJIeJ dpep luelsrsuoJ edq rau eq rseq f,t- 0Z e8e ero;eq perurre
CIWS q surcS etp Suldaa>1rrgt d1a>1g aroru sruees lr tnB 'srsorodoalso tsure8e uopcelord ralel olur etBISuBrt detu (sreed aSeuael ''e'l) aJII dlrea Suunp ruarualddns runrc -ltr B ruo.rJ Sunpsar CWg ul urc8 reaf-1 Jelrq B re{req.r\ 'auole sluaualddns Jo sururueJ IIps uopsanb egt snqa runrJleJ urog CIWS ur sureS due urelureru ot dpualsrsuoc
paunsuoJ oq ol paau se{etul req8g erp lerp lsaS8ns suoda: esar{J'sdnor8 atpJo senp^ ut?ru erp ot >lJBqpauo IoruoJ -ar sdno-r8 peteerl et1l Jo senle CIWfl ueetu erIJ unrrler go sruaurayddnsJeWrry tnoqlftr. Fistulas are often made near the wrist, which greatly enlarges the forearm veins. Korchazhkina O et al: Effects of exclusive formula or breast
milk feeding on oxidative stress in healthy preterrn infants, Arch Dis Cbild 91.327,2006. NAL OTIVATIO Avoiding Arguments are counterproductive. "Dont drink your calories." Keep the "extras" to no more than 200 kcal per day. multiple vitamins and supplements are counterproductive. "Dont drink your calories." Keep the "extras" to no more than 200 kcal per day. multiple vitamins and supplements are counterproductive.
her cancer recurrence risk and managing treatment-related side effects and postrnenopausalrymptoms. These two desirescan decreasethe time left for active listening. flammation, endothelialdysfunction, thrombosis, and I'ulet al., 2006). In metabolic studies in which energy intake is maintained so that subjectsdo not lose weight, diets high in either
carbohydrates or monounsaturated fat lower LDL cholesterol equivalendy, but the concern has been the potential of a high-monounsaturated fat diet (Garg et al., 1994). It focuses on restructuring a patient's environment to
reduce those behaviors or habits that contribute to obesity. Michael continued to run a fever and was often treated with a cooling blanket. Suchindividualsmay need800 to 1000units of vitamin D, especiallyin winter months, but their serum 25-hydroxy vitamin D, especiallyin winter months, but their serum 25-hydroxy vitamin D, especiallyin winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months, but their serum 25-hydroxy vitamin D, especially in winter months and especially in winter months are serum as a ser
toxic reactions(see earlier discussion). 2. r Dialysis Kidrcytransphntation lmmunosuppressant drugs PsycholoSh support Gometrativetreatrmntanderentualdeath . At this point the goal is to produce a change in the problem area. FEMA identifies food and water needs, arranges delivery and provides assistance with temporary housing and other
emergency ser- V oo are employed as a health professionalin a community I center. MB has been referred to you to discuss the results ofher pregnancy sers, which reveals that she is 6 weeks' pregnant. Experiment confounding variables
thus yielding conflicting resuls. This is generally quite well tolerated by the patient, except when intercurrent illness occurs. Formulaprogression goal: () ScheduleC: Tube FeedingProtocolVia GravityBag 1. A diet high in simple sugarwith small, frequent meals . For example, neither the morbidly obese nor the gynoid types will be able to maintain a
large weight loss. aprn5rueuralddnsTsuonrpuocT8ro's 3ro' snrrqlre',tr,trrr'l sl]lrl,luv uollepunol 3r o'13 oloteruneqJ',t!t\rn umlrauv ,i6ololeunaqu lo aballoC 'rpleequuer-8uo1sTtl Pue e ol tuFI srrqeqSuneasrga,rordurrdpq or uepperyperelsr8ar 'aullr poJreJal seq uerclsr(qdsIH PUBJeeq eluo^BJ slq lpIA spualee^l arF uo e81npq ot se4TIrnq P?oJarF uo
s.aqueq r a{s}w IogorF slq srrtul eH 'sleaul srqJo Isou roJ s}rrBrnElser uago uo seller pue spoued pePuarxeroJ euoq ruor; de.a,ru 'rno8 rpt,$ sr aq snlp teaup 4cnrr peq-8uol e sI o11 Pesou -8urp ueeq dpuacer sErIPue selaqulP;o &orqq dpue; e pue uorsuauadlq seq eH 'ql 052 sq81e,ro. LosadaF et al: Effectsof human recombinantsrowth hormone on
donor-site healing in burned adults, World J Sarg 26(1):2, 2002. Therefore, if a specific type of small bowel accessis not available for enteral nutrition, parenteral nutrition may be the only realistic option. Individual taste preferences vary widely, and normal taste is altered by certain drug therapies, most commonly chemotherapy. Physical activity has the
most impad on a person's energybalance, usually due to the energyexpended during activities of daily li"itrg. The Friday night meal is the most special of the week and usually includes fish and chicken. Phytic acid or phytate, a six-carbonring with phosphate bound to each carbon, is found in the seedcoat of grains and legumesand has the ability to bind
metal ions, especiallycalcium,copper,iron, and zinc. Nutrigenetics concerns the study of how an individual's particular genetic variants affect function. This will depend on overall treatment decisions and likelihood for tolerance of enteral feedine. Moist cooking causes the granules to swell, gelatinizes the starch, softensand ruptures the cell wall, and
makesthe starchmuch more digestible, primarily by pancreaticamylase. However, some starch remainsintact throughout the cooking processor recrystalizesaftet cooling and resists enz). mebreakdown. This resistant starchyields limited amounts of glucosefor absorption. Recendy liposuction is being used as more aggressive treafinent of obesity with as
much as 50 lb of fat removed using an incision and removal of the fat on the abdomen followed with a "tummy tuck" and removal of excessskin. pur 'panaySeu sr SuFea 'srarpo rod 'paseeJour eq deur Surced qtl$. (Frun U.S. Departmentof Energ; Human Genotne Program: www.unl. Fermentable carbohydrateseaten sequentiallyone after another
 promote demineralization. With a gastric ulcer, hemorrhage and overall mortality are higher than with a duodenal ulcer. Xylitol is a five-carbon sugar that cannot be metabolized by oral bacteria. Higher calcium dosesdid not result in further reduction (von Unruh et al., 2004). Barriers to adherence need to be investigated and remedied. Senkal M et al.
Preoperative oral supplementation with longchain omega-3 fatty acids beneficially alters phospholipid fatty acid patterns in liver, g'ut mucosa, and rumor tissue. JPENJ ParenterEnteral Nut 29:236,2005. Therolimus, Thymoglobulin, and Atgam are also used. gov/ References American Dietetic Association: Position of the American Dietetic Association of the American Dietetic Associati
Association: vegetarian diets, J Am Diet Assoc97:13t7, 1997. fEnergy and protein requirements are disease HIV encephalopathy, 1006 definition, 991 Hivid (ddC, zalcitabine), nutritional complications, 1002t HIV wasting syndrome, 1008
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out a day's schedule to include mealtimes, medication administration times, and activities of daily living. Feedings can be administered by bolus injection or intermittent or continuous infusions (see "Administration" later in this chapter). ling blood pressure a major preventivestrategy for HF et al., 2002). In the gold standard, randomized-controlled
uials of vitamin supplemenrarion, a causal relationship was not proven. Pharmaceutical advancemens have improved the medications available. ol PerreJersluenedfq serdereqrl?rrPeur erS1er(urorgg e^Deuretlepue lreluauralduroc; o esll: F re T(relPaoU-reuqe1\' V00Z'Zlt 6t sptdtT'uottuaterdaseasrp uonetuauraldunsPIoErruIIoJro clloJJo lre3Jg: lBre
gV ePg ue1 '0007'Lst97 tu7 ullC sre runaq['sreprosrplerela{solncsntuJo} lueuDearl N 'sreuSeru sPlegcneuSeurorcalg:HC {ro[ PuB leuone8nsa,rul .IOOZ 'Stfi6s aay 4nN'snrrfue Plolerunelfluo g uru?lr Pu?Io '5 qsg SururetuorslerPJo srragg :S u?rleqow 1qorlrqa;4-'tlopta '2007'Ltql Mnaqysnuquz ^PnlsPellorluor -oqeceld'puryq-elqnope :snlrlpr? 0 r a
fruits and vegetableswith nonfat dairy foods and nuts incorporated have all been shown to lower blood pressure. See Eating disorders definition, 246 risk, in adolescence, 257 restrictive, in childhood, 567t sequence/frequency, cariogenicity of food and, 64l eating behaviors current, assessment of, in motivational intervention
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lactose intolerance during her early '50s when she had a serious gastrointestinal infection. In all persons, blood glucose levels decline gradually during exercise, and ingesting a carbohydrate feeding during prolonged exercisecan improve performance by maintaining the availability and oxidation of blood glucose. Paton M et al: Randomizedcontrolled
trial of nutritional supplementationin patients with newly diagnosed tuberculosis and wasting, Am J Clin Nutr 80:460,20M. For children older than 7 years, prolonged weight maintenance appropriate if their BMI is between the 85th and 95th percentile and if they have no secondary complications. Total parenteral nutrition was discontinued as Michael
continued to tolerate enteral nutrition. StrassburgS et al: Muscle wastingin cardiaccachexia,lzrJ BiocbnnCellBiol 17:1938,2005. Korsakoff's psychosis presents as an amnesia, a confabulatory mental disorder in which retentive memory is significandy impaired in comparison to other cognitive functions. Well-planned vegetarian diets are safe for
infants, children, and adolescents and can meet all of their nutritional requirements for growth. Previous exercise recommendations for health called for 20 to 60 minutes of moderate- to high-intensity endurance exercise performed three or more times weekly. Beyond minimizing or preventing disease is the potential for maximizing human potential
not reimbursed by third-party payors (e.g., insurance, Medicaid), lack of knowledge of preventive dental care. Cor pulmonale (right ventricular enlargement and failure of the heart) develops late in the course of the disease. Relapse: If relapse ocqurs, the individual's usk is to staft the change processagain rather than become stuck in this stage
Intellectual function 'Speech . Risk of transmission through oral sex is considered low but not riskfree (CDC, 2001c). includes the resumption the individual sergular diet. In addition to the physiologic benefits of exercise are the relief of boredom, increased sense of control, and improved sense of control sense of c
blood, semen, presemenal fluid, vaginal fluid, vaginal fluid, breast milk, and other body fluids that contain blood. Goodstine SL et al: Dietary @-3)/(n-6) faty acid ratio: possible relationship to premenopausalbreast cancer risk in U.S. Women, J Nutr 133:1409, 2003. Various prebiotics, especially FOSs, variably stimulate the growth of
intestinal bacteria, principally bifdobacteria. In a healthy person 80o/oto 90% of nonabsorbable carbohydrate is fermented by colonic bacteria into carbon dioxide, hydrogen, methane, and short-chain fatty acids (SCFfu) (Cummings et al., 20011. Make sure that the patient or caregiver can demonstrate understanding of the feeding process by either
explaining it or by doing it. Minneapolis, M
Behavioral Medicine Research Center Boise, Idaho l { a t h yf l a m m o n dM, 5, R N, R D, L D, C N S D Coordinator, Continuing Education Clinical Nutrition Specialist Chartwell Diversified Seryices, Inc. If conversation extend
beyond the designated time for the session, the assessmentsteps should be completed at the next session. The stage of readiness for change should be completed at the next session, the assessmentsteps should be completed at the next session. The stage of readiness for change should be completed at the next session. The stage of readiness for change should be completed at the next session. The stage of readiness for change should be completed at the next session. The stage of readiness for change should be completed at the next session.
glucose, lipids, and a mixture of essential available, calorieneeds should be estimated at 30 to, lo kiloamino acids. This reduces the protein catabolism urea caloriesper kilogram of dry weight per day. Excessive caloproduction to a minimum until the patient can tolerate rie intake can lead to excess CO2 production, depressing or all the patient can tolerate rie intake can lead to excess CO2 production, depressing or all the patient can tolerate rie intake can lead to excess CO2 production, depressing or all the patient can be a support of the patient can be a support
feeding. Maintenance:During this stage, the challenge is to susain the change accomplished by previous action and to prevent relapse. Goodwin CW: Parenteral nutrition; ed 2, Philadelphia, 1993, Saunders. Each gene in an individual is present in two copies
(alleles), one on each chromosome. I S O R D E R SO F T H E S T O M A C H Indigestion and Dyspepsia Pathophysiology In its broadest sense dyspepsia refers to persistent upper abdominal discomfort or pain. Her food recall is as follows: 7:30 tu 7:45 ru 8:00eu 8:15 er'l 10:00au 1 banana Vzlargecantaloupe 2cwatermelon 1 banana and 1 apple 2 bite-
size chocolate mint patties J\ athan, a 3-year-old black male, is brought to the local I U health clinic by his crandmother becausehis front teeth are "turning black." N"'th"., seems small for his age; his height is measured 35.5in., and his weight is 25 lb. If supplements are used, the effects on LDL cholesterol should be monitored. Monitoring of
metabolic tolerance is critical to parenteral nutrition therapy. www.epa.gov/ost/fish FEMA http://www.foodsafety. It describes the relationship between these two components; a statement lacking either one of these components does not meet the regulatory definition of a health claim. In Ellion L et al,
editors: The dinieal guide to oncolog nuf, rition, ed 2, Chicago, 2006, American Dietetic Association. The enormousenergy requirements and expendinresof the tubules in performing the work of activesecretionand resorptionleavethis pan of the kidney particularlyrmlnerableto ischemicinjuries. High local concentrations of many toxic drugscan destroyout the concentration of the kidney particularlyrmlnerableto ischemicinjuries. High local concentrations of many toxic drugscan destroyout the concentration of the kidney particularlyrmlnerableto ischemicinjuries.
damagevarioussegmensof the tubules. Finally, the high-solute concentration generated in the medullary interstidum exposesit to damagefrom oxidants and precipitation of calcium-phosphateproduct (extraosseous calcification) and favorsthe sickling of red blood cells in sicklecell anemia. Fermentedalcoholic beverages (such as beer and wine)
stimulate the secretion of gastricacid and may compromise GI protective mechanisms. Chewing gum has been shown to increase salivary secretions, which help to raise esophagealpH, but no studies have demonstrated its efficacy when compared with other lifestyle measures. Parenter alnutrition is the provision of nutrients intravenously. If blood glucose is
chronically higher than this range, damage to cells and systemstakes place, as it does in patients with diabetes. Glucose homeostasis (equilibrium) is controlled in the fed and fastedstatesrhrough actions of hormonesthat store, release, or oxidizeglucoseasneeded. orgIModules/burnmetabolism./ pt2/index_nutrition.htm BurnSurvivor Resource Center
www. Liquid nutritional supplements may be considered for individuals unable to consume sufficient energy and protein to maintain their weight and optimal nutrition status (seeChapter 20). A large multicenter trial, Modification of Diet in Renal Disease, attempted to determine the role of protein, phosphorus restriction, and blood pressure control in
the progression ofrenal disease.fu a result of this and other related studies, the National Institutes of Health convened a conference to develop recommendations for the management of patients with progressive renal disease or pre-ESRD. SeeOsteoarthritis OAS (oral allergy
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CD4+ cell count in blood is the common laboratory test used. The virus also residesin other distinct compartments, such as semen, vaginal secretions, the lyrnph system, and the central nervous system (CNS), and evolves independently. When patients in undated with nuuition-related CAM therapychoices, food and professionals can provide
soundguidancefor informed decisionmaking. Healthy younger and older men of normal weight consumed a typical diet and performed usual activities. EnteralNutrition, prolonged anorexia, mechanical obstruction, or treatment-related toxicities (e.g.,
dysphagia, odynophagia, or mucositis), other more aggressive routes of nutrition support need to be considered. t9r -r=hr trN=r o< .? Furthermore, protein does not slow the absorption of carbohydrates (Nunall et al., 1984), and adding protein to the treaffnent of hlpoglycemia does not prevent subsequent hypoglycemia (Gray et al., 1996). In patients
with type 2 diabetes who are still able to produce insulin, ingested protein is just as potent a stimulant of insulin secretion as carbohydrate (Gannon et al., 2001; Nuttall et al., 1984). *Represens recommendeddaily intake. first step?" What is a reasonable A c t i o nP l a n Following goal setting, an action plan is set to assist the client in mapping out the
specifics of goal achievement. In one type ofresistance the client contests the accuracy, expertise, or integrity of the nuuition counselor. fu examples, liquid or powdered milk, yogurt, tofu, or protein powders can be used to enrich cereals, casseroles, soups, or milk shakes. Take your time to think about it. Although methods of nutrition support can be
standardizedfor the course ofcertain diseasestates or treatments' it is important to note that every patient presents an individual challenge and nutrition support must often be adapted to unanticipated developments or complications. ']BJ 'loretseloqc Jo uorlJnpor f-reierp tncco saop o>lors ecuq '(9997 'l(If,) slsoc euoq Sursmu ur uorTlrq ZI$ 8ul
pnlrur 'qrp"r{ pue lryrFcnpord rsoyur uorTlrq I Sg peletur1se Ig0T 'a>lortscrueqJsr uerp eJuersalt^uoJ;o porred reSuoy B s?q eJoJeJeqtpue secuenbasuoJ leuortJury eJalas eroru seq dluoururor 'I{VS ,(yrelncn.red ,a8eqrroua11 ddereqr .suoque^Jalu1 pcf 1o tuauodruoc de1 B sr uor1elrTrqeqe1 -JnsoJneu Jagto Jo 'e8eure:p JEInJrrueA ,poolq
IBruBJJBJlur Jo seunlo^ eSruy;o uortenJela pcrSrns apnlJur .{eur sqa 'e8rqrrotuaq Fruerrertur roJ tuaurtee4 arp sr urerq e{p Jo uorsryred tuerJgJns Sururelureu alTr{r\ dll Suqyorluo3 dle,tnruyap pelerlsuouep uaeq ral lou seq sseu -e^rtJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo eq .,(eruurrrdse Jo esll 'sruoldur.f,sJo tasucoren tuerJgJns Sururelureu alTr{r\ dll Suqyorluo3 dle,tnruyap pelerlsuouep uaeq ral lou seq sseu -e^rtJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo eq .,(eruurrrdse Jo esll 'sruoldur.f,sJo tasucoren tuerJgJns Sururelureu alTr{r\ dll Suqyorluo3 dle,tnruyap pelerlsuouep uaeq ral lou seq sseu -e^rtJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo eq .,(eruurrrdse Jo esll 'sruoldur.f,sJo tasucoren tuerJgJns Sururelureu alTr{r\ dll Suqyorluo3 dle,tnruyap pelerlsuouep uaeq ral lou seq sseu -e^rtJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo eq .,(eruurrrdse Jo esll 'sruoldur.f,sJo tasucoren tuerJgJns Sururelureu alTr{r\ dll Suqyorluo3 dle,tnruyap pelerlsuouep uaeq ral lou seq sseu -e^rtJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo eq .,(eruurrrdse Jo esll 'sruoldur.f,sJo exlandar tuerJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo eq .,(eruurrrdse Jo exlandar tuerJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo eq .,(eruurrrdse Jo exlandar tuerJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo eq .,(eruurrrdse Jo exlandar tuerJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo eq .,(eruurrrdse Jo exlandar tuerJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo exlandar tuerJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo exlandar tuerJaJJe$r lnq 'sJuale TEInJSBAoJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo exlandar tuerJaJJe$r lnq 'sJuale TEInJSBAOJqaJaJ Jequry Sunua,rerd ur enlel etuos Jo exlandar tuerJaJJe$r lnq 'sJuale tuerJaJJe$r lnq 'sJuale t
erp Jo sJnor{ 9 ulqrp\ rnJro ot speau dderagr Jo uonenrur pu? FIGURE 13-3 All living organisms are composedlargely of proteins are large, complexmolecules are usually found in proteins. Enzyme dosage per meal or snack is adjusted empirically to
control gastrointestinal symptoms, including steatorrhea, and to promote growth appropriate for rye lf gastrointestinal sTmptoms cannot be controlled, enzyme dosage, patient adherence, and enzyme type should be reevaluated. Iron is part of hemoglobin in red blood cells and myoglobin in muscles. The rationale for not providing a more extensive list
is not based on the lack of efficacy or excess adverse events but rather because it is imperative that practitioners seek dlmamic data sources for this information because the BMD; and the converse also true, the lower the body mass, the lower the BMD.
ultt!ilnN,srtugtre proteunar{Jqtr,nstuened ur Iro a rlo pue Iro r{sgJo uonetueruelddn5:lBra yy treqrefl '0002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :lL anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :ll anN ullJ rav,suor]rpuoccrEoloterunaqr I ur e8e.roqpue esorurrrdSuruaz'g:V IIIH ,ff rlclag 1ro lro '5002'SZSi :ll anN ul
'snr.rrfrreoelso :TN spre.trpg Jolueuneera hE seureg '9002't8tt(0s7 {uunruut1 'seseasrpeunrururotn? On postoperative day 8 Thomas' serum glucose level was 310 mg/dl, and his arterial Pco2 was 52 mg/dl. There is an increased communication of potential risks to health care professionalswith direct patienr contact, as well as those involved in
community education. Spatialrelationshipsvary amongcultures and amongindividuals. The major reason is that the albumin level is very sable in healthy persons, whereas prealbumin concentrations vary considerably. Investigate the claims being made about the products and avoid products with exaggerated laims associated with them. Cultural
sensitivity or awarenessinvolves respecting and understanding the attitudes, values, and beliefs of others; willingness to use culrural knowledge while interacting with clients; and considering culture during discussions and recommendations for treatment (Ulrey and Amason, 2001). I oz bread product, such as I slice ofbread o j/+ to I ounce of most
snack foods (Some snack foods may also have added fat.). i, Dehydrogenasereaction: similar to pyruvate dehydrogenase, characterizes the removal of hydrogenase from the referring physician that you evaluate any herbal
preparationsshe is uking. Fat Storage FIGURE 21-l Behnke'stheoretic body composition model for a man and a woman with healthypercenragebody-fat ranges. Showing the client respectful but close spaceis another important nonverbal message. Silencecan give the client respectful but close spaceis another important nonverbal message. Silencecan give the client respectful but close spaceis another important nonverbal message.
client has said. Shaking one's head in agreement can be a positive encourager, leading to more conversation. (@ 2006 Jupiter Imaga Corporation.) lated in intermittent short bouts. Chicago, 2006, American Dietetic Association. Mature atherosclerotic plaque Vessellumen Endothelium Fibrouscap Lipidcore Vascularsmooth musclecells Media Adventitian Dietetic Association.
Stable plaque Thicktibrouscap Smalllipidcore Unstable plaque Thin fibrouscap Activatedendotheliumexpressing adhesionmolecules Accumulationof macrophages Largelipidcore FIGURE 32-1 The structureof mature, stable, and unstable plaque (FromRuddJHF et al: Imaging of atherosclerosis-can wepredictplaqueruptare? Tiends CardiovascMed
15:17.2005.) 835 PART5 Medical Nutrition Therapy The clinical outcome of impaired arterial function arising from atherosclerosisdepends on the location of the impairment. Additional helpful information for appropriate accesssite, medical and medicationhistory coagulationtimes.
need for additional infusions, peripheral vein condition, functional status, and lifestyle (Sachset al., 2005). See Chapter 43 for discussion related by initiating therapy at a low dose and gradually increasing the dose to therapeutic levels (van de Laar, 2005). Ho . The primary objectives of
medicalnutrition therapyare to manage the symptoms associated with the syndrome (edema, hypoalbuminemia, and hyperlipidemia), decrease the risk of progression renal failure, and maintain nutritional stores. GourMoN PnoBLEMs Plateau Effect A common experience for the person in a weight-reduction program is arrival at a weight plateau, when
weight remains at the same level for a period of time. When a particular allele existsin greaterthan 1% of and the the population, it is called genetic polymorphism, is an imporgeneis saidto be polymorphism tant concept because it explains why human beings, although 99.9% alike genetically, are distinctively different.
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411 tes$, 414b C.NIV (cytomegalovirus) definition, 991 infection in AIDS, 1006 cobalamin, 92-94. These patients also present additional problems because of their frequent history of smoking, alcohol use, and poor dietary intake. Aaian: The patient engagesin actions that bring about change, fu clients review situations in their lives and lack of time for
dietary changes, the counselor will hear ambiyalence. Micronutrient content E. Peripheral veins cannot tolerate concentrated solutions; therefore diluted larger-volume infusions are often necessary to meet nutritional requirements. Minerals that function aselectrolytesneed to be monitored closely, especially because of fuid imbalances and the
occurrence ofrespiratory acidosisor alkalosis.fu a side effect of medications, potassium, calcium, and magnesiummay be lost in the urine. For example, a client who is wary of describing why she is not ready to change may become much more open to change if she sees openness to her resistive behaviors. Natrition Coanselor: I appreciate your concerns
Borowiz DS et al: Consensusreport of nutrition for pediatric patients with CF, J Pediat Ga.tTrrentenlNatr 382246,20{1.2. Brady MS et al: An enteric-coatedhigh-buffered pancrelipase reducessteatorrheain patients with cystic fibrosis: a prospective, randomized stdty, JAm Diet Assoc 106:ll81, 2006. Dai Q et al: Consumption of animal foods, cooking methods,
Prea and risk of breastcancer, Cancer Epidemiol Biomarkers I 1:8 0 12,0 0 2. Neter JE et al: Influence of weight reduction on blood pressure: a meta-analysis of randomized controlled tials, Hypertension 42:878,2003. In the United States the racial and ethnic composition of the population is rapidly changing. brillator Cesario DA, Dec GW:
Implantablecardioverter-defi therapyin clinical praction and handling standardsidentified and regulated by the USDA; in the marketplacethe food is labeled with the
                                                                                           nic seal. These changescan causea loss of as much as 6 to 9 in in heighr and result in the so-called dowager'shump (far right) in the upper thoracic vertebrae. What antacidsor other over-the-counter (OTC) medicationsor food products are you taking that provide supplemental numbers.
etc? RnrroNALEAND RrrERrA F O RA P P R O P R I A T E N urRrrroN UPPoRT Historically the use of enteral nutrition for acutely ill, postoperative, or posttrauma patients rested on evidence of bowel function as indicated by bowel sounds and flatus. Blue dye (Food, Drug and Cosmetic [FD&C] Blue No l) added to enteral formulas has been used to
detect aspiration of formula for years. When needed, it is given separately to stable home care patients as iron dextran. A very small number of personsinfectedwith HIV exhibit no signsof disease progression even figh biologic value (HB$, and
energy intake should be about 35 kcal&g/day for aduls and 100 to 150 kcal/kg/day for children. Figure 25-3 contains a sample diet plan that is low in cariogenic risk. Likewise, a small rise in osmolality brings about marked vasopressin secretion and retention of water. Finally the nutrition counselor may be confronted with a hostile client.
Energyrequirementsfluctuateand thus are best determined by continuous individual assessmenr. Senate Select Committee on Nutrition and Human Needs: Dietary goalsfor the United States, P', tbI No. 052-070-03913-2, Washington, DC, 1977, U.S. Government Printing Office. Data from Barlow SE, Dietz WH: Obesity evaluation and treatment: erlrert
committee recommendarions, Pediatrics 102:3,1998 and AD.d 2007. See Nauseaandvomiringin pregnancy nystagmus, definition, 1068 tr OA. These concurrent risk factors may help to explain the high morbidity and mortality rates observed in people who are obese. In most cases institutions will have established standards of care or practice quidelines that
describe recommended actions in the nutrition care process. F.1 €-, e h. com American Obesity Association www.obesity.org A m e r i c ao n t h e Mo ve www. The synthetic form is labeled dl, whereas the natural form is labeled dl, whereas the natu
five classic modes of inheritance (Thble 13-1). Vegetarians should pay special attention to ensure that they get adequate calcium, iron, zinc, and vitamins B12 and D. Include the foods you might suggest for frrlfilling the nutrition prescription. Gare Nutritional Deficiencies of vitamin C, folate, and zinc increase the permeability of the gingival barrier at
the gingival sulcus, increasing susceptibility to periodontal disease. Severe deterioration of the gingiva is seen in individuals with scurg' or vitamin C deficiency. Nonuaditional behavioral interventions for racial and ethnic minority populations are potential researchareas (Berkel et
al., 2005). As a result of the ability to recognize and eradicate H. In Lysen LII editor: Quick reference to clinical dierrrlar, Gaithersburg, Md, 1997, fupen Publishers; and WeckwenhJ et al: Home nutrition support. Evaluate . Access Peripheral Access Nuuient solutions not exceeding 800 to 900 mOsm/kg of solvent can be infused through a routine
peripheral intravenous catheter placed in a vein in good condition. Muslims are also encouraged to fast 3 days of every month. Once in the eholothelial cell surface in muscle and adipose tissue. Apo C-II, one of the apolipoproteins in chylomicrons, is a cofactor for
LPL. The 0.1% difference is sufficient to explain the obvious physicalvariations among humans. It is also the basisfor more subdedifferences that may not be readily observable, suchasin the functional ability of a key metabolicenzyme. 552 PART4 i Nutritionfor HealthandFitness Natural Weight-LossAids fi mericans are constandy being told that "diets
dont Awork." The lure of a quick and easysolution to the challenge of weight management is strong, and the market for natural weight-loss aids is booming. Mycobacteriumtuberculosisinfection, pulmonary o Nocardiosis . Most of the earth's iodine is found in its oceans; thus parts of the world away from the oceans and exposed for millions of years
longer have iodine-deficient soils, and large percentages ofpeople living there can be iodine deficient unless public health measures are taken. Formula administration is initiated at 100 to 150 ml per feeding and increased incrementally as tolerated. Evidence-Based Dietary SupplementResources Websites Agenry for Healthcare ResearchQuality,
USDHHS: htrp://www.ahrq.gov American Botanical Council: www.herbalgram.org American Dietetic Association, Complementary Care Dietetic Practice Group: www.consumerlab.com Computer-assisted research dietary
supplements (CARDS): CARDS Database.aspx Dietary supplements.info.nih.gov FederalTiade Commission: www.ftc.govlbcp/conline/pubs/buspubs/dietsupp.htrn Food and Drug Administration @DA): www.ftc.govlbcp/conline/pubs/buspubs/dietsupp.htrn Food and Drug Administration on dietary.
supplements database: http://dieary-supplements.info.nih. Some of the smaller LDL particles stay in the blood, are oxl. dized, and are then taken into the arterial wall. Small amounts of chili pepper or its pungent ingredient, capsicum, may serve to increase mucosal protection by increasing production of mucus; but large amounts may cause superficial
mucosal damage, especiallywhen consumed with alcohol. A current concern illustrates the importance of food safety(i.e., a pandemic fpopulation wide] influenza ourbreak related to avian influenzation digest, and less likely to cause
constipation and gas than calcium carbonate. Wenke K et al: Impact of simvastatintherapyafter heart transplantationan I I -yearprospective evaluation, Hnz 30:43l, 2005. flncludes a diet record to determin e energy and, f* inale, as well as a determination of stool fat excretion. Which foods would you recommend to help Machew achievehis health goals?
It is not the raditional low-salt diet. Must A et al: The diseaseburden associated with overweight deficiencies are rare, U.S. Department of Agriculture
(IJSDA), Agricultural Research Service(ARS): Nutient datalaboratory, Beltsville, Md, 2006 and ongoing, USDA, accessed July l, 2006. Actually energy needsmay be increased (Finnerty et al., 2001; Slinde et al., 2006). Artificial saliva preparations and saliva stimulants are often useful in cases of diminished salivation, as are foods with high
moisture content and plenty of fluids throughout the day and with meals. Would you have Rickchange it? These underlfng conditions affect the total amounts, ratios, and kinds of protein, fat, and carbohydrate prescribed. Administer 10 mg fV metoclopramide into the alcian to place bedside enteral feeding tubes becauseshe or he ready placed fV hne.
Short-andLong-Term Regulation Short-term controls are concerned primarily with factors governing hunger, appetite, and satiety. Alcohol and drug use, increased metabolic needs, increa
contribute to malnutrition. Parenteral nutrition calculations and orders are inherendy complex. However, it has been recognized in all kidney function has been lost, regardless of the underlying disease, progressive further loss of kidney function ensues. Gums are found in plant
secretions and seeds. The specific textural qualities of grrms and mucilages are commercially useful when added to processed foods such as ice cream. Flush the tube the NSD by the other members of the health care team, and with 20 ml of warm water with each advancement. These sources include; Brazil nuts Whole grains Dried fruits Wheat
Prunes Millet Raisins Oats Apricots Brown rice Vegetables/Greens Legumes Broccoli Lima beans Spinach Soybeans Kale Dried beans and peas Collards Kidney beans Apricots Brown rice Vegetables/Greens Legumes Broccoli Lima beans Apricots Brown rice Vegetables/Greens Lima beans Apricots Brown rice Vegetables/Greens Lima beans Apricots
ready-to-eat cereals (various), =1 e2 Oysters, eastern, wild, cooked, moist he*,3 oz Organ meam (liver, giblets), various, cooked, % cup Pumpkin and squash seed kernels, roasted, 1 oz White beans, canned, % cup Blaclistrap molasses, I Ttrsp Lentils, cooked, 7z cup
Spinach, cooked from fresh, % cup Beef, chuck, blade roast, lean, cooked, 3 oz Beef, bottom round, lean, 0 in fat, all grades, cooked, 3 oz Beef, rib, lean, V+in. This is done to dismiss an inability to follow an eating pattern by excusing poor compliance as just a given due to past
behaviors. Howeveg eventually many patients with gpe 2 diabetes will require a more physiologic insulin regimen to achieve control. s[Eal]Pue selesuedurocdlsnoeueluods pue, tpuepuadepurrng Sutreocreptmpuol8lda ererl ro 'uonuele.l', {e1appeSu,|regd ro pro pyu e,teg, {eu luer}ed . C. These include dry mouth and throat, nausea, vomiting, diarrhea,
increased serum glucose levels, sodium retention, and hypokalemia, as well as hand tremors, headache, and dizziness(see Chapter 16). The %DV listed on the Nutrition Facts panel of food labels states the percenuge of the DV provided in one seMng. The EAR should be used for assessing the nutrient adequacyof populations, not individuals. For the
next 6 monrhs the focus changes from weight loss to weight maintenance. Many women loseseveralinchesin height between 50 and 80 years of age. Fractures may occur during ordinary activities, such as lifting a sack of groceries or stepping over a shower opening, but a large percentage of the hip fracfilres osteoporosis affects result from a fall. The
container is immersed in a known volume of water, and the rise in the temperature of the \Mater after igortita the food is used to calculate the heat energy generated, tion with a cholesterol, low-density-lipoprotein cholesterol, and uiglyceridesin patients with nephrotic syndrome (see Chapter 32). Davis CA et al:
Past, present, and future of the food guide pyramid, J Am Diet Assoc101:881,2001. EER, Estimated energy expenditure. Fat also conveys important textural properties to foods such as ice creams (smoothness) and baked goods (tenderness-due to "shortening" of strands of gluten). Nandrolone
Data from Von Roenn JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues17(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues18(suppl):20, 2002; md Murphy S, Von Roem JH: Pharmacologic interuentions for cancer-related weight loss, OncologIssues18(suppl):20, 20, 20, 20, 20, 20, 20, 20, 20,
Relationshipbetweenserumparathyroid hormonelevels, vitamin D sufficienry, and calciuminake, /AMA 294:2336,20Q5. Some treatments and medicationscan causeloss of appetite, as can the cancer iself. Seeaho Celiec disease tropical spme as, 686-687 enzyrnes, digestive, 6t in nutrient absorption, 11-13 stmcture/function, I I-I 3, I If smell
decreasedsense, in older adulthood, 292 loss, 1070 smoking as cardiovascular diseaserisk factor, 849 gastrointestinal function and, 658b osteoporosisand, 630, 61 I SMR. ArcherSL:Association of dietarysupplement usewith specific micronutrient intakesamongmiddle-agedAmericanmen and women: the INTER-NIAP Sndy, J Am Diet, 4ssoc 105:1106,
2005. Reflective listening involves a guessat what the person feels and is phrased as a statement, not a guestion. In addition, progressis being made in understanding the role of genetic variants in hypertension (DASFI) diet gene-
dietinteractions are those that code for apolipopro- than others and that is not responsive to dietary sodium restriction (Flunt et esteryl transport protein (CETP), hepatic lipase (LIpC), al., 1998; Svetkey et al., 2001; Gu et al., 2005). Knowing the lipoxygenase-
s(ALOX5), perilipin (PLIND, MTHFR, angenotype of clients provides additional important to evaluate all weight loss programs for sound nutritional
practices. The number of cells does not decreasewith weight Musc|e............. QureshiAI et al: Prevalenceand trendsofprehypertension in United Sates: National Health and Nutrition Examination Surveys 1976 to 2C00, Med SciMonit 22:CR403, 2005. Percutaneous endoscopic gastrostomy tubes are now the most common and preferred
method for home tube feedings. Tiedget EE, Yu YM: The metaboliceffectsof thermal injury WorldJ Sarg 16:68,1992. An interesting finding is the role of tobaccoexposurein the development of inflammatory bowel disease(IBD). Complications of hemorrhage and perforation contribute significantly to the morbidity and mortality of peptic ulcers.
Modeling, that is, walk the talk. Socrnl EHAVIoRAND S ociaBle havior does not occur in a vacuum. SeeFormula(s) for premature infants, I 125-11 33 carbohydrates in, I127-11 10 formulas for, I 131-1 133 human milk for, I 130-1131 lipids in, I 127-11 26, I 1 27 minerals in, Il27-11 29
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refeeding slmdrome and, 522-523 surgically placed enterostomiesfor, 510 [ansruon to oral feeding, 523 parenteral feeding, for end-stage renal disease, 944 enteritis, radiation-induced, 975 enterocolitis, necrotizing, definition, I I 17 emerogasffone definition, 2 in lipid digescion, 17-18 enterohemorrhagic Ercherichiacoli
(F'HEC), 327t enterohepatic circulation, 18 enterokinase in digestion and absorption, 6t in protein digestion, 17 enteropathies, food reactions, 745t enteropathy AIDS, 1006 definition, 991 gluten-sensitive, 681-686. Diets that emphasize fast results with minimum effort encourage unrealistic expectations, setting the dieter up for failure, subsequent
quilt, and feelings of helplessnessat ever managing the weight problem. In 2003 the prevalence of C\{D was highest in non-Hispanic whites (34% men, 3270 women) (Thom et al., 2006). J Clin Gastroenterol33:215, 2001. Hung HC et al:
Tooth lossand dietary intake, J Am DentAssoc 134:1185,2003. Supplementary carbohydrate is generally not needed in individuals who are not treated with insulin or insulin secretagog'ues(ADA, 2006b). Estrogens appear to stimulate LPL activity in the gluteofemoral adiporytes and thus promote fat storage in this area, an effect that is seldom seen in
obese men. Radiologic verification oftube placement is the preferred method of confirmation ro ensure safety. Summarizing is more lengthy than paraphrasing because it uses more information and summarizes what has been said over a period of time. Suboptimal calorie and protein intake (70% and 75"/" of estimated needs, respectively) Noon
sandwich: 2 sliceswheat bread with I tsp musard' 1/zc alfalfasprouts, 1 c sliced tomatoes and cucumbers, V+c avocado; 15 mini pretzels Vz cvanilla custard 12:45pu I each apple and banana, 2 chocolate mint 3pu pames 3 c mixed salad, 1 cJapanesenoodles 6:30 pu 4 bite-size chocolates 9:00 pu She drinlrs 2-3 L of water throughout the day.
Carbohydrate/lipid considerations 6. Since 1990, a 6lo/" increase in the prevalence of diabetes has been observed, and it is becoming more prevalent in obese children (Thom et al., 2006). HeaneyRP: Calcium, dairy products, and osteoporosis, J Am CollNurr 12:835,2000. Native Hawaiians, Pacific Islanders, American Indians, or Naskan natives are
more likely to have CHD than the other groups. 870 PART5 I MedicalNutritionTherapy Weight and hlpertension among men and women in all race or ethnic groups and in most age-groups. Frequently the information is in the form of histories-medical. A review of the evidence, Int J Food
SciNutr 54:357, 2003. Her physician recommended that she sart taking supplements of calcium (1000 mglday) and vitamin D (S00 units/day) because of her lactose intolerance and her lack of consumption of all dairy producs. Water can be added to gravity bag depending on hydrationneeds. In considering how best to implement genetic technologies
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into the practice of health care, the issuebecomes who should be tested? Ethical issuesabound. Each kidney consists of approximately 1 million functioning units called nephrons (Figure 36-1). RosenCJ, BilezekianJP: Anabolictherapyfor osteoporosis, Meubol 86:957,2001. World Health Organizarion: Energy and protein requirements. FeinbergAP et al
The epigenetic progenitor origin of human cancet Nat Rn GenetT:21,2006. Ideally these agents are prescribed in combination with nutrition counseling and physical activity assessment, monitoring, and evaluation. CF can have a profound impact on the digestive system (Constantine et al., 2004). Meat aversions may require the elimination of red meats,
which tend to be strong in flavor, or the substitution of alternative protein sources. The EER incorporates age, weight, height, gender, and level ofphysical activity for people ages 3 years and older. It is not associated with hypoglycemia, may cause small weight losses when therapy begins, and improves lipid levels. Cudi* cachexia 'Hypomagnesemia .
Different skills and strategies are needed to offer individualized guidance. Jo selJ -lc cqsrralceJeqcol Jo lJaJJeoqaceld aq] ot palnqrJp? Serum levels less than 150 mglml are considered to food jagpasevidenced by recentweight loss 1. Large
protein lossesin the urine lead ro hypoalbuminemiawith consequent edema, hypercholesterolemia, hypercholestero
supplementationinclude nutrition status, medical status (e.g., factors such as the presence of orygenation during sleep), risls associated with tube feeding (e.g., aspiration), and the psychosocialand financial impact. When energy and nutrition status, medical status (e.g., factors such as the presence of orygenation during sleep), risls associated with tube feeding (e.g., factors such as the presence of orygenation during sleep), risls associated with tube feeding (e.g., factors such as the presence of orygenation during sleep), risls associated with tube feeding (e.g., factors such as the presence of orygenation during sleep), risls associated with tube feeding (e.g., factors such as the presence of orygenation during sleep), risls associated with tube feeding (e.g., factors such as the presence of orygenation during sleep), risls associated with tube feeding (e.g., factors such as the presence of orygenation during sleep).
(Hart et a,1.,2004) (see Patbopbysiong and Care ManagementAlgorithm: Cystic Fibrosis). What seemsto be the major problem withJim's eating patterns? Considerable evidence attests to the health benefits of a vegetarian diet. When they upload a new HD wallpaper, you'll know about it instantly. Pixabay License/FirmBee/Pixabay Desktop NexusThis
site may not have the most attractive user interface, but its sheer volume of HD wallpaper content more than makes up for it. Caries Prevention Guidelines Brush at least twice daily, preferably after meals. IJnfortunately dentures do not fully solve the problem. SeeGastrointestinal; Glycemic index gingiva, defi nition, 63 6 gingival sulcus definition, 636
plaque in, in periodontal diseasedevelopment, 645 ginkgo biloba, supplemental, efficacy, reviews, 479r ginseng, Siberian, ergogenic aid, 604t GIP. (htodifedfrom to the gastointestinal nact. Substancesthat decrease the absorption ofnonheme iron are: Oxalic acid, found in raw spinach and chocolate Phytic acid, found in wheat bran and beans (legumes)
 Thnnins, found in commercial black or pekoe teas Polyphenols, found in coffee Calcium carbonate supplements Heme iron is absorbed more efeciency than nonheme iron. Silverman, MPH, RD KEY TgR&.1S acquired immune deficiency than nonheme iron. Silverman, MPH, RD KEY TgR&.1S acquired immune deficiency than nonheme iron.
slrndrome, cancerssuch as Kaposi's sarcoma or non-Hodgkins 11'rnphoma, or one of 20 other opporrunistic conditions acute HIV infection the 4- to 7-week period of rapid viral replication immediately after exposureto the virus, characterized by fever, malaise, and other flulike q/mptoms AIDS enteropathy changes in the small and large bowel thought to
be attributable to direct HfV infection with no other identifiable pathogen; manifesredas chronic diarrhea and possiblymalabsorption antiretroviral therapy (ART) combination of medications used to kill or suppressiving replication and progression of HfV disease; also called highly active antiretroviral therapy (HAART) CD4+ cells T-helper ll.mphocyte
cells constitutional disease affecting the whole functioning make-up of the body, such as vdth HIV infection: persisten*t fever, night sweats, chronic or intermittent fatigrre, malaise, or diarrhea of unknown etiology cytomegalovirus (GMV) group of herpesviruses with special affinity for salivary glands; manifesting as mononucleosis-like q.4nptoms
dysesthesia a painful and persistenr sensation induced by gentle touch of the skin HIV-associatednephropathy disease of the brain causedby HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain causedby HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain causedby HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain causedby HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain causedby HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain causedby HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain causedby HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain caused by HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain caused by HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain caused by HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain caused by HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain caused by HIV infection (AIDSdementia) degenerative HIV encephalopathy disease of the brain caused by HIV encep
humanimmunodeficiency virus (HIV) the retrovirusisolated and recognized as the etiologicagent of AIDS Kaposi'ssarcomaa malignantneoplastic vascular proliferation characterized by the development of bluish-redcutaneous nodules, usually on the surface of the skin or in the oral cauty lipodystrophya disturbance in the way the body produces, uses, and
distributesfat myalgiadiffrrsemusclepain, usually accompanied by vague feelingsof discomfortor weakness opportunisticinfection infection by an organism that causes disease in someonewith an impaired immuneresponse protease inhibit the viral protease in someonewith an impaired immuneresponse protease inhibit the viral protease in someonewith an impaired immuneresponse protease inhibit the viral protease in someonewith an impaired immuneresponse protease inhibit the viral protease inhibit the viral protease in someonewith an impaired immuneresponse protease inhibit the viral protease
replicatesusing an en4zme(reversetranscriptase) to copy RNA ittto DNA when RNA is its naturalgeneticstate; most cellshaveDNA in their naturalstateand rranscribeto RNA during replication viral load testing measurement of the quantity of HW RNA (free virus) in the blood, expressed copiesper milliliter of blood plasma, by polymerase chain
reacrionor bDNA tests; undetectable is optimal 99n 992 PART5, Medical Nutrition Therapy The relationship between immunity and nutrition is well established. The nutrition management of HrV disease. The nutrition provider must become
familiar with evolving understanding of HfV: its diseasepathophysiology, complications and treatments; medications and interactions; populations affected; and common comorbidities such as insulin resistance, lipid dysregulation, bone, liver and kidney diseases, substanceabuse, and eating disorders. Consumption of large amounts of alcohol from any
source may cause at least superficial mucosal damage and may worsen existing disease or interfere with treatment of the peptic ulcer. The walking equivalents that correspond to each PAL category (i.e., low-active, active, and 17 miles per day, respectively (Institute of Medicine).
2002;2005). Symptoms of functional dyspepsia are reported in about 1570 to 20"/o of adults over a year's time and may include vague abdominal discomfort, bloating, early satiety, nausea, and belching. In October 2000 the National Heart, Lung, and Blood Institute $EILBD in cooperation with the North American fusociation for the Study of Obesity
QIAASO) released Tle Practical Guide: Identification, and Tieannent of Ouerweight and Obesityin Aduhs based on the 1998 Clinical Guidelines publication. 8. Inclusion of this privilege in the NSD's ery 3-5 minutes, rotating the tube in a clockwisefashjob description will aid with this necessary coverage. At the initial consult, Ellen tells you
she is taking the following dietary supplements: garlic pills, ginseng, grnkgo, and St. John's wort, along with the following medications: warfarin, a tricyclic antidepressant, and blood pressure-lowering medications warfarin, a tricyclic antidepressant, and blood pressure-lowering medications. breastcanceris associated with Wirfalt E et al: Posffnenopausal high intakesof omega-6faty acids(Sweden), Cancer Causes
Controll3:883,2002. 382 PART3 | NutritionGareProcess OrdovasJM et al: Pol)'unsarurated fatty acidsmodulatethe effectsof the APOAI G-A polymorphismon HDl-cholesterol concentrationsin a sex-specificmanner: the Framingham Sndy, Am J Clin Nut 75:38, 2002b. However, because a majority of these patients receive much of their care outside the
hospital, nutrition assessmentand monitorins are of critical importance. In time the pi"qo" combines with calcium and hardens to form calculus. Change is promoted through discussionsfocusedon possiblereasonsfor change. ManusirivithayaS et al: Antiemeticeffect of ginger in glmecologiconcologypatientsreceivingcisplatin,Int J C4necol
Cancer141063, 200+ McKay DL: The effects of a multivitamin/mineral supplement on micronutrient status, antioxidant capacity and cytokine production in healthyolder adults consuming fortified diet, Nutr 19(5):613,2000. In addition, an important indigestible dietary component, fiber, is included, as well as a review of the basis concepts regarding the
structure, function, and use of nutrients in the body. Gastroesophageal cancer may develop in the absence of known reflux diseaseand BE (Chang and Ktzka, 2004). Postgastrectomy slmdrome encompasses a myriad of nutritional
intolerancesand deficiencies. Its syrnptomsinclude dumping slmdrome, fat malabsorption, gastric stasis, lactose intolerance, anemias, and metabolic bone disease (e.g., osteopenia, osteopenia
dietary behavior change. FoodNet to track foodborne illness incidence and trends and PulseNet for early detection of foodborne illness outbreaksare useful resourcesin this situation (Peregrin, 2002) (seeThble 1 1-5 for these resourcesand others). Fructose provides 4kcaUg, as do other carbohydrates, and even though it does have a lower glycemic
response than sucroseand other starches, large amounts (15% to 20Y" of daily energy intake) of fructose have an adverse effect on plasma lipids (Bande et al., 2000). Health objectiaes, and Human Services. Tools such as the "Tlafific
Light" Diet for children aged 2 to 5 years and the MyPyramid Food Guidance Systemfor children aged 6-12 years are recommended. Miller W, Rollnick S: Motiaationalinter-uiewing: preparingpeopleto cbange addictiaebehaoiors, New York, 1991, Guilford Press. monitoring, and evaluation FIGURE 18-5 Use of dietary supplementationin clinical practice.
requires use of a credible resourcefor evaluation and application. They are isomers of one another. In Elliott L et al, editors: The clinical guide to oncolog nutrition, ed 2, Chicago, 2006, American Dietetic Association. Cariogenicity also is influenced by the volume and quality of saliva a person produces; the sequence, consistency, and nutrient
composition of the foods eaten; plaque buildup; and the generic predisposition ofthe host to decay. An optimal pulmonary system enablesthe body to obtain the original pulmonary system enablest the original pulmonar
precaution related to controlling risk the issue of meeting food safety standards. Barr J et al: Outcomesin critically ill patientsbeforeand after implementation of an evidence-basednutritional management protocol, CbestL25:1446,2004.. SeeDoubleblind, placebo-conuolled food challenge food-deprived hypoglycemia, 803 definition, 764 Index L323 food
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medium 6:uit 7r cup dried fruit % cup fresh,frozen, or cannedfruit 8 oz millg I cup yogurt, or 1.5 oz cheese 3 oz cookedmeats, poultry, or fish 1 egg whitef 1.5oz (t/zcup) nuts, % oz or 2 tbsp seeds,1l cup cookedlegumes I tsp soft margarine, veg. However, despite this support, the widespreaduse offluoride has been challenged by "antifluoridationists"
who claim that fluoridation restricts individual freedom ofchoice and increases a caalytic cofactor for the vitamin C-dependent hydroxylations of proline and lysine in collagen maruration. Only then is it available for insulin-dependent uptake by peripheral
tissues. Thus the major regulators of blood glucose concentration after a meal are (1) the amount and digestibility of ingested carbohydrate, (2) the absorption and the sensitivity of peripheral tissuesto insulin action. The NSD the epigastric area with a stethoscope. ZengX et al. Ginkgo biloba for
acuteischaemicstroke, Cochrane Database SystRn, CD003691, October 19,2005. Bochicchio GV et al: Persistent hlperglycemia is predictive of outcome in critically ill trauma patients, / Thauma 58:921, 2005. In childien and pregnant and lactating women, the EER includes the needsassociated "f with the deposition of tissuesor the secretion of milk at
rates consistentwith good health. Patterson RE et al: Changes in food sources ofdietary fat in response to an intensive low-fat dietary intervention: early results from the women's health initiative, J Am Diet Assoc I01:454,20Q3. What would that be like? Homocysteine, an amino acid metabolite of methionine, was proposed as a risk factor when it was
observed that children who were deficient in rystathionine B slmthase, the essential enz; We for breakdown of homocysteine, were found to have premature atherosclerosis, albeit in veins and not arteries. This patient also received a course of high-dose cyclophosphamideand whole-body radiation. This emphasis on personal choice helps clients avoid
feeling trapped and confined by the discussion. 5 glkg BW Tiznsplang 4-6 weeks after uansplant To achieve/maintain Peritoneal dialpis (cAPD) (ccPD) urine output Ad libitarn. In rare circumstancesharsh foods + urine output Ad libitarn. In rare circumstancesharsh foods after uansplant To achieve/maintain Peritoneal dialpis (cAPD) (ccPD) urine output Ad libitarn. In rare circumstancesharsh foods after uansplant To achieve/maintain Peritoneal dialpis (cAPD) (ccPD) urine output Ad libitarn.
may causeperforation (e.g., chips, crisp crackers, and hulls). It is now recommended that supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if the level of fluoride in the water supplementation start at the age of 6 months if
the American Dietetic Association: Dietetic 
North Carolina ChapelHill, NC Sr. JeanneP Crowe, PharmD, RPH Director of Pharmacy Camilla Hall Nursing Home Immaculata, Pennsylvania Cynthia TaftBayerl, MS,RD,LDN Nutrition Coordinator, Massachusetts Fruit & Vegetable Nutrition Coordinator Nutrition and PhysicalActivity Unit Division of Health Promotion and
DiseasePrevention Massachusetts Department Public Health Boston. Massachusetts R u t hD e B u s h P,h DR, D Geneticistand Clinical Dietician PrivatePractice Tallahassee. Intakesfor VitaminK DietaryReference and Adults for Children Age (years) 1-3 4-8 9-t3 t4-18 19+ Males and Females (mcg/dayl Pregnancy (mc&ldayl Lactation (mcg/dayl 30 55)).
60 75 120for males; 90 for females N/A N/A N/A 75 90 Continued. and subsequent Shu XO et al: Soyfoodintake during adolescence risk of breastcanceramongChinesewomen, CaneerEpid.emiol Preu 10:483,2001. Manifestations such as phanTngealirritation, frequent throat clearing, hoarseness, and worsening of asthmatic
s).rrnptomsmay also occur with or without classic heartburn or noticeable acid reflux. Risedronate This bisphosphonate has similar properties as the others, but it exerts its beneficial effects with fewer doses being required over a year. The patient may be taking prescription
medications to trear the elevated cholesterol, may be at risk for increased bleeding time with long-term garlic use, or may be intolerant of the potential gastrointestinal discomfort. Seea/soNephrolithiasis storage of biotin, 94 of chromium, 132
of copper,I 26 of folate,90 ofiodine,128 ollron, III of magnesium, 110 ofmanganese,131 ofmolybdenum, 133 of niacin, 86-87 ofpantothenic acid, 88 of phosphorus, 108 ofriboflavin,84 of selenium, 129 of vitamin E, 79 of vitamin E, 79 of vitamin E, 79 of vitamin K, 81 of zinc, 122
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excessphytatealsoreducesstarchhydrolysis. The microspheres, designed to withstand the acidic environment of the DV is a low source, whereas a food that provides 107" to 19"/" of the DV is a good source A food that
provides 20oZ or more of the DV is high in that Organ meats (iver, giblea), various, cooked. For each include chemical form and review and photocopy labels. Homocysteine accumulates and can promote atherosclerosis and form homocysteine, which leads to abnormal collagen cross-linking and osteoporosis. Specialized solutions with adjusted amino
 acid content are available for pediatric patients and patients with renal or liver disease. These specialized solutions are used infrequendy because of their expenseand the lack of conclusive research data supporting the efficacy of their use. Cholestasis or cirrhosisis caused by this deficiency and there is no trearrnent except liver transplantation (Maher,
2004). Raw foods encouragemastication and salivaproduction, whereascooked or processedfoods may be more available for bacterial metabolism if eaten alone. Given sufficient time, such as when food particles become lodged berween the teeth, salivary amylase makes additional substrate available as it hydrolyzes starch to simple sugars. Calcium
 also needs to be taken alons wirh this anabolic therapy. The traditional approach mistakenly assumes that the patient is already in the action or maintenance stage; this FIGURE 19-t A spiral model of the stagesof change. In changing, a person moves up this spiral to maintenance. If relapseoccurs, he or she must reenter the spiral again at some pornt.
Manyneed to add high-potassium foods to keep blood levels from getting too low; a typical intake is 3 to 4 g/dty. RYGBP significandy improves hypertension, hlperlipidemia, and type 2 diabetes and may also improve kidney function. Survival has dramatically improved because of scientific advancements in diagnostic and treatment
procedures, including nutrition. Management of diarrhea and steatorrhea is discussed in Chaoter 27. "What things make you think it is time for a change?" . Management of Ghemotherapy-Induced Nausea and Vomiting Chemotherapy-induced Nausea and
nauseaand vomiting are commonly classified as anticipatory acute, or delayed, each of which is manifested by distinct pathophysiologic events and requires different therapeutic interventions (Bubalo et al., 2004). fu the disease progresses, damage to the endocrine portion of the pancreas can cause impaired glucose tolerance and development of CF.
related diabetes mellitus (fefferies et a,1.,2005) (see Chapter 30). Alcohol must be eliminated. PattersonCH: Do we needmulticultural counseling competencies? Prochaska approach: JO, DiClemente CC: Thef,ra.nstheoretical crwsingtraditionalboundaries of change, Homewood,Ill, 1984, DorseyPress. A lacto-ovo-vegetarian also consumes eggs. A,
Arteriovenous fistula. In addition, physical activity may improve immune function (Fairey et al., 2002), reduce anxiety and depression, improve mood and self-esteem, and reduce symptoms (Brown et al., 2003). KostisJ et al for the SHEP CooperativeResearchGroup: Prevention feature by antihypertensivedrug treatment in older persons with
isolatedsystolichlpertension, JAMA 278:212,1997. Drinks containing 67" or lessof carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and carbohydratesempty from the stomach as quickly as water and have the advantage of providing both needed fluids and the stomach as a supplication of the stomach as a supplication of the stomach as a supplication of the stomach as a supplicat
formulas were referred to as "elemental" to describe their monomeric components of protein and carbohydrate, which were amino acids and simple sugars, respectively. Weare ntostgreteful to themfor their insights and d'euotion -Tirn AurnoRS, r2TH EprrroN D i a n eM .A n d e r s o P n ,h DR , DC , S BF A D A fusociate Professor Department of
Pediatrics Baylor Collegeof Medicine Flouston, Texas, DL, DS ar a hC. CouchP, hDR fusociateProfessor Department of Nutritional Sciences University of Cincinnati, Ohio John J. Disorders 661 CHAPTER 26 I MedicalNutrition Therapyfor UpperGastrointestinal Tract The prevalence of 1L pyhri infection generally correlates with the
pgidoxine acts as a cofactor in the conversion of glyoxylate to glycine, its deficienry could increase endogenous oxalate production (Figure 36-8). A food that provides 20o/oor moft. Thickening agents are now used to add variety, texture, and aestheticsto pureed foods, which are used when swallowing ability is limited (see Chapter 41). d is a 68-year
 old white man who has been diagnosed with prosate cancer. He has been sent to your nutrition clinic by his oncologist and expectsto undergo surgery in the next few months. As a result of earlier screening for H. However, one certain thing is the effect of treatment on outcome. Soluble fiber sources such as oats and barley are rich in beta-glucans.
The remainder is the number of pounds the child should gain throughout the rest of his or her growth period. Flaxseed lignin also has phytoestrogen activify and can mimic estrogen at its receptors on reproductive organs and bone; the role of flaxseed lignin also has phytoestrogen activify and can mimic estrogen activity activities activities and can mimic estrogen activities 
2002). Ambivalence is a key deterrent to behavior change and can be resolved through intervention. pylori to the stomach wall (O'Mahony et al, 2005). Meat and whole-grain products, as well as some fruits, vegetables, and spices, are relatively good sources, but Brewer's yeast is by far the most concentrated food source. The stem cells used for HSCT
of her dietary habis. pylori (i.e., replacement of duodenal villous cells with gastric-type mucosal cells). Individuals with a sexually transmitted disease (STD) who are sexually exposed to HfV increase their chance of infection by two to five times. His physiciangavehim a diuretic, Lasix, and a B-blocker (Inderal). .8. Calcitonin Calcitonin, a hormone, is
used as a drug to inhibit osteoclastic bone resorption by blocking the stimulatory effecs of PTH on these cells. 21-. cdc.gov/nchs National Academy Presswebsite (IOM, 2006) USDANutrient Database http://www. U.S. Department of Agriculture (JSDA): Continuing surneyof food intakes by indiaiduals (CSFD 1994-9d Beltsville, Md, 1998, USDA. One
measure includes reg-ularuse of protective foods that contain phenolic antioxidants such ai cranber- ries, which may have the capacity to help eradicate H. Natural Weight-Loss Aids). Elevated levels of sodium and chloride (>60 mEq/L) in collected sweat samples
are indicative of CE Criteria for the diagnosis of CF include a positive result on a sweat test and the presence of chronic lung disease, failure to thrive and malabsorption, or a family history of CF (De Boeck et al., 2006). It is currently available as an ingredient in tident brand chewing gums and is anticipated to be available in toothpastes and
person's PAL value can be fficted by various activities performed throughout the day and is referred to as the chnngein physical ctiaity leael (L PAL). Long-term weight control is facilitated by continued patient-therapist contact, whether provided in person or by telephone, mail, or e-mail. Inability to recognize food (agne). In this culture food has great
religious and social significancefor celebrations of a social or religious obligation than simple nourishment. Moderate exercisefor less than 30 minutes usually does not require any additional carbohydrate or insulin adjustment. This may entail you visiting the program talking with the staff and/or communicating with staff
by phone or email. Thick, ropey saliva is often the result of radiation therapy to the head and neck area, causing xerostomia. obstructivepulmonary disease, Ryan CF et al: Energy balancein stablemalnourishedpatients and neck area, causing xerostomia. obstructivepulmonary disease, Ryan CF et al: Energy balancein stablemalnourishedpatients and neck area, causing xerostomia.
Nutritionin the Life Cycle EI o .J I ta (u tA tn OJ tsr { q, E o tt EI o o E |J- s ., 's o F nrs 6s E = .\ o (J qi L oa h >, VF '- tsr !+ t-t )' H+ 6l ri? In women essential fat is higher, abotfi 12"/", becauseit also includes sex-specificbody fat in the breasts, pelvic regions, and thighs. Abstention from alcohol should be advised for people with a history of alcohol abuse
or dependence; for women during pregnancy; and for people with medical problems such as liver disease, pancreatitis, or advanced neuropathy. A period of apparent clinical latencyfollows for an averageof 8 to 10 yearsuntil active HfV virus replication for people with medical problems such as liver disease, pancreatitis, or advanced neuropathy. A period of apparent clinical latencyfollows for an averageof 8 to 10 yearsuntil active HfV virus replication for people with medical problems such as liver disease, pancreatitis, or advanced neuropathy. A period of apparent clinical latencyfollows for an averageof 8 to 10 yearsuntil active HfV virus replication for people with medical problems such as liver disease, pancreatitis, or advanced neuropathy. A period of apparent clinical latencyfollows for an average of 8 to 10 yearsuntil active HfV virus replication for people with medical problems such as liver disease, pancreatitis, or advanced neuropathy. A period of apparent clinical latencyfollows for an average of 8 to 10 yearsuntil active HfV virus replication for people with medical problems are latencyfollows for an average of 8 to 10 yearsuntil active HfV virus replication for people with medical problems are latencyfollows for a period of apparent clinical latencyfollows for a period of apparent clinical latencyfollows for a period of a period 
Center on Human Developmentand Disability University of Washington Seattle, Washington M5, RD, LDN, FABA ZanetaM. See also Inflammatory bowel diseases intestinal pollps as, 697-698 irritable bowel s1'ndrome, 695 -696 of small intestine, 681-687. Some of the increased risk for CHD seen in
diabetic patients is attributable to the concurrent presence of other risk factors, such as dyslipidemia, hypertension, and obesity. OpinLipidol15:101, OrdovasJ et al: Dietary fat intake determinesthe effect of a common polymorphismin the hepaticlipasegenepromoter on high-densitylipoprotein metabolism, Circulation 106:2|| 5, 2002a. Ineffective
communication in health care can result in incorrect diagnoses, noncompliance with treatment, unnecessary pain and suffering, and even death fl/an Wieringen et al., 2002). It also has a lower risk of contributing to the formation ofkidney stones. @rom U.S. Department of Energ; Human Genome Program: www.ornl.goa/hgmis.) tion, and post-
translational processing; (2) the nature of a gene as the regulatory region (and its controlling elements, transcription factors, promoter sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence) and coding region (and its exons and inuons); and (3) the concept of changes in the DNA nucleotide sequence (and its exons and its exon
increasing serotonin levels in the brain. Continaausambulatory PD (CAPD) is similar to standard peritoneum and exchanged manually so no machine is required. Tonsillectomy is less common today than in the past becausemild inflammation of the tonsilsis considered natural pan of the efforts
of the immune system of fight infection. Tinanoff N: Current understanding of the epidemiology mechanisms, and prevention of dental caries in overweight children affect CRP. To keep the diet plan simple, the patient is told to avoid those foods that are
high in oxalatethat have been in his or her diet. Ulrich CM: Nutrigeneticsin cancerresearch-folate metabolism and colorectalcancer, J Nutr 135:2698,2005. In a rush to help, counselors often give advice too soon. 2002). You may want to check with your doctor first. WaterlandR \ Jirde RL: Early nutrition, epigeneticchangesat transposonsand imprinted
genes, and enhanced susceptibility to adult chronic disease, Nutrition 20:63,2004. Emphysema. o bo R a x z F FA N N H + .E € o b N 9 a a !? Until 1926 when replacement therapy was introduced, the term pemicious appropriately described the fatal outcome. Klatsky AL et al: Alcohol drinking and risk of hospitalization for hean failure with and wi*rout
 associated coronaryartery disease, Am J Canliol96:346,2005. A low BMI (lessthan 18.5) associated with greater mortality risk than that of normal individuals, especially with aging (Grabowski and Ellis, 2001). Laboratory testing methods vary. Avoid alcoholic beverages. r "How do you feel when you can't follow your diet?". For prolonged vigorous
exercise, a larger decrease in the total daily insulin dosage may be necessary. After exercise insulin may also need to be decreased. In addition to these acute reductions in insulin dosage finsulin dosage may be necessary. After exercise insulin may also need to be decreased. In addition to these acute reductions in insulin dosage may be necessary. After exercise insulin may also need to be decreased. In addition to these acute reductions in insulin dosage may be necessary.
Zinman, 1994). Sugar-freevarieties are availableand should be suggested for high-caries risk groups. GERD increasesrisk for dental erosion and thus increases are available and should be suggested for high-carries risk groups.
295(6):655,2006. Severalpotential new drugs targeting weight loss and obesity through the CNS pathways or peripheral adiposity signals are in early-phase clinical trials. Cook acidic foods in cast iron pots. Anticariogenic foods are those that prevent plaque from recognizing an acidogenic food when it is eaten first. Protocols to prevent infection vary
Individuals without any saliva at all have the most difficulty eating; artificial salivaryagentsmay not offer relief. With time, left ventricular hipertrophy and eventually congestive heart failure can develop. WischmeyerPE: Glutamine:role in gut protection in critical illness, Curr OpinNut MetabCare9:607,2006. U.S. Food and Drug Administration(FDA)
and U.S. EnvironmentalProtectionAgenry (EPA): What you need to know about mercury in fish and shellfish, 2006, available in severallanguages at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements: Bibliographyof sigwfuant adaances in dietary supplements and shellfish, 2006, available in severallanguages at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements: Bibliographyof sigwfuant adaances in dietary supplements and shellfish, 2006, available in severallanguages at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements: Bibliographyof sigwfuant adaances in dietary supplements and shell fish, 2006, available in severallanguages at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements and shell fish, 2006, available in severallanguages at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements and shell fish, 2006, available in severallanguages at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements and shell fish, 2006, available in severallanguages at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements at accessed July 1,2006. National Institutes of Health, Office of Dietary Supplements at accessed July 1,2006. National Institutes of Health Supplements at accessed At acc
loss programs with any degree of successintegrate food-choice changes with exercise, frequendy with behavior modification, nutrition education, and psychological support. The sessionis openedwith appropriate introductions of all individuals to one another. The client states why he or she is there. The counselorus unally begins with
broad, openended questions and closesthe interview with closed-ended, follow-up questions. Med Jian-JunL et al: Is hypenensionan inflammatory disease? Many supportive therapies may be safely managed in the outpatient arena, thus reducing the period of hospitalization. High death rates in many countries caused ecreased life expectancy, along with a countries caused expectancy.
reduction in tlle work force, a decrease in nationalincomes, slowed economic grouth, and decreased economic grouth, and decreased economic grouth, and decreased economic grouth, and the num- ber of people living with HfV continues to increase shave occurred in Eastern Europe, Central fuia, and Eastfuia. In RombeauJl, Rolandelli RH, editors:
Clinicdnutrition: enteril nbe feeding, Philadelphia, 1997, Saunders; and Ideno KT: Enteral nutrition. Presendyover 60 diseasesthat result from changes from 3"/" to 20Yo. Thus a 10% solution of amino acids supplies 100 g of protein per liter. The
counselor can restate any statements that the client has made about intentions or plans to change or to do better in the future. If so, why doesn't Matthew exhibit tJle samephenotype as Jared? Controlled trials are needed to assess the efficary and cost-effectiveness of most commercial programs (Tsai and Wadden 2005). Both coffee and caffeine
stimulate acid secretion and may also decrease LES pressure; however, neither has been strongly implicated as a causeof peptic ulcers outside of the increased acid secretion and discomfort associated with their consumption. Diseases of the heart (valves, muscle, blood vessels) and vasculatureftrypertension) can lead to HF (seePathophysiol884 to HF) and the increased acid secretion and discomfort associated with their consumption.
Prevalence and Incidence HF is a major public health problem that affecs over 5 million Americans. Unlike other cardiovascular diseases, the number of people being discharged with an HF diagnosis increased by 174"/"from 1979 to 2003 (fhom et al., 2006). Intakes offat, saturated fatry acids, and cholesterol among all age-groupsolder than 2 years of age.
were higher than recommendedlevels (, i qt boO t: '6HghEfq k q) I d a- -r! tr'= i v! --:Y:r0-". Hypertension precedesHF in many men and high risk for developingHF (Box 34-1). Featuresof HF in women. f 662 PART5 I MedicalNutritionTherapy Endoscopyand Capsules he mucosa of the upper gastrointestinal (GI) tract can be I viewed, photographed, and
biopsied by means ofendoscopy, a procedure that involves passing a flexible tube into the esophagusthat has a light and qlmera on the disal end. For example, excessiveself-criticism in response to a dietary lapse could lead to total abandonment of effort. KerstetterJE et al: A thresholdfor low-protein-inducedelevations in parathyroidhormone, Am J Clin
Nutr 72:L68,2000. Oral intake may be encouraged with modifications of food and its presentation. Which specialsteps and neck cancer often have impaired mastication and swallowing caused by the tumor mass or the specific surgical intervention.
required. During mitosis (cell division) all46 are duplicated and distributed to each new cell. The best data are obtained from analysis ofchanges in laboratory values. SeePregnancy-induced hlpertension plncer gTasp definition, 199 in feeding, 214,214f pinocytosis, in absorption, 13 pioglitazone (Actos), in diabetes management, 78t,782r PKU
 (phenylketonuria), 373. SylviaEscott-Stump, MA, RD, LDN Robert Earl, DrPH, RD KEY TERMS adequate intake (AI) the recommended daily intake level based on observed or experimentally determined approximations of nutrient intake by a group (or groups) of healthy people; used when a recommended dietary allowance cannot be determined daily
reference values (DRVs) a set of food labeling reference values for which no nutrient recommendation previously existed; established for fat, sarurated fatty acids, cholesterol, total carbohydrate, protein, dietary fibeq sodium, and potassium daily value (DV) reference term on food labels to aid consumers in selecting a healthy diet; consists of two sets of two se
of references-the reference daily intakes (RDIs) and daily reference values (DRVs)-expressed as percentages DietaryGuidelinesfor Americans(DGA) dietaryrecommendations that promote health and reduce risk of chronic diseasefor people ages2 years and older dietary reference intake (DRI) an overall term designed to encompass the four specific
types of nutrient recommendations (adequate intake [AI], estimated average requirement [EAR], recommended dietary allowance [RDA], and tolerable upper intake level [UL]); used for nurrienr recommendations for the United Statesand Canada estimated average requirement (EAR) nutrient intake value that is estimated to meer the requirements of
half the healthy individuals in a group estimated safe and adequate daily dietary intake (ESADDI) recommended dietary allowance health claim any claim on a food packagelabel or other label (such as an advertisement) of a food, including fish and
game meat, that characterizes the relationship of any nutrient or other substance in the food to a disease or healthrelated condition Healthy Eating Index (HEI) summary measure of overall diet quality; designed to assessand monitor the dietary status of Americans MyPyramid Food Guidance System translates the Dietary Guidelines for Americans
and nutrient recommendations into a visual form of the types and amounts of food to eat each day; new system incorporates physical activity into daily patterns nutrition facts label nutrient content information on food products designed to help consumers (4 years of age and older) select foods to incorporate into a healthy diet using the MyPyramid
Food Guidance System and Dietary Guidelines for Americans recommendeddietary allowance (RDA) rhe amount of a nutrient needed to meet the requiremens of almost all (970/oto 98%) of the healthy population reference daily intakes (RDIs) set of dietary references for vitamins and minerals on food labels based on the 1968 recommended dietary
allowances; replaces the U.S. recommended daily allowances that were previously used with nutrition labeling on food products tolerable upper intake level (UL) the highest daily intake amount of a nutrient that is likely to pose no risk of adverse health effects for almost all individuals in the general population Sections of this chapter were *ritren by
goal of using meal replacements to provide smrctureand replacements to provide smrctureand replaceother foodslikely to be higher in calorie content. 530 PART 3 i NutritionCareProcess Centers for Disease Conrrol and Prevention, O'Grady NP et al: Guidelinesfor the preaention of intraaasatlar ca.theter-related infeaions, Augrrst 9, 2002, mmwrhtml/rr5 I I 0a1.htrn, accessedJanu ary,
2006. Similarly, design rhesesamemeals to include 400 units of viamin D, vrith another rl00 units of units of viamin D, vrith another rl00 units o
their cost. Le Marchand L: Cancer preventive effects of favonoids: a review, ber 56:296, 2002. After 14yearsof follow-up, the Male Health Professionals' Study (MHPS) demonstrateda 38"/"increasedrisk of kidneystoneswith a 77-gversus50-ganimal-proteindiet if body massindex (BMI) waslessthan 25 (Tayloret aI.,2004). N utriti o n D ia g nosis I
Physicalinactivity related to lack of regular exercise Parts : Medical Nutrition Therapy Nutrition Diagnosis 2: Food- and nutrition-related knowledge deficit related to medical nutrition Therapy Nutrition Diagnosis 2: Food- and nutrition-related knowledge deficit related to medical nutrition Diagnosis 2: Food- and nutrition-related knowledge deficit related to medical nutrition Diagnosis 2: Food- and nutrition Diagnosis 2: Fo
information 1. With concomitant liver disease response may be delayed. J P e pticul cers Pathophysiology Normal gastric and duodenal mucosa is protected from the digestive actions of acid and pepsin by the secretion of mucus, the production of bicarbonate, the removal of excessacid by normal blood flow, and the rapid renewal and repair of
epithelial cell injury. 3 oz Oyster,3 oz Oyster,3 oz Shitakemushrooms, dried,4 Sardines, Pacific.cannedin tomato sauce Sardine
efficary before becoming clinically available. Check the size you eat. The optimal amount of protein substitute depends on the individually prescribed. However, large placebo-controlled clinical trials have failed to show benefit from antioxidants and in some
 instances have suggested adverse effects (F{asanainet a1.,2002). Short-term regulation governs consumption of food from meal to meal; long-term regulation is controlled by the availability of adipose stores and hormone responses. Total calories are mtre important than any single macronutrient. Be physically active. The key agencies are the USDA
the Department of Homeland Security (DHS) and the Federal Emergenry Management Agency (FEMA), the CDC and the Food and Drug Administration (FDA). I'm sure I won't do well with it now." In some cases clients are reluctant to accept options that may have worked for others in the past. See Total energy expenditure teenagers. See also
Inflarnrnztory bowel diseases Crohnt disease, contrast, 690f, 690t definition, 674 colloidal osmotic pressure, 148b definition, 144 colon cancer, 697-698 colonic salvage definition, 160 release, 185 combination therapy, definition
764 Combivir (lamivudine/zidor.tdine), nutritional complications, 1002t commercial programs in obesity management. SeeHealth-relatedquality of life hs-CRP.SeeC-reactive lipase) definition, 532 in fat storage, 535 lluman Genome Project, 367-368
clinical applications, 367-368 definition, 365 human growth hormone, ergogenicaid, 605t, 608-609 humanimmunodeficiency virus (I{If disease, 99r-1020 antiretroviral medications, nutritional complications, 1002-1005t body shapeal terations complicating, I 0 15 -1 0 1 6
caremanagementalgorithm, 1000f classification, 992, 993b complementary and alternative therapies, r0r6-r017 complications, with nutrition impact, 103 1 - 1 061 diarrheacomplications, 103 1 - 1 061 diarrheacomplications, 103 1 - 1 061 diarrheacomp
in recent years. The ACS (1999) defines complementary therapies as supportive methods that are used to complement evidence-based treaffnent, to help control symptoms, and to improve well-being and quality of life; and alternative therapies as treaonents that are promoted as cancer cures and are unproven or scientifically disproved methods.
However, AIDS datado not reflect the number of people living with Hf[ nor do they reflect accurate trendsof the infection. Whelton PK et al: Effect of aerobicexerciseon blood pressure: a meu-analysis of randomized controlled tials, Arm Intoz Med 1!6:493,2N2. In recent years the American Dietetic Association has published important resources that
may assist this area. Accumulation of uric acid can precipitate episodesof gout; gallstones can also occur. Consistency also affects adherence. The use of nutrients and other substances normally occurring in foods aspharmacologicor preventive agents for specific diseases and conditions also under study. Instead, determination of body composition
helps to differentiate lean muscle mass from adipose tissue and overhydration from dehydration. Gardin JM et al: Demographicsand correlatesof five-year change helps to differentiate lean muscle mass from adipose tissue and overhydration from dehydration. Gardin JM et al: Demographicsand correlatesof five-year change helps to differentiate lean muscle mass from adipose tissue and overhydration from dehydration. Gardin JM et al: Demographicsand correlatesof five-year change in echocardiographicsand correlates five-year change in
Cardiol40:529,2002. WeingartenMA et al: Dietary calciumsupplementation for preventing colorectal cancer and adenomatous polyps, Cochrane Database SystRn, CD003548,2004. For all food additive sweeteners, the FDA determines an acceptable daily intake (ADI)' defined as the amount of a food additive that can be safely
consumedon a daily basisover a person's lifetime without risk (see Chapter 11). Brousseau ME et al: Cholesterol levels and Iower risk of coronary heart disease end points in men with HDL deficienry: Veterans Affairs HDL, Cholesterol Intervention Trial,
ArteriosclerThrombVascBiol 22:1 148,2002. Liquids also empty from the stomach more rapidly than solids. Farwell DG et al: Predictors of perioperative complications in head and neck patients, Arcb OtolaryngolHead NeekSurg 128:505,2002. The best long-term indicator of adequatenutrient intake is growth. In the acutely ill but previously well-
nourished individual who is unable to resume oral alimentation within 7 days, nutrition support is used to prevent decline in nutritional health and aid in recovery until oral nourishment can be resumed. LivingstoneMBE et al: Daily energyexpenditurein free-living children: comparisonof heart-ratemonitoring with the doubly labeledwatermethod, Am
Clin Nutr 56:343,1992. Common foods may be prepared and used in different ways in various regions and tribal organizations. Only plants (including marine phytoplankton) can slmthesize omega-6 and omega-3 fatty acids. Infection with Stapbylococcus aarvus and Psailamonasamtginosais typical. Animal protein increases urinary losses of calcium
following each meal containing large amounts of animal protein and over lengthy periods of high animal protein (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium lossesbecause diet (e.g., one rich in soy protein) has litde effect on urinary calcium losses diet (e.g., one rich in soy protein) has little effect on urinary calcium losses diet (e.g., one rich in soy protein) has little effect on urinary calcium losses diet (e.g., one rich in soy protein) has little effect on urinary calcium losses diet (e.g., one rich in soy protein) has little effect on urinary calcium losses diet (e.g., one rich in soy protein) has little effect on urinary calcium losses diet (e.g., one rich in soy protein) has little effect on urinary calcium losses diet (e.g., one rich in soy protein) has little effect on urinary calcium losses diet (e.g., one rich in soy protein) has little effect on urinary calcium losses diet (e.g., one rich in soy protein) has little effect on urinary calcium losses 
Diets in Chapter 36). On the basis of their intrinsic acidity and amount consumed, fiuit juices and soft drinks are not likely to cause peptic ulcers or appreciably interfere with healing. Whereas genetics was initially concerned with today's chronic diseases that result
from the influence of multiple genes and multiple genes and multiple factors. Ratesof CHD in premenopausalwomen are low except in women with multiple risk factors. ReTEEDTNG SynDRoME Patients who require enteral or parenteral nutrition therapies are often moderately to severely malnourished. Since 2000 confidentialname-basedHfV reporting was
implementedin 35 areasGigore 38-2). Evenwith more precisedatacollection, the picture is still limited (Figore 38-3). In October 2006a; AVERI 2006a). Health providers must seek information allocated to states and cities, and areas without this q, atem changed (CDC, 2006a; AVERI 2006a). Health providers must seek information allocated to states and cities, and areas without this q, atem changed (CDC, 2006a; AVERI 2006a). Health providers must seek information allocated to states and cities, and areas without this q, atem changed (CDC, 2006a; AVERI 2006a). Health providers must seek information allocated to states and cities, and areas without this q, atem changed (CDC, 2006a; AVERI 2006a). Health providers must seek information allocated to states and cities, and areas without this q, atem changed (CDC, 2006a; AVERI 2006a). Health providers must seek information allocated to states and cities, and areas without this q, atem changed (CDC, 2006a; AVERI 2006a). Health providers must seek information allocated to states and cities, and areas without this q, atem changed (CDC, 2006a; AVERI 2006a). Health providers must seek information allocated to state and cities are allocated to st
to stayawareof epidemiologictrends and ramifications we monitoring CDC, state, and local surveillance reports at webRepors. TEE prediction equations are also listed for various overweight and obese groups, as well as for weight maintenance in obese groups, as well as for weight maintenance in obese groups, as well as for weight maintenance in obese groups, as well as for weight maintenance in obese groups, as well as for weight maintenance in obese groups, as well as for weight maintenance in obese groups.
Disorders657 Esophagitis Refluxof gastricacidand/orintestinal contents (LES) and through theloweresophagus AYoid: . H" FJ, MacGregor GA: Effect of modestsalt reduction on blood pressure: a meta-analysis of randomizedtrials: implicationsfor public health, J Hum Hlpntens 16:761,2002. Other studiesdo not show an
 adaptive metabolic response to weight loss. They were first published in 1941 and most recentyrevised between 1997 and 2002. Each revision incorporates the most recentresearch findings. In 1993 the FNB development of nutrient recommendations, called dietary reference in takes (DRI). DRIs four rypes of nutrient recommendations and approximately recommendations.
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 encompass for healthy individuals:adequateintake (AI), estimatedaverageintake @AR),RDA" and tolerableupperintakelevel(LTL). SeeShort-chain fatty acids schizoaffective disorder, nutrition, I I 13t schizog
definition, 1042 medical nutrition therapy, overview, 1044t sclerosing cholangitis, 7 15 liver damage in, Tllf S-containing amino acids, definition, 41 Screening for Heart Attack Prevention and Education (SHAPE) Guideline, 843, 847f sorry, 96-97, 97f definition, 41 Screening for Heart Attack Prevention and Education (SHAPE) Guideline, 843, 847f sorry, 96-97, 97f definition, 41 Screening for Heart Attack Prevention and Education (SHAPE) Guideline, 843, 847f sorry, 96-97, 97f definition, 41 Screening for Heart Attack Prevention and Education (SHAPE) Guideline, 843, 847f sorry, 96-97, 97f definition, 41 Screening for Heart Attack Prevention and Education (SHAPE) Guideline, 843, 847f sorry, 96-97, 97f definition, 41 Screening for Heart Attack Prevention and Education (SHAPE) Guideline, 843, 847f sorry, 96-97, 97f definition, 41 Screening for Heart Attack Prevention and Education (SHAPE) Guideline, 843, 847f sorry, 96-97, 97f definition, 97f definit
cholelithiasis, 728 secondaryhypertension, definition, 865 secondaryyosteoporosis, definition, 310 in older adulthood, nutrition as, 289 secrefin definition, 286 sedentarylifestyle, in older adulthood, 291-292 seizure(s) absence, 1088
definition, 1067 grandmal, 1087-1088 petit mal, 1087-1088 tonic-clonic, 1087-1088 definition, 1068 selective estrogenre ceptormodulator (SER-A/I) definition, 1068 selective estrogenre ceptormodulator (SER-A/I) definition, 1088 tonic-clonic, 1087-1088 definition, 1088 tonic-clonic, 1088-1088 definition, 1088 tonic-clonic, 1088-1088 definition, 1088 tonic-clonic, 1088-1088 definition, 1088 tonic-clonic, 1088-1088 definition, 1088
facts,I 303 storage,129 supplemental,efficacy,reviews,478t toxicity,13l transport,129 self-efecacy counselingand,490 definition, 489 in modi$ringresistancebehavior,503 self-eeding,in facilitatingbehavior,503 self-eeding,in facilitatingbehavior,503 self-feeding,in facilitatingbehavior,503 self-eeding,in facilitatingbehavior,5
management training, in diabetes managemenr, 794.796t nutrition educationskills for, 797b self-monitoring, definition, 489 self-monitoring, in notready-to-change counselings sessions, 499-500 senescence, 291 definition, 765 self-monitoring flood glucose (SMBG), 785 definition, 765 self-monitoring, in notready-to-change counselings sessions, 499-500 senescence, 291 definition, 765 self-monitoring flood glucose (SMBG), 785 definition, 785 785 defin
(SFMNP),303,323t senna,for weightloss,552b sensiblewater loss,147 definition, 144 sensitivity,cultural definition, 489 for multicultural counseling,491 sensorychanges,in cancer,972 sensorylosses,in older adulthood,292 L346 Index sensory-specific satiety definition, 53 3
overconsumption and, 540-541 sepsls definition, 102I metabolic responses during, 1024t SER-&I (selective estrogen receptor modulator), definition, 615 serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 536t serotonin (5-HT) actions, 7t in body weight regulation, 7t in body weight reg
10 55 +0 1,65t 1,512 1,262 1,252 35 30 25 25 1,050 819 473 20 15 10 319 313 6 6 Food * Daily values (DVs) are reference numbers based on the recomended dietary allowances. In general, leafr green vegetables and certain legumes and vegetable oils contain high amounts of vitamin K. Electrolytes are provided in reladvely modest amounts
compared with the oral diet and may require supplementation when diarrhea or drainase lossesoccur. The prediction equations include a physical activity (PA) coefficient for all groups except infants and young children (see Box 2-1). SampleMealPlan Breakfast I med oat bran muf6n (45 mg magnesium) I smallbanana Vzatp low-fatlfat-free milk Lunch
% cup pennepastawith the following: 3 oz grilledchickenbreast % cup freshcookedspinach(81 mg magnesium) 1 cup mixed saladgreenstoppedwith spinachleaves, tomatoes, shreddedlemrce 1 oz shr
mg magnesium) % cup freshpineapple Snack 1 cup soy fruit smoothie(47 mg magnesium) I ozBrazll nuts (107 mg magnesium) supplement daily. Populationsthat consume diets high in saturatedfatty acids(SFfu) have increasedblood cholesCHD incidence, and terol levels(hypercholesterolemia), mortality. The most current report of the National
CholesterolEducationProgram(NCEP) (Third Report of the Expert Panelon Detection, Evaluation, and Tieatment of High Blood Cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering total cholesterol in Adults-Adult teatment PanelIII IATP-IU) reaffirms that "lowering the Iat PanelIII IATP-IU) rea
30% (lt{CER 2002). Small studiessuggest that there may be some benEgypt and India. og and CareManagernentAlgorithm: Heart Failure). These concepts, along with other intervention model. U nsuRE-Asour-CnANGE CouNsELrNc SessroNS The only goal
in this stage of change is to build readiness to change. Weight distribution (abdominalversusgynoid) is also predictive of CHD risk, glucose tolerance, and serum lipid levels. Central adiposity (Panagiotakos, 2005). Tape the
feeding tube securelyin place and obtain Procedure: SBFTPlacement an abdominal radiograph to confirm small bowel Supplies placement. Compare Michael's measuredenergy expenditurewith that calculated by the Harris-Benedict equation. Protein: use 9/1000 ml units/1000ml C. Stimuli J Bloodoressure I Bloodflowto kidneys Juxtaglomerular
appararus in kidneys Renin Antiotensinogen AngiotensinI * * ACE $ w Adrenal Vasoconstriciton of arterioles Salt and water retention of arterioles Salt and water retention of a social s
linolenic and linoleic acids. Conversely nutrition support may be achievable but may not be warranted because of the prognosis, unacceptable risk, or the patient's right to self-determination. Wall J et al: A validation of equations for predicting the energy expenditures of hospitalized prients, J Am Diet Assoc 95245, 1995 [abstract]. There has been a great
debate about the clusteringof "metabolic risk factors" and the identification of people with varying clusters (see Clinical Insight: The Metabolic Slmdromein Chapter 9). Biguanides can be used alone or in combination with other diabetes medications. Mutations that increase the transport of iron (hereditary hemochromatosis) or copper fl4/ilson's
disease) to higher than normal levels have nutritional implications (see Chapter 31). Wu AH et al: Dietary heteroryclicaminesand microsatellite Carcinogenesis 22:1681, instability in colon adenocarcinomas, 2001. Fattystreak Tunicaadventitia Tun
(Kontiokari et al., 2005). fusuming that a patient is an appropriate candidate for parenteral nutrition, it is then necessary to choose between central and peripheral access(seeFigure 20-1). Patients require optimal calcium and vitamin D intake to slow bone loss; weight-bearing exercise and antiresorptive drug therapy are often necessary @isani and
Mullen, 20D2; Hofrman, 2005) (see Chapter 24). The %DV listed on the Nutrition Facs pmel of food labels sates the percenage of the DV provided rn one seMng. {Total energy expenditure, energy expenditure, energy expenditure, energy expenditure continuous energy expenditure.
Michael has received 900/oor more of his measurednutritional requirements. Medical Treatment Tieatment Tieatment of ESRD requires either transplantation or dialysis. 902 PART5 i MedicalNutritionTherapy laYer -l l-9el Mucus l sollayer Mucousgland FIGURE 35-3 One of the respiratory tract is to function as a protective physical barrier
againstinhaled particles and microorganisms, preventing them from gaining entrance into the body. Institute of Medicine, Food and Nutrition Board: Dietary reference intakesfor thiamin, ribofaain, niacin, aitaminBp, pantothenie aciil, biotinandcholine, WashingtonDC, 1998, NationalAcademies Press. For therapyfor unintentionalweight
lossseeTable21-7. alone as a snack. This lack of in- formation exchange also the result of health care professionals who are not routinely inquiring about the use of supplements by their patients. Persons with a high triglyceride The studyandidentification of the genes responsible for the familial forms of high result of health care professionals who are not routinely inquiring about the use of supplements by their patients.
rolesof enzymes, apolipoproteins, and receptorson cells involved in lipid metabolism. Severalforms of hyperlipidemiahavestrong genetic components. FIGURE 364 Dialysis: how it works. Garrel DR et al: Improved clinical status and length of carewith low-fat nutrition supportin burn patients, JPEN J Parenter EnternlNutr 19:482,1995. 5f0 PART3 is
Nutrition Care Process accessselection depends on several factors: (1) anticipated length of time enteral feeding will be required, (2) degree of risk for aspiration or tube displacement, (3) presence or absence of normal digestion and absorption, (4) whether or not there is a planned surgical intervention, and (5) administration issuessuch as formula
viscosity and volume. 1990s: Phenylalaninelevel of 1-6 mg/dl (60-360 pmol./L), lower than the previous level of lessthan 10 mg/dl (600 pmol./L), becomestlre new standardof care for treatment of PKU. Crackers eaten with cheese are less."iiog"tti. Furtheq these claims do not require FDA prenotification, and the manufacturer assumes responsibility for
ensuring the accuracy and truthfulness of the statement. An EAR is the amount of a nutrient with which approximately one half of individuals would have their needsmet and one half would not. Nutritionally relevant, common presenting signs and U L M O N A R YD I S E A S E symptoms of pulmonary disease include cough, early satiety,
Individualized nutrition assessment, nutrition diagnosis, and anorexia, weight loss, dyspnea (shortness of breath) during interventions such as nutrient delivery and counseling are preparing food and eating, and fatigue. Use fluoridated toothpastes. They were developed to help consmers determine if a food contains a lot or a litde of a specific nutrient.
They may say, "I want to do better, but my life is always in a turmoil since my husband died 3 years ago." An excuse that was once acceptable is reused even when it is no lonser a factor in the woman's life. 30 180 200 300 600 2000 honey, fu fruit ripens, enzyrnescleavesucroseinto glucose and fructose (invert sugal see "Disaccharidesand").
Oligosaccharides"), resulting in a sweeter taste. High-fructlsecorn ryrup is intensely weetand inexpensive. It is manufactured enzrymaically by changing the glucosein cornstarchto fructose. It is not therapy; it is simply asking questions without an agenda. International TaskForce Obesity www.iotf.org Age n c yf o r H e a l th ca re R e se a rch a n dOu
ality National Heart, Lung, and Blood Institute and Association for the Study the North American Dietetic Association for the Study the North American Dietetic Association, and Treatment of Overweight and Based Nutrition Practice in Adults Guidelines Obesity wwdahrq. This
allows parenteral feedingwithout fluid overload. Titjillo E et al: Nutrigenomics, proteomics, and the dietetics professional, / Am Diet Assoc106:403,2006. Several successive pregnancies and lactations over a relatively few years may contribute to significant bone loss by the end of the period of childbearing if nuuition is not adequate. E T E R M I N I N
GN U T R I E N T N E E O S Worldwide Guidelines Numerous standards serve as guides for planning diets and food supplies for individuals and population groups. In a third type the client discounts tlle nutrition counselor by questioning his or her personal authority and expertise. Information decodingoccursin two steps:(1) the
processof transcription, during which the enzqe ribonucleicacid polymerase (RNA poll.rnerase)converts DNA into an intermediate molecule (messenger RNA[mRNA]), and (2) a subsequent translationstep in which the informationencodedwithin the nRNA directs the assembly of amino acids into the protein molecule (messenger RNA[mRNA]), and (2) a subsequent translationstep in which the informationencodedwithin the nRNA directs the assembly of amino acids into the protein molecule (messenger RNA[mRNA]), and (2) a subsequent translationstep in which the informationencodedwithin the nRNA directs the assembly of amino acids into the protein molecule (messenger RNA[mRNA]), and (2) a subsequent translationstep in which the information acids into the protein molecule (messenger RNA[mRNA]).
One askspermission by sayrng, "Would you be willing to continue our discussionand talk about the possibility of change?" At this point, it is helpful to discussionand feelings about the current statusof dietary change about the current status feelings about the current status feelings about the possibility of change?" At this point, it is helpful to discussionand feelings about the current status feelings about
processessomewhat mediate a rapid impact from refeeding, with low levels Therefore high HDL levelsare associated of chylomicrons; VLDL remnants; and small, denseLDLs risk. Impactof Pulmonary System Disease on NutritionStatus Pulmonary diseases under the processes on NutritionStatus Pulmonary System Disease on NutritionStatus Pulmonary diseases under the processes on NutritionStatus Pulmonary disease under the processes on NutritionStatus Pulmonary diseases under the processes of th
FIGURE 35-4 Alveolar macrophagesare part of the body's composition and weight parameters nearly all medical, systemicimmune response. Macrophagesare a main defense surgical, pharmacologic, and nutrition researchstudies of the body against harmful cellular debris and peoplewith respiratory diseases. Parenteral to EnteralFeeding To begin
the transition from parenteral to enteral feeding, the initial step is to introduce a minimum amount of enteral feeding at a low rate of 30 to 40 ml/hr to establish gastrointestinal tolerance. Agrng results in diminished lung integrity. Encourage use of rylitoVsorbitol-based chewing gum and candiesimmediately following a meal or snack." Sugar-
freechewablevitamin /mineral supplements and medication should be recommended. Scientific Committee on Food (SCF): Opinion of the Scientific Committee on Food: update on the safety of aspartame, Brussels, SCF/CS/ADD /EDUL/ 222 Final, 2 002. Self-Efficacy Supporting Belief in the possibility of change is an important motivator. In the
FraminghamStudyleft ventricular hypertrophy (LVFI) wasfound to be a strong risk factor for CVD, HR and sudden death. including raisins, dates, and prunes (dried fruits are permitted if dried at home) Dessertsthat contain significant amounts of any foods high in copper Chocolate, cocoa Brewer's yeast Instant breakfastbeverages, mineral water,
alcohol$ Low (< O.l.mg/Portlon Gommonly Usedt) (May Be Eaten As Desired) Breadsand pastafrom refined flour, canned sweetpotatoes rice, regular oatrneal, cerealswith 30 g daily) in small numbers of subjects suggested a positive effect on glycemia; however, results from later studies have shown mixed effects. International Agency for Research
on Cancer (IARC): ZRC handbooksof cancerpreuention, vol 8, fittits and uegetables, Lyon, France, 2003, IARC Press. In personswith type 2 diabetes, insulin may be needed to restore glycemia to near normal. Normally these remnants, called VLDL remna.ntsor intermediate-densitylipoproteins (IDLs), which are atherogenic, are taken up by receptors on
the liver or are converted to LDLs. In metabolic ryndrome the remnants are present and atherogenic (Olufadi et al., 2006). gov/healthypeople MyPyramid htq://mypyramid.gov National Center for HealthStatistics http://www. Seeako Nutrition monitoring in, 1203. Seeabo Nutrition monitoring phases, 387 screening before, 388-390.
nutrition counseling in adolescence, 258-259 in eating disorders, 577-583, 577t, 581-582t nuffition diagnosis(es), 1201 definition, 462b in developmental disabilities, 175 in diabetes mellitus, 791, 792b in HIV disease, 101 l in nutrition careprocess, 455 nutrition-focused physical assessment, t223-t226 L338 Index nutrition
intervention, 464-466, 1202 in clinical nutrition, 462b in HIV disease, 1011 in nutrition careprocess, 457, 459 laboratory values for,
1227-1241 nutrition prescription, 465 definition, 454 Nutrition Programfor the Elderly/Area Agencieson Aging, 323t nutrition screening, 388-390 definition, 383 form for, 388f for risk, standardof carefor, 456t in adolescence, 257, 258t in crncer, 972 in HfV disease, 1010-1011, 1012f beforenutrition careprocess, 455 pediaoic form for, 390f perinatal, form
for, 389f toolsfog 389-390,391f,392-393f nutrition-specific laboratorydata definition,412 nutritron status assessment, J84 definition,383 implicarionsofselecteddrugsfor, 1242-1247 of Americans,339-340, 34lr optimal,384,384f pulmonarysystemdisease and,902,903b nutrition support,506-530 appropriate,rationale and criteria for, 507508
conditions requiring, 508t ethicaliss uesinvolved in, 527 for premarure infants, I 120-1133. See also Premarure infants, nutrition support for in Crohn's disease flare-up, 528b in headingury methods, 1036-1037 in metabolic stress, goals of, 1027 in neurologic disorders, 1077 
-107I interdisciplinaryservices, 527 post-trauma, 528-529b route selection, algorithm, 509f nutrition therapy in cancerroutes, determining, 981 medical, 450-451. CHAPTER 20 I Intervention: Enteral feeding, routine monitoring of actual infusion is necessary to
ensure compliance with the treatment plan. Many theories have been tested to explain how atherosclerosis, is a chronic, lo- cal, inflammatory responseto many risk factors, such as high levels of LDl-cholesterol, that are injurious to the arterialwall
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(Fleinecke, 2006; Badimonet al., 2006). Hence lesion formation, progression, and eventual plaquempture result from tlle release of inflammatory (e.g., tumor necrosis factor-alpha [TNF-ct], interleukin-6 [IL-6], and C-reactive protein ICRPI) and antiinflammatory cytokines (e.g., tumor necrosis factor-alpha [TNF-ct], interleukin-6 [IL-6], and C-reactive protein ICRPI) and antiinflammatory cytokines (e.g., tumor necrosis factor-alpha [TNF-ct], interleukin-6 [IL-6], and C-reactive protein ICRPI) and antiinflammatory cytokines (e.g., tumor necrosis factor-alpha [TNF-ct], interleukin-6 [IL-6], and C-reactive protein ICRPI) and antiinflammatory cytokines (e.g., tumor necrosis factor-alpha [TNF-ct], interleukin-6 [IL-6], and C-reactive protein ICRPI) and antiinflammatory cytokines (e.g., tumor necrosis factor-alpha [TNF-ct], interleukin-6 [IL-6], and C-reactive protein ICRPI) and antiinflammatory cytokines (e.g., tumor necrosis factor-alpha [TNF-ct], interleukin-6 [IL-6], and C-reactive protein ICRPI) and antiinflammatory cytokines (e.g., tumor necrosis factor-alpha [TNF-ct], interleukin-6 [IL-6], and C-reactive protein ICRPI) and antiinflammatory cytokines (e.g., tumor necrosis factor-alpha [TNF-ct], interleukin-6 [IL-6], and C-reactive protein ICRPI] a
9, IL-10) are the key proteinsthat must be balanced to prevent plaque rupture and subsequent clinicalevents (TedguiandMallat, 2006). Female role models for the obese population; even BMIs of 25 are unreasonable goals for many dieters. elEJIns
uDroJpuorlr Ber{rBjl ,r\oJ roJ eJuapha lreJJa -a.tnrsod qlr^\ uo^E .eseosrpluro{ uo a8epuec >lrcgsJo }JeJTe eqrJo selPnlsou eJeejeq]rnq 'ele;ps uDrorpuoqJJo ecJnos deegc e sr lr asnereqlperuer relndod u sr a8eln.rec 4req5 I90I 0NV S3rSU3AoUI N0 '(eOOZ ''p ra ssauearrJe3Je roJ arueprle rye.rcp1o11) crrrdurapue adoq et1l JeJo lsou e-trWs pue
unrseuSeru ',(deregr aSBsseu,a-rntcundnce ;o sruaurayddnspue teql .(5002,.lE puno; erSp.4ruorqg roJ serpnts ,&orler WVI Jo V re_relpeo5-Jeuqel$ uueuralddns Jo urruetrl pue IEJeuru 'dde:eqrertcerdorrqc'dduraqre8essutu Surpnlcur,stpuour9 snornerdeW ul WVf,Jo edlt aurospesnper{%g6 rep punoJ sluened erSledruorqg;o daa;ns V .surotdur,{suro}{curo
Jerler roJ stuetutBen (nfVC) ourorperu e^qeurotle pue f:elueur .l:olce;snesun -elduroc >lees ueryo stuarlBd dlerauaS pue pallrull ag or r?addeer8pdurorqgro; suondoluerrDBeJt oqJ {deraql freluaua1druo3 espaslq olluunaqurol fderaqluorlulnNlporpa4i Ot UffaVUC /^o3' qru'ruer)u / / | d]Aq puP aurs rpaN aA rlP Ur allv l(r elu eu al duoo io; r a} ua3llrull ag or r?addeer8pdurorqgro; suondoluerrDBeJt oqJ {deraql freluaua1druo3 espaslq olluunaqurol fderaqluorlulnNlporpa4i Ot UffaVUC /^o3' qru'ruer)u / / | d]Aq puP aurs rpaN aA rlP Ur allv l(r elu eu al duoo io; r a}
puot} pN tr 3ro'sndny',tr,ln sndn-l P3uauvJo uorlPpunoj itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJJexePlno^r^{or} iuoBenfls lueJJnc srq rseueq oslJJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJexePlno^rough itultl roJ Puetur nod ppoll sdelsteq,Lrpue 'Defqns atp dn Suuq nor( sn1uorJuerulou seop e{lw 'S pFo,,'r.tioH 'rqSrarn-ra.ro 't iuoBenfls lueJJnc srq rseueq oslJexePlno^rough itultl roJ Puetur 
tcedtut selegclPJo {slr PuEuorsuauad,(qsFI IlyrUhoH 'Z irnoS srq aSeueu ot e{IW roJ pueuruorer nor( ppo,tt ueld peur ro lerPJo adlr rery1 '1 uoder tuened. {q pecuaprae setnoS ro; r(derarpuoputnu lerlpeur or pereler tlrgeP uourrlnu pu? Using this technique requires gastrointestinal decompression, the prevention of gaseousinflation (distention) of
the gastrointestinal tract by the application of intermittent or continuous negative pressure (suction) through a nasogastric tube. J Am Coll Cardiol 42:1218,2003. The long-term nutritional effects of cancer and its treatment in children are not well documented. It is helping the client accomplish more sooner. It is not uncommon for families and
caregivers to express their fears of dying through an extreme preoccupation with eating and maintaining weight. plus rystine, requirements, by age group, 63t methylfolate vap, 824, 824f methylmalonic acidemia, 1144t, I I59-1160 definition, ll4l formulas/medical foods in managements, by age group, 63t methylmalonic acidemia, 1144t, I I59-1160 definition, ll4l formulas/medical foods in managements, by age group, 63t methylmalonic acidemia, 1144t, I I59-1160 definition, ll4l formulas/medical foods in managements, by age group, 63t methylmalonic acidemia, 1144t, I I59-1160 definition, ll4l formulas/medical foods in managements, by age group, 63t methylmalonic acidemia, 1144t, I I59-1160 definition, ll4l formulas/medical foods in managements, by age group, 63t methylmalonic acidemia, 1144t, I I59-1160 definition, ll4l formulas/medical foods in managements, by age group, 63t methylmalonic acidemia, 1144t, I I59-1160 definition, ll4l formulas/medical foods in managements, by age group, 63t methylmalonic acidemia, 1144t, I I59-1160 definition, ll4l formulas/medical foods in managements, by age group, 63t methylmalonic acidemia, 1144t, I I59-1160 definition, ll4l formulas/medical foods in managements, acidemia, acid
of, 11 5 1 t methylmalonic acid (MNIA), urinary levels, in vitamin 812 deficiency, 424 methyl mercury. iMET!;, Metabolic.equivalents.METs are multiples of an individual's resting oxygen uptakes, defined as the rate of orygen (O2) consumption of 3.5 ml of O2l min/kg body weight in aduls. Ireton-Jones C et al: Clinical pathways in home nutrition
snpporr, J Am Diet Assoc97:1003, 1997. Changes in laboratory tests may have biologic significance (e.g., patient's condition is improving) long before statistical significance is achieved. Malnutrition leading to impaired immunity placesany patient at high risk for developingrespiratory infections. Patients may have biologic significance (e.g., patient's condition is improving) long before statistical significance (e.g., patient) and the proving is achieved. Malnutrition leading to impaired immunity placesany patient at high risk for developingrespiratory infections. Patients with pulmonary disease who are hospitalized and the proving is achieved.
who are also malnourishedare likely to havelengthy says and are susceptible to increasedmorbidity and mortality. Suboptimal peakbonemass (PBM). The diet includes generous amounts of fiber and limitation of saturated fat
Guidelines and questionsthat reinforce rationality o Techniquesfor strengthening efficacy. The first step in an intervention is interviewing. Suchvariationsare thought to underlie many of the inconsistencies in the repetition therapeutic interviewing. Suchvariations are thought to underlie many of the inconsistencies in the repetition therapeutic interviewing.
deficiency in a poorly controlled (underinsulinized) exerciser results in increasesin glucose concentrations, and free fatty acid release continues with minimum uptake. If transplantation is anticipated, it is important to maintain optimal nutrition status so that the patient will be a good candidate for transplantation. Adorable pics of baby animals bring
instant happiness. In both animals and humansdeliberate efforts to starveor overfeedare followed by a rapid return to the original body weight, as though the latter constitutes "set point" that is amenable to physiologicinfluences. If this is true, someforms of obesity could be the result of an abnormally established point; however, data are not
conclusivein this area of research. In addition, food and water safety and foodborne illness issues are monitored by state and local health departments. Access Nasogastric Route For short-term enteral nutrition of up to 3 or 4 weeks, a nasogastric tube passedthrough the nose into the stomach is appropriate. In Merritt R editor: The ASPEN nutrition
npport practicemanual, ed 2, Silver Spring, Md, 2005, American Society for Parenteral and Enteral Nurition. What advice will you glve Nell about her meal planning? The rate of AIDS diagnosisfor blackwomen is 25 times that of white women and four times that of Hisoanic women (CDC, 2004). (CourtesyMemorial-SloanKenering Cancer Center, New
York, NY.) 518 PART3 Nutrition Care process The latest development in catheter technology is a peripherally inserted central catheter (PICC). What type of dental condition? Largemeals . Extended dwell catheters require a vein large enough to advance the catheter 5
to 7 inches into the vein. Once buffering action has restored pH above the critical point, remineralization can occur. Carbohydrate for Insulin Secretagogue Users During moderate-intensity exercise, glucose uptake is increased by 8 to 13 g/hr flVasserman and Zinman, 1994), and this is the basisfor t}re recommendation to add 15 g
carbohydrate for every 30 to 60 minutes of activity (depending on the intensity) over and above normal routines. Now that you are retired it is easier to eat out than to cook. Thus genesexistin slightly different forms calledalleles. Wolfe RR, Martini WZ: Changesin intermediarymetabolismin severesurgicalillness, WorldJ Surg 24:639,2000
 SalivaFunction Salivary flow clears food from around the teeth. Pancreatic enzyrr'ereplacement may be used to aid digestion and absorption, and a fat-restricted diet may be indicated. Because the primary cause of gastritis and peptic ulcers is H. Slurries work well with biscuits, cakes, graham crackers, muffins, and brownies. Eat foods rich in vitamin
C with nonheme iron sources. Continued 998 PART5 I MedicalNutritionTherapy CD4CellGountsandAssociated Gonditions-cont'd CD4 Cell Count 100-200/mm3 ----cont'd Gonditions, widespread cognitive dysfunctions Disease of the
myocardium associated with ventricular dysfunction Disease of the spinal cord Radiating pain and paresthesiasthat causemild sensoryloss and lower extremity areflexia Depends on location, lumps, fatigue, and/or pain An intestinal infection of the
esophagusthat can causesevereproblems with swallowing A virus that causescold soreson the mouth and around the eyesor can be transmitted to the genitals Headacheand fevers, malaise, nausea, fatigue, loss of appetite Cough, blood-stained sputum (hemoptysis), fever, night sweats, weight loss, chest pain, prolonged fatigue, anorexia Severechronic,
watery diarrhea (up to 15-20lday), severeweight loss, weakness, electrolyte imbalance, abdominal cramping, fever, nausea, vomiting, enlarged 11'rnphnodes Fevers, swollen glands, headaches Blindnessor visual loss (retinitis), fever, fatigue and severemealaise, weight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, colitis Fever, severeweight loss, facial edema (secondaryto adrenalitis), enteritis, facial edema (secondaryto adrenalitis),
loss/cachexia, abdominal pain, diarrhea, malabsorption, antibiotic side effects A lymphoma limited to the cranial-spinal axiswithout systemic loss (meningitis) axiswithout sy
Primary tuberculosis Cryptosporidiosis, chronic (protozoa) 0-50/mm3 Toxoplasmosis(protozoa) Disseminated(cytomegalovirus) Disseminated(my cobaaeriam auium complex Central nervous qFstemly rnphoma and Care Management Algorithm: Human Immunodeficiency \4rus Disease). Immunologic categories described for adults (seeBox 38-1)
and children (Table 38-2). SeealsoInflammatory bowel diseases definition, 673 ulcerative colitis, contrast, 690f, 690t cross-reaculty definition, 739 between latex and foods, 761, 76lb cross-sectionalstudies, 962, 963b definition, 959 CRP. The end of Ramadan is marked by the Feast of Breaking the Fast (Eid-ul-Fitr). Example: An 8-year-oldgirl who
presendyweighs 90 lb (over 95th percentile) and is 52 in tall (75th to 90th percentile). Muslims fast completely from dawn to sunset and eat only twice a daybefore dawn and after sunset. The majority of the solute load consists of nitrogenous wastes, largely the end products of protein metabolism. Ma huang (ephedra) promoters claimed
 benefits such as weight loss, increasedenerg-y, performance enhancement, and increased LBM. PUBuI0I rJ S sl aH 'lrrc a3re1E uI auols sa^{1} (sqraq puu uuaurelddns yeraurur pue 'fra;es Arrrreth cgrcedsSununsuoc;o sPrBzBt{ 'f,iecg1aarf]uo uorlelu.ro;urapr,rordol elqe eq,{eur e} elqelre.re lerp
suoFezruBSrofsolrsqa,nlqe-reasa.r"3' sr uoperuroJur;o adft rer!\ islueuelddns pue sqreq 't Jo esn eqt Surpre8erreq anr€no,( ppo,lt arl PBwtl!\ ireq wI^\ ssnrslPPlnor nod legr esn OIVSNJo s{slr pue srgaueqeW ere teqr!\ '€ lured erp a8euerupue tqSre,rn.raqarrordur dleg or lrgrqrssod? Poor nutrition and general poor health may conftibute to the
onset and severity of the q/mptoms and can delay the healing process. found in the brush border of the intestine (see Enz).rynes Chapter 1) break (digest) bonds between moleculesin 44 PARTI NutritionBasics GALACTOSE GLUCOSE Cell membrane I Galactose-1-P04 t- lrottnoe [email protected] f\(\)i Glucose6-PhosPhate 3-) H Glucose1-P04 0 Glycogen
Fructose-6phosphate @ lr-en GnidrrectionaD lLf nop -\y c Y T o Fructose-1, 6 bisphosphate phosphate phosphate Dihydroxyacetone I /,,, (*p) o$pn*on*rycerate Fructose-1-PO^ iaioe-' TL> nrp ,/ P L A s M 3-phosphoglycerate / (-P) Phospihoenolpyruvate @ F R U c T o Amino acids S E Triacylglycerol(TAG)
Cholesterol @ - J::iJ' l-Nn.t"**-l ffi -lAce,fr."o+oxaroacetate ,"ur"*ocoA T \,/ Mitochondrialrnembrane M I T o c H o N D R I u Ketones F FattYacid CoA Amino acids Citrate- I lsocitrate ,ro1 Fumarate FAD-O o,-ketoglutarate EdH rccinvlCoA S uccinate'-e' M I ATP FIGURE 3-2 Overviewof macronutrientmetabolism.Legend on oppositepage
Pectin is found in apples, citrus fruit, strawberries, and other fruits. High-fat, low-carbohydrate diets are low in dietary fiber. REr-ATroNsHIPsETWEEN N UTRITIO N AND THE PUIMoNARY YsrEM OptimalNutritionandthe
 Pulmonary System The respiratory structuresinclude the nose, phary.nx, larynx, trachea, bronchi, bronchioles, alveolarducts, and alveoli. Macronutrients In the person with stable COPD, requirements for wateq protein, fat, and carbohydrate are determined by the underlying lung disease, oxygen therapy, medications, weight status, and any acute fluid
fluctuations. Full dentures replace missing teeth and are not a perfect substitute for natural dentition. SeeEstimated energy requirement efairenz (Sustiva), nutriLional complications, 1003t EFSP (Emergenry Food and Shelter Program), 322t egg allergy, foods to avoid and substitutes in, 754b EHEC (enterohemorrhagic Escherichia coli), 327t
 Ehrenkranz gro*th chart, 1133, 1133f EHRs (electronic health records), 450 eicosanoids, qmthesis, 56f eicosapentaenoic acid (EPA) adequate, obtaining, 1106-1108 definition, 1102 dietary consumption, recommendations, I 108 in brain and nervous system function, I 1 0 4 - t1 0 5 eiection fiaction definition, 884 thiamin supplementation improving
894 elastase definition, 899 fecal, in enzfne supplementation was decreased by half. The foods found to causethe greatest difficulty for persons with complete denrures include fresh whole fruis and vegetables (e.g.
apples and carrots), hardcrusted breads, and steak. A restatement of the client's self-motivational statements assiss in setting the positive and negative aspects of change. Enteral nutrition support by nasogastric tube is indicated for selected children who are able to cooperate and who
have functional gastrointestinal tracts. Seeako Nutrition support interviewing, motivational, 495 definition, 489 intestinal brush-border enz)nne deficiencies, 687 -689 intestinal polyps, 697-698 intestinal pol
component of their care. The final steps of the nutrition care process pertain to monitoring and evaluadon, which are specific to the individual patient or client and relate to the signs and sy.mptoms identified in the assessment. The HDness. EQUALS 15 g CARBOHYDRATE, 3 g PROTEIN, 0-1 g FAf,, AND 80 CALORIES Bread Starchy Ve getables. 20% and sy.mptoms identified in the assessment.
of the recommended dietary allowance for adult men, which is 900 mcg RAE/day.) Food Liver, beef, cooked, 3 oz Liver, chicken, cooked, 3 oz Milk, fortified skim, 1 cup Egg substitute, 7+ cup VitaminA (lU) 27,185 % DallyValuef 545 tt 175 )4 < 500 284 249 226 10 6 5 5 I29O APPENDIXES
PlantSources Selected of VitaminA (fromp-Carotene) Food Carrot juice, canned, 7z cup Carrots, boiled, Vt cup Spinach, frozen, 
canned, % cup Papaya, 1 cup cubes Mango, I cup sliced Oatrneal, instant, fortified, plain, prepared with water, I cup Peas, frozen, boiled, % cup Tomato juice, canned, juice pack, 7z cup halves or slices Peach, l medium Pepper, sweet, red, raw, 1 ring (3 inches diameter by 7+inch thick) Another way to summarize important
foods is through retinol equivalents. Autor: Mahan, L.K. Idioma: Castellano Encuadernación: Tapa dura, 1160 págs Referencia: 9788491130840 Nº Edición: 2017 Mahan, L.K. Descripción: Este tratado clásico, apodado "la biblia de la nutrición", presenta los contenidos más relevantes y novedosos en el siempre ámbito de la nutrición. Because of its
stimulation of the sympathetic nervous system, patients taking sibutramine may experience cardiovascular side effects, and it is not appropriate for patients with a history of CAD and related disorders. *In addition to energy spent for the generally unscheduled activities that are pan of a normal daily Life. burnsurvivor. The [email protected]
thermolabile and has reduced activity, causinghomorysteine ro accumulate(Kang et al., 1988). Use of the glycemic index to modifi' diets and prevent and control chronic disease is under intense investigation (seeChapters 9 and 30). Of these, the most common are overweight and obesity. The window of safe consumption of vitamin A is fairly narro%
but it may be even narrower for the elderly (Anderson, 2002). Finallythetolerable upper intake level(UL) has been established for many nutrients or combined with others (not in food For from enrichmentand fortification. At L is the
highestlevelof dailynutrient intake for DietaryPlanning 339 12 { Guidelines CHAPTER Acceptable Macronutrient Distribution Ranges AMDR (Percentageof Energyas kcallday) >19 Years 1€ Years Nutrient Proteinf Carbohydrate Fat a-Linolenic acid ("2-3) { Linoleic acid ("2-3) { Lino
1000kcal = 1.1 cup equiv per 1000kcal > 0.4 cup equiv per 1000kcal > 1.5 oz equiv per 
orange vegetablesor legumes No grains No milk No meat or beans No oil >-15"/"of energy >2 g per 1000kcal >50% of enerry From U.S. Department of Agriculture, Center for Nutrition Policy and Promotion: Healtlry eating irulex 2005, available at w.cnpp.usda.gov, 16,2007. Their use has shortened the period of pancytopenia
(reduction in the cellular components of the blood), when patiens are at risk for bleeding and serious infections that may lead to sepsis. These advances, along with improved prophylactic antibiotic regimens that are relatively eaqFto administer, have allowed patiens to receive autologous marrow transplantation in the outpatient setting. Therefore
 homocysteine screening or treatrnent with B vitamins is not recommended on the basis of the evidence to date. Use of loose-fittinggarnents by obeseor normal-weightpersonsis alsothought to decreasethe risk ofreflux. Use of tobacco products is contraindicated with reflux. The infection does not resolve spontaneously, and risks of complications
 increase with duration of the infection. Some proteins need further post-translational processing before they are active, such as occurs with glycoproteins and with proenzyrnes and prohormones that must be cleaved before they are active. WeesrrEs USeFUL American Dietetic Association v'ww.eatright.org for NutritionPolicy Center andPromotion
USDA www.usda.gov/cnpp/ for Disease Centers NHANES Control, Survey www.cdc.govlnchs/nhanes.htm intakeof iron,zinc, Nutrition Diagnosis: Inadequate of animalfoodsas to omission and Adverse Prognosis in
Hypertension Risk Factors Cardiac Black race Youth Male gender Persistentdiastolicpressure I 15 mm Hg Smoking Diabetes mellitus Hypercholesterolemia Obesity Excessivealcohol intake Evidence of end organ damage Cardiac enlargement Electrocardiographic signs of ischemia or left ventricular strain Myocardial infarction Congestiveheart
failure Eyes Retinal exudatesand hemorrhages Papilledema Renal Impaired renal function Nervous system Cerebrovascularaccident Fisher ND, Williams GH: Hlpertensive vasculardisease. In Kasper DL et al., editors: Harison's principles of internal med.icine, ed 16, New York, 2005, McGraw-Hill. Manipulative and body-based methods: massage, yoga
reflexology o Energy therapies: veritable, measurable energy including sound, light, energy; putative, including energy that has yet to be measured such as biofields (ltccAM,2006). Carbohydrate sources used in formulas are pureed fruits and vegetables, corn syrup solids, corn and tapioca starch hydrolysates, maltodextrins, sucrose, fructose, and
glucose. This allows the client to stop and reflect on what was said. Extrinsic rewards Template for Change . NIH recommendations promote calorie deficits that result in a loss of about 0.5 to 1 lb per week for persons with a BMI of 27 to 35, and I to 2 lb per week for those with BMIs greater than J5. DeChicco RS, SteigerE: Parenteralnutrition in
 medical/surgical oncology. In Elliott L et al, editors: Theclinicalguideto oncode nutrition, ed 2, Chicago, 2006, American Dietetic Association. Hedley A et al: Prevalence of overweight and obesiry among U.S. children, adolescents and vomiting in the patient
with cancer, Oncoll {urs Forum 23:1409,1996. This molecule is secreted into the bone matrix, where tlle roles of osteocalcin are not well characterized, except that it appears to be involved in the mineralization process-perhaps acting to stop the formation of crystals to prevent overmineralization. risk, Ordovas JM: Nutrigenetics, plasmalipids and
cardiovascular 106:1074,2006. Ifdiuretics are also used, it is important to know ifpotassium is retained or depleted, and it should be monitored. Mayes! GottschlichMN[: Burns and wound healine.In MataraseLE, GottschlichMN[: Burns a
are part of the liver's phase I and phase I and phase II detoxification system; the SOD genes code for proteins that dismantle the reactive oxygen speciessuperoxide. Each of these geneshas nutritional implications, and variants have been identified that result in decreased detoxification. Overall, health guidelines that reinforce the importance of a balanced diet
based on the MyPyramid Food Guidance system should be part of the routine health counseling given to all patients. Epidemiologic studies (clinical or community trials) have delineated the risk factors associated with C\lD development, which has been a major
breakthrough for prevention and rreatment. It is proposed that 554 PART4 | Nutritionfor HealthandFitness Pouch (1G-15mLcapacity) Inflatable siliconeband A B Smallintestine BYPASS ROUX-EN-Y GASTRIC (Greenville GastricBypass) Pouch (100-200mL capacity) Duodenum Smallintestine D VERTICAL BANDED GASTROPLASTY Alimentary limb
(250cm) Commonlimb (50-100cm of ileum) BILIOPANCREATIC DIVERSION (withduodenalswitch) FIGURE21-5 Bariatricsurseries. Permissible fowl are chicken, turkey, goose, pheasant, and duck. Becauseuse of the lower part of the stomach is omitted, the gastric bypass patient may also have dumping syndrome (see Chapter 26) as food empties
quickly into the duodenum. (USDHI (A) U.S.Department of HealthandHumanServices Institutesof Health: 5 a day, 2005a, , accessed December 1, 2005. These children should be carefirly assessed for any underlying syndromes (genetic, endocrinologic, or psychologic) or secondary complications such as hypertension, dyslipidemias, sleepapnea, and
orthopedic problems. For example, the body will absorb more iron from foods when iron stores are low and will absorb less when stores are sufficient. Suter PM et al: Reversalof protein-boundvitamin B12 malabsorptionwith antibioticsin atrophicgastriris, Gastoenterolog l0l: 1039,1991. The nucleotidesare arrangedside by side, and it is this linear
arrangement that determines the particular information encodedin a stretch of DNA. A AlC, definition, 764 AlC tests, in assessment of glycemiccontrol, 774 AAfu. In light of the Dietary Guidelines for Americans and the MyPy'ramid Food Guidance system, both of which support a diet high in carbohydrates, it is important to be aware of the cariogenicity
of foods that can affect the potential for bacterial action on fermentable carbohydrates. Individuals should be aware of the form of food consumed and the frequency of intake in order to integrate positive diet and oral hygiene habits to help improve oral health status. Excessivedietary intake of fluoride can occur as a result of long-term use of infant
formulas in powder form that are reconstrituted with fluoridated water. Vitamin C is principally known as a water-soluble andoxidant, and it prevents scuny. Medicaland SurgicalManagement of Ulcers Peptic Ultrs. re O ruupv .g66l,t:tzl ts{1uuy 's002 'uoDeeyxotappcrper ua8lxoJo eloJ eqt uo se nJedsred :spunodurooleterupue snrllue prolerunegg:p re f
qreszy l,!\,n,am|t[tout14:tr{ uouue] lrrdy passaoce'3ro'l8ololeurnar{J. Koshering involves soaking meat in water, salting it thoroughly, allowing it to drain, and then washing it three times to remove the salt. Patientswith higher presurgicalBMIs are at greaterrisk for postsurgicalcomplications. Another possible nutritionally related side effect of
medications or chronic coughing is gastroesophagealreflux (see Chapter 26). Among the more common problems that have been reported since the passage among products; inadequate information about how a company's herbs are grown and
processed; and poor and Integrative Gare 481 Dietary Supplementation CHAPTER 18: Intervention: Developresource library Reference text Websites Knowledgeable health Careproviders Assessment Individual dietary explanation careproviders and poor and Integrative Gare 481 Dietary Supplementation CHAPTER 18: Intervention: Developresource library Reference text Websites Knowledgeable health Careproviders Assessment Individual dietary explanation careproviders and intervention careproviders are careproviders and careproviders are careproviders are careproviders and careproviders are careproviders
 Documentation. It is easyfor miscommunication to occur when individuals of different cultures interact with one another. and IDLs. Low-Density Lipoprotein Low-density lipoprotein (LDL) is the primary cholesterol carrier in blood and is formed by the breakdown of \{LDL. StopeckA: Links betweenHelicobaaer pylon infecrion,cobalamin deficiency and interact with one another.
permiciousanemia, Bditorial] Arch Intern Med 160:1229,2000. Beyond evaluating the efficary of dietary supplements, safety issuesmust also be addressed. Nthough select safety issuesmust also be addressed. While
smoking impairs the formation of granulomasin Crohn's disease(Leong et al., 2006), passive and active smoking exposure in childhood Gy rg" 10 to 15) seemsto be associated with a particular disease and its DNA sequence, its protein product, and the
function of its protein product in promoting health or illness provides the basis for diagnostic assays. For example, tumors that appear identical physically can be distinguished by their genetics, biochemistry, metabolism, and other aspects of nutrition
science. A number of overviewsof genomicsandits applications to nutrition areavailable (Afrnan and Miiller, 2006; Corellaand Ordovas, 2005; DeBusket al., 2005; DeBusket al., 2005; DeBusket al., 2005; Miiller and Kersten, 2004; Kauwell 2005; Miiller and Kersten, 2004; Corellaand Ordovas, 2006; Corellaand
lakes, and oceans) and in the flesh of seafood in these waters (JSFDA/EPA, 2004). Identif ing the advantages and disadvantages and disadvantages and disadvantages of modif ing a behavior, or developing discrepancy, is a crucial process in making changes. The amenorrhea that accompanies excessiveweight loss seen in patients with anorexia nervosa or in individuals who participate in
high-intensity sports, dance, or other forms of exercise has the menopause. BMD in amenorrheic athletes has been measured at levels 250/oto 400/o below control levels. The purpose of assessmentis to identi$, the client's stage of change and to provide appropriate help in facilitating change. This fluid is then
withdrawn and discarded, and new solution is added. Insulin has been administered. PalaciosC: The role of nutrients in bone health, ftom A.toZ, Crit Rn FoodSciNutr 46:621,2006. Medication side effects, fewer dietary restrictions, and the lack ofphysical exercise can all contribute to posttransplant weight gain. q, !! E G g,= IH EG Jg o; E r9?
Understandcultural factors 3. I Katy G. With the high prevalence of obesity, physical activity has become a high priority for CHD prevention. Because of the different sites of action, the medications can be used alone or in combination. This treaument regimen is followed by fV infusion of hematopoietic cells from the individual (autologous) or from a
symptomsQrlilssonet il.,2004). Hajjar I, Kotchen TA: tends in prevalence, awareness, treatment and control of hlpertensionin the United States, 1988-2000, JAMA 290:199,2003. Chain length and extent of saturation contribute to the melting temperature of a fat. medication, and dietary. SeeBranched-chain amino acids BE (Barrett's esophagus)
definition, 654 Beckwith-Wiedemann slmdrome, 373 BED. Despite the increase in glucose uptake by muscles during exercise, glucose levels change litde in individuals without diabetes. Resistanceand denial get in the way of meeting behavioral goals. Tw1rmanD: Nutritional management of the critically ill neurologic patient, Crit CareClin 13:39,1997
He also strength trains twice each week. McMullen AH et al: Impact of pregnancy on women with cystic fibrosis, Cbest 129:706, 2006. Blood lipid levels decline as body weight decreases. Apathy . Those who serve populations at the greatest risk for foodborne illness have a special need to be involved in the network of food safety education and to
communicate this information to their clients. Careful label reading is important to avoid or minimize the use of such products. In the United States and Canada iodized salt contains 77 mcg of iodine per gram of salt, amino 1000
contain required to make up are amino acids which that specift codons G, guanine; thymine; A, adenine; thymine; th
American Dietetic Association: oral health and nutrition, J Am Diet Association: oral health and nutrition, J Am Diet Association with the catheter is inserted into a vein in the antecubital area of the arm and threaded into the subclavianvein with the catheter tip placed in the superior vena cava. Nonphysician trained professionals can
inseft a PICC, whereas placement of a tunneled catheter is a surgical procedure (Ifuzywda et al., 2005). Witte KK et al: The effect of micronutrient supplementation quality of life and left ventricularfunction in elderly patients with chronic heart failure, Eur Hean J 26:2238,2005. Counseling involves studying the client's feelings, thoughts, beliefs, and
attitudes and experiences, creating a strong connection, which allows guidance on the challenging ourney of behavioral change. Dodd, MS, RD, FADA Adjunct fusistant Professor Department of Sports Medicine and Nutrition School Health and Rehabilitation Sciences University of Pittsburgh, Pennsylvania LisaDorf manner of Sports Medicine and Nutrition School Health and Rehabilitation Sciences University of Pittsburgh, Pennsylvania LisaDorf manner of Sports Medicine and Nutrition School Health and Rehabilitation Sciences University of Pittsburgh, Pennsylvania LisaDorf manner of Sports Medicine and Nutrition School Health and Rehabilitation Sciences University of Pittsburgh, Pennsylvania LisaDorf manner of Sports Medicine and Nutrition School Health and Rehabilitation Sciences University of Pittsburgh, Pennsylvania LisaDorf manner of Sports Medicine and Nutrition School Health and Rehabilitation Sciences University of Pittsburgh, Pennsylvania LisaDorf manner of Sports Medicine and Nutrition School Health and Rehabilitation Sciences University of Pittsburgh, Pennsylvania LisaDorf manner of Sports Medicine and Nutrition School Health and Rehabilitation Sciences University of Pittsburgh, Pennsylvania LisaDorf manner of Sports Medicine and Nutrition Sciences University of Pittsburgh, Pennsylvania LisaDorf manner of Sports Medicine and Nutrition Sciences University of Pittsburgh and Nutrition Sciences University
DL,M H C Adjunct Professor Department of ExerciseScience University of Miami Miami, Florida Kristine D uncanM, S,RDC, DE LeadEducator Life QuestDepartment St. JosephHospital Bellingham, Washington; Adjunct Instructor SkagitValley College Mt. Vernon, Wash
Products Association Washington, DC Miria mErich M, S, RD, COEL, DN Senior Clinical Dietitian Department of Nutrition Brighamand Women's Hospital Boston, Massachusetts Ytl Viii CONTRTBUTORS Marcy Fenton, M5, RO Office of AIDS Programs and Poliry Los Angeles County Department of Public Health Los Angeles, California Sharo Angeles, California Sharo Angeles County Department of Public Health Los Angeles, California Sharo Angeles, Cal
u c h M t , A , R S , C D Nutritionist Centeron Human DevelopmentandDisability University of Washington M a r i o nJ . All products must display the following disclaimer: "This statement has not been evaluated by the Food and Drug Administration. GallagherD et al: Organ-tissuemassmeasurementallows modeling of REE and
 metabolicallyactivefrssuemass, Am J PhysiolEnd.orinolMetabol275:E249,1998' GastineauCF: Ncohol and calories, Mayo Clin Proc5l(2):88, t976. pylori. In humans approximately 3 billion nucleotides that encodes the information for synthesizing protein. Mayor Clin Proc5l(2):88, t976.
huang is a central nervous system stimulant; it increases blood pressure and heart rate Chitosan: These indigestible compounds are over-theand is hazardous to those with heart ailments, diabetes, hycounter weight-loss agents. Sufficient protein (i.e., 1.2 to 1.7 g/kg of dry body weight) is necessary to maintain or restore lung and muscle strength, as
 well as to promote immune function. Cardiol95(suppl): GumsJ: Magnesiumin cardiovascularand other disorders, Am J Heahh SystPharmacol61:1 569, 2004. When necessary the doctor may remove the tonsils in an FIGURE26-2 llatal hernia. (Nlodifudfron Price SA, Wilson processes, clinical concepts of disease IM: Pathophysiology: ed6,
St.Louis, 2003, MotU. Nutritional factors such as maternal diet during pregnancy, diet during infanqr and toddlerhood, and obesity in adolescentsand adults have been hypothesized to be implicated in asthma. ed 8, editors: Modernnutrition in heabbanddisease, Philadelphia, 1994, Lea & Febiger. Rehabilitation and Physical Activity Rehabilitation is an
important part of cancer care. E6 A> OE s* == =.9 EH o; 5 6 9 L232 APPENDIXES j E q I 6 qo EO >! F m:.t;;r; o':6 o oo. Because some patients may have significant gastric oudet obstmction or bezoars, chewing thoroughly and avoiding foods with skins that are difficult to break down is advisable, especiallyin persons with dentures or missing teeth
The purpose of establishingthe NWCR is to identify the coffrmon characteristics of those who succeedin long-term weight loss maintenance. There is very little similarity in how these individuals of recent epidemiologic studies suggest that
excessiveretinal consumption, but not from carotenoids per se' may contribute to hip fractures (Feskanich et al., 2002; Michaelsson et al., 2002; Michaelsson et al., 2003; Wengreen et al., 2003; Wengreen et al., 2004). A variety of potential labeling approaches are used by the dietary supplement industry to market supplements. Depletion of body stores of thiamin can happen
rapidly, within 7 to 8 weeks, especially in alcoholics. Otherwise effort and expensemay not provide the expected results. PFSAP conducts food safety activities concerning meat, poultry, and egg inspection and provides laboratory support, research, and education on outbreaksoffoodborne illness. If central accessis needed for other reasons such as
hemodynamic monitoring, drawing blood samples, or giving medications, multiple-lumen catheters are available. Dietary intakes of chromium cannot be reliably determined because the content of the mineral in foods is substantially affected by agricultural and manufacturing processes and food-composition databases in adequate. See also
Supplements integrative medicine and,47l-475. The unabsorbed fatty acids also bind calcium to form soaps, thus making less calcium in soluble form available to bind oxalate and allowing for increased oxalate absorption from the gut (see Chapter 27). After the initial PEG tube hasbeenused successfully and the abdominal stoma site healed, it can be
replacedwith a "low-profile" devicethat allowsthe patientmore freedomof movementand convenience, such as easein showeringor wearingtight clothing. It is also possible to place a percutaneously; however, this procedure requires a higher degree of skill and carries greaterrisk (Kirby et al., 1998; Shikeand and carries greater and convenience, such as easein showering and carries greater and convenience procedure requires a higher degree of skill and carries greater risk (Kirby et al., 1998; Shikeand and carries greater risk (Kirby et al., 1998; Shikeand and carries greater risk).
Bloch, 1998). These organisms are somewhat resistant to the acidic medium of the stomach. The Jewish dietary laws are biblical ordinances that include rules regarding food, chiefly about the selection, slaughter, and preparation of meat. They help individuals facing similar problems to the acidic medium of the stomach. The Jewish dietary laws are biblical ordinances that include rules regarding food, chiefly about the selection, slaughter, and preparation of meat.
studies with different forms and combinations of probiotics are wortfiwhile. It is unknown whether freeJiving individualscan maintain suchhigh levels in adulthood (Rocchin
2002) and to an increasing incidence of We 2 diabetes in childhood (Balagopal, 2006), overweight children should be weight maintenance or a slowing of the rate of weight gain. Goldman A et al: S1'rnptomsin children/young people with
progressivemalignant disease: United Kingdom Children's Cancer Study Group/Paediatric Oncology Nurses Forum strvey, PediatricsI 17(6):el 179, 2006. PsoterWJ et al: Associationsof ethnicity/raceand socioeconomic statuswith early childhoodcariespaLterns, J PublicHeahh Dentisny66:23,2006. A low-calorie diet, increased physical activity, and
lifestyle modification. Serum ammonia level may not be a reliable indicator of protein tolerance or of the development of encephalopathy (see Chapter 28). Indications for enteral and parenteral nutrition are generally the same for older patients as they are for younger adults. Mineo TC et al: Bone mineral densityimprovementafter lung volume
reduction surgery for severeemphysema, Clest 127:1960,2005. If the client is not ready to change, respectful acknowledgment of this decisionis important. He enjoys the competitive nature of his job, travels a lot, and is knowledgeable about health care. The richest dietary sources of iron are from: Oysters Liver Lean red meat (especially beef) Poultry.
dark red meat Tirna Salmon Iron-fortified cereals Dried beans Whole grains Eggs (especially egg yollcs) Dried fruits Reasonable amounts: lamb, pork, and shellfish Iron from nonheme sources (as in vegetables, fruits, grains, and supplements) is harder for the body to absorb. CostainL, Croker H: Helping individuals to help themselves, ProcNutr
Soc64(1):89,2005. Hemodialysis usually requires treatment of 3 to 5 hours three times per week (Figure 36-5), but newer therapies are changing the times required. Appel LJ et al: Dietary approaches to prevent and treat hipertension: a scientific statement from the American Heart Association, Hypmenion 47: 296, 2006. Biologically
basedtherapies:botanicals, dietary supplements, vitamins, minerals. C H A P T E R2 0 i Intervention: Enteral and ParenteralNutrition Support 525 surgery or trauma. Weight-losssurgerycan improve severalof the obesityrelated diseases or comorbidites, including hypertension, type 2 diabetes mellitus, osteoarthritis, backpain,
dyslipnonalcoholicsteatohepatitis, and idemia,cardiomyopathy, sleep apnea. Bariatric surgery also improves self-image and employability and depression (Sugerman, 2001; Dixon et al.. 2003). Nuuition support requires concentrated parenteral nutrients, judicious fluid and electrolyte management, close monitoring, and adjustment of macronutrients and
micronutrients based on the tolerance and response of the individual patient. .de HO 9= HA HV k6,9? Patients on daily dialysis at home typically FIGURE 35-3 Tlpes of accessfor hemodialysis. 'An expiration date. Two drugs in this category fenfluramine (commonly used in combination with phentermine and known as fen-phen) and dexfenfluramine
were removed from the market in 1997 after concerns were raised regarding the possible side effects of cardiac vah'ulopathy, regurgitation, and primary pulmonary hypertension. They produce a lower glycemic response and have a lower caloric content than sucrose and other carbohydrates. The optimal treatment plan requires interdisciplinary
collaboration that 508 PART 3 I NutritionGareprocess Gonditions ThatOftenRequire NutritionSupport Recommended Route of Feeding Condition Typical Disorders Enteral nutrition Impairednutrientingestion Neurologic disorders Enteral nutrition Impairednutrientingestion Neurologic disorders Enteral nutritionSupport Recommended Route of Feeding Conditions ThatOftenRequire NutritionSupport Recommended Route Offer NutritionSupport Recommended Route O
brain injury Anorexia and wasting with severeeating disorder Illperemesis of pregnanry Hypermetabolic statessuch as with burns Comatosestates Anorexia in congestiveheart failure, cance! COPD, ED Congenital hean disease Impaired intake after orofacial surgery or injury Spinal cord injury Severegastroparesis Inborn errors of metabolism Crohn's
disease Short bowel syndrome with minimum resection Cystic fibrosis Failure to thrive Cancer Sepsis Cerebral palsy Myasthenia gravis Short bowel syndrome-major resectron Severeacute pancreatitis Severeinflammatory bowel disease Small bowel ischemia Intestinal atresia Severeinflammatory bowel disease Small bowel syndrome-major resectron Severeacute pancreatitis Severeinflammatory bowel disease Small bowel ischemia Intestinal atresia Severeinflammatory bowel disease International Atresia Severeinflammatory 
Major trauma or burns Bone marrow transplantation Acute respiratory failure with ventilator dependenry and gastrointestinalmalfunction Severewasting in renal failure with dialysis Small bowel transplantation, metabolism Severewasting or
depressed growth Parenteralnutrition Gastrointestinal incompetenry Critical illness with poor enteral toleranceor accessibiliry IIDS, Acquired immune deficiencyqmdrome; COPD, chronic obstructive pulmonary disease; ED, eating disorde4 HIV, human immunodeficienryvirus is closely aligned with the overall patient care plan. Both apo C and apo E on
HDL are transferredto chylomicrons. Apo E helps receptorsmetabolizechylomicron remnantsand also inhibits appetite (Gotoh et al., 2006). Recendy two new injectable medications-exenatide and pramlintide-have become available for use in combination therapies. Multiple Lumen Tubes Gasuojejunal dual tubes are available for either endoscopic or
surgical placement. What are Jerome's fluid and electrolyte requirements in the first 5 days after surgeryl 2. StagnoSJ, et al: Bioethics:communication and decision-making 27:94,2000. Although the energy value of each nutrient is known precisely, only a few foods such as oils and sugars are made up of a single nutrient. Over 10 million endoscopies and
surgical procedures involving the gastrointestinal (GI) tract are performed each year flVoodell and Cherry 2004). Experience with the series of hurricanes in 2005 emphasizesthe need to provide accessto a safe food and water supply in emergencies of hurricanes in 2005 emphasizes the need to provide accessto a safe food and water supply in emergencies of hurricanes in 2005 emphasizes the need to provide access to a safe food and water supply in emergencies of hurricanes in 2005 emphasizes the need to provide access to a safe food and water supply in emergencies and disasters.
their environment, knowing available community and state food and nutrition resources' and participating in coordination and delivery of relief to victims of the disaster. The acid secretoryresponseto gastrin or acetylcholineis increased considerably. Smoking also impairs the ability of cimetidine and other drugs to lower the overnight acid secretory
that is thought to play a key role in ulcerogenesis. Nicotine is responsible for many of the effects of tobacco use; but increased exposure to hydrocarbons, oxygen radicals, and a number of other substances is thought to also contribute to the overall effects. Finally, smoking impairs sponraneous healing and increases the risk and rapidity of ulcer
recurrence, as well as the likelihood that the ulcer will perforate and require surgery. Three basic steps are common to metabolic therapy: detoxification, strengthening of the immune system, and the use of special modalities to attack cancer. In Gotschlich Mill et al, editors: Nutition suppnl dieteticscore curriaium, Silver Spring, Md, 1993, American
Society for Parenteral and Enteral Nutrition. Not only should all dietary supplements be reviewed, but it is recommended that patients bring all supplements bring all supplements into the clinic to be evaluated. In this way the health care provider can review dose, dosageform, additive sourcesof the same nutrient or botanical, frequency of use, rationale for use, any
identified side effects, and the patient-perceived efficacy of each supplement. Providea palatableandattractivediet Algorithm content developedbyJohnJ.B. Anderson, PhD, and Sanford C, Garner, PhD, 2000. 'vggg7, qllaaq ruo{ uo \14,tquaoalsg:seseesrc ln\puuq uD{s pue srlrrluvJo e]ntnsul IBUoDBN puE lBtele{solnrsnw} 't00 pesseJJe,,ro3.qru'srueru
Z '^\,nll ruo.g 'qquaq u0 rulpuaq ,sltt.tqgu ptolrrunaq[ isasees(I ur{s pue IEtale{soFcsnw pue snrrrluvJo eln]Dsul IeuonEN ' [ 00 Z pesseJJe'ao3'qru.srueru.,tr.r,r woq 'qqoaq uo wlpuaq 'msolautaql.ttasndnl utua$fg:saseesrc ur{s pu? National Center for Complementary and Alternative Medicine OfCCAM) website: accessedMay 30, 2006. Garner, PhD
Seealso Amino acids; Protein(s) carbohydrates as,42-50. You have an appointment with Rick during his next sessionat rhe Outpatient Pulmonary Rehabiliation Program. Level at the Molecular Disease Insight into disease at the molecular level has been among the major advances of genetic research and its applications to health care, and form the
majority of situations related to nutritional genomics. What topics would you cover? What educational techniques would you use? She also is attracted to the use of A nuuition history and assessmentshould always address the patient's use of alternative therapies (see Chapter 18). If an animal is slaughtered improperly, the meat becomes haram, or
forbidden. Often clients show evidence of not following the nutrition counselor's advice. Some obesepersons who fail to lose weight on a diet they state is low in calories actually are consuming more energy than they report and overestimate their physical activity levels. As tolerated, registereddietitianto advancefeeding and adjustwaterto meet goal
rates. :'r::. Surgical intervention was planned, but becauseof his history of a 30Jb weight loss over 2 montls, preoperative parenteral nutrition was initiated, with surgery scheduledfor his fifth day of hospitalization. Its mechanisms of action include antimicrobial activity against S. only a small decline in BMD. This starchrapidly thickens, making it
usefirlfor instant puddinp, saladdressings, pie fillings, gravies, and babyfood. Further, only a few foods have been tested for oxalate bioavailability. With negligibleurine oulput, significant contributions to total body water output include emesisand diarrhea, body cavity drains, and skin and respiratorylosses. If fever is present, skin lossescan be excessively
 whereasif the patient is on humidified air, almostno respiratorylossesoccur. Compromised masticatory function, from partial or complete edentulism or complete dentures, may have a negative impact on food choices, resulting in decreasedintake of whole grains, fruits, and vegetables (Nowjack-Raymer and Sheiham, 2003). What are some problem
recognition questions? One drug may have the intended effects the 3 billion nucleotidesthat make up human DNA; (2) on one person, be ineffective for another person, and acidentifying the protein products of each of these genes tually be harmful to a third person. He has a body mass index (BMI) of 32 and a family history of heart disease. He has
come to you for adviceon increasinghis calcium intake. The classic sign of a vitamin K deficiency is a prolonged prothrombin time, which increases the risk of sponaneous hemorrhage. What are the goals of his treatment? 1295 APPENDIXES Selected FoodSources of Calcium-cont'd Food Milligramsper Serving o/oDaily )) 54 ).) 5.4 Value* Fruit
Orange, I med Dried figs, 2 med 300 30 100 300 30 fn z Graling Amaranth, raw, Vzcup Whole wheat flour, I cup 150 40 t5 4 Shrimp, small, dried, I oz Dried fish, smelt, 2 Tbsp Seaweed, dry (hijiki),. Radiation therapy of the head and neck area and chemotherapeutic agents can affect the quantity and quality of saliva and the integrity of the oral
mucosa. madon that damagesthe glomerular barrier to blood cells. Pyridoxine Tyrosine \.v Phenylalanine Serine ^,.^^ a.\ Ascorbicacid * Glyoxylate erv.in.( . 990 PART5 | MedicalNutritionTherapy Thompson INI et al: Phase III prostate cancer prevention trials: are the costs justified? J Clin Oncol238161,2005. Although the inability to gain weight can
also be a problem, underweight is usually secondary to another disease state. and Peptic UlcerDisease Gastritis and peptic ulcers may resultwhen infectious, chemical, or neural abnormalities disrupt mucosal integrity of the stomach. Historically these patiens received dies high in protein (up to 1.5 g/kg/day) in an attempr ro
increaseserum albumin and prevent protein malnutrition. Approximately 25,000genes code for proteins that perform most lifefunctions reded to direct their activities are contained within the chemical deoxyribonucleic acid (DNA). In the case of lactose
the proteins required to use lactose as an energ'y source are induced by transcriptional regulation of the genes that code for the lactose into glucose and galactose. Box 20-7 presents criteria to be considered when selecting candidates for home nutrition support. in obesiry management, 551
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small bowel feeding tubes (SBFIs), placement of 51lb small for gestationalage (SGA), 1118 definition, 1117 small intestine bacterial overgrowth, 700 d i g e s t i o n ,1 0 - 1 1 digestive processesin, 3-4 diseases, 681-686. HabedankD et al: Reversibility of cardiaccachexiaafter heart 24:1757, 2005. Other factors related to the
increased incidence of this decay pattern are age, lack of fluoridated water, poor oral hygiene practices, decreased saliva, and frequent eating of fermentable carbohydrates (Siukosaari et al-.,2005). Broccoli Strawberries Grapefruit Cabbage Spinach and collard greens If you drink coffee or tea, do so between meals rather than with a meal
slrrslusgJaru atll asnuorduroo uego slueuurcdrut cr€oloJneu eJeAeS 'xaldruoc sI asBOSIP cr€olornau grr.u nuaFed go tueure8rueru leuorllrnu eqJ 'spueurep Jlloqcleru teeru ol lrlyqeur ue ur llnseJ ueJ dun agr Suop ders tlue * uelqord e snqr lperrnb -eJ eJE uralsds snolJeu erp 10 srred dueru ',le,rnJaJJe>luJJP puB lee oJ'eJuEIEg JlToqelalu ulslulsru 01
sljojjeIBjnlBu s,luanrd aqt eru.ttrS8e leut sr,rer8 eruatpst. {ur ro (drpedor -nau Surleurlar (ruap parmbce z(luoruuroc rsoul agr) aruojP -u. {s arrcg-ulelllnC sB qcns sjepJosIP '{puyg 'Suneeje^o jo BrxeJoue se luese-rd leur araq
suolsel 6anes pue re5unq JoJ JelueJ ftorep5a.r erp sr snu€letpodr(q eql esneJeg 'stsou8rtp erp ol pDuasse sr enuerreuoddq laraq lupt.rodurr sI sntuls arun 'uortecqduroc E uogo sr euorrrJoq -lo Jo uoneJeplsuoc pue 'frrme 'p1eg uego 'sde,r,r.qled pnslt erp ot
llturrxord eqf;o esneJag 'uon lensrrr -rp5ers.{p auouuoq cnarnlppue pue 'plordqt 'pcrJrocou -eJpE ot f*puocas seBIIeuJouqE clloqeleur pue e{orrcala apnlJur deur reqr suon?lsoJlueur crtuatsr{sdq pappraq uer -Jo f:etrnrld etp Jo suor$T pue pue13 ore snurepqrod,(q 'feuercg;nsur ftlmse^ 'aceds suolsel sseru pue egr;o prnprda 'spr8uruaru
cruorgr'(frprec ctSolornau Pellq-PInF) xul.rds lueruoaoruen5uo1 ProlssruoPrel]ourels'z snrzadera'1 xege.rq8no3 '7 uoB[un] lBnxes en8uol;o p[nR Jorratsoduo atsea uonesuesIEro pue 'psso18'pre1e4 xagar cr]eqdaJolmoroJ rndut pue uolterelarrB pBeqpue 3urree11 an5uot;o sp[r{r o^rt JorJetueuo ersul 'Z ured prceq '1 euoN .I '&r,rnce
IeuBseluroDse8'eleruee11 xaEal 5Bc ' 7 Sur.trolprng . recommendschangingdressingsevery7 daysin stablepatients (CDC, 2002). Tirbing is usuallychangedevery24 to 72 hours, depending on lipid contenrof the solution. With signs of infection the cathetershould be removed and the cath
is the most common tfeatment for cancer of the stomach, although chemotherapy and radiation therapy can be used before or after surgery to improve survival and control disease(Layke and Lopez, 2004). Preferably indirect calorimetry or doubly labeled water methods are used to determine energy needs and thus to prescribe and monitor the
    ovision of sufficient, but not excessive, kilocalories. Bioelecrriel impedmce malysirPan II: Utilization in cliniel pmctice, Clin Natt2):1430,2ffi4 BZ, Bioelectrical impedance analysis; I {14 human immunodeficienry vins; PbA, phase angle; R, resistance; Xr, reactmce. Restlessness. Comprehensive accreditation manual for hospitals 2006: Tbe offuia
handbook(CAMH), Oakbrook Terrace, Ill, 2006, The Joint Commission. Lifestylecounseling. It is probably useful to recommend a lower protein diet (50-60 g/day) rvith at leasthalf of the protein coming from other than meat sources. Although it is well tolerated, it has major implications for a patient at home becauseeventhe simplestpump is often viewed
ashigh tech. He or she will probably maintain his or her present height growth channel. Nighttime GERD is related to altered physiology and anatomy during sleep from decreasedSlivary secretions and McGuigan, 2005). Coordinated, competent, and
compassionate interdisciplinary nutrition care is essentialfor ell infants, children, and adula to preyent or treat pulmonary diseases. Yom Kippur, the Day of Atonement, occurs 10 days after Rosh Hashanah and is a day of fasting from all food and drink from sundown on the eve of the holiday to sundown on the holiday. Plugs of thick mucus reduce the
quantity of digestive enz)rynesreleased from the pancreas into the small intestine. govl Consumer Lab hnp://dietary-supplements.info.nih. Rinse mouth after meali and snackswhen brushins is not possible. By stating a feeling the counselor communicates understanding. Apolipoproteins not only carry lipids in the blood but also control the metabolism
of the lipoprotein molecule. Baglietto L et al: Does dietary folate intake modift effect of alcohol consumption on breast cancer risk? The results of this type of testing can be reliably considered to reflect the adequacy of a nutrient pool (see Chapter 15). Nutrition Counselor:Let's make a list of the positives and negatives of following this new eating
panern. High-caloric, low {roteindiet. Dominance and recessiveness refer to whether or not a trait is expressed in an individual that has one common (normal) allele and one variant (mutant) allele. The nutritional care of the adult patient who has received a transplanted kidney is based mainly on the metabolic effects of the required
imtherapy. Medicationstypically used for the munosuppressive long term include glucocorticolsteroids, prednisone, cyclosporine, and mycophenolatemofetil. Etiology Underweight and unintentional weight loss can be caused by (1) an intake insufficient in quantity to meet acriviry needs; (2) excessive activiry such as in the case of compulsive
athletes in training; (3) poor absorption and metabolism of the food consumed; (4) a wasting diseasesuch as cancer or hyperthyroidism that increases the metabolic rate and energyneeds; and (5) psychological or emotional stress(see Chapter 22). von Castel-DunwoodyK.N[et al: Tianscobalamin776C->G poll'rnorphismnegativelyaffectsvitamin
B12metabolism, Am J ClinNutr 81:1436,2005. What tips would you suggest for meals and snacksthat he can keep in his truck that would also fit with his eating plan? Since most kidney recipients require a fluid restriction while on dialysis, they will need to be reminded of the importance of maintaining fluid intake after transplant. Intakes
DietaryReference for Calcium for Ghildren and Adults Age (years) 1-) 4-8 9-13 14-r8 19+ Malesand Females (mg/dayl Pregnancy (mg/dayl Pregnancy (mg/dayl N/A N/A N/A 1300 1000 Lactation (mg/dayl Pregnancy (mg/dayl Pregnancy (mg/dayl Pregnancy (mg/dayl N/A N/A N/A 1300 1000 Lactation (mg/dayl Pregnancy (mg/dayl Pregnan
85 42 10 10 26.5 25 25 24 16.5 12 10 8.5 0-200 125 20 t2.5 100 606 505 +04 10 Beans and Bean Products Soy cheese substitutes, I oz Tofu, firm, made with calcium sulfate, SVzoz White beans, % cup Milfigramsper Serving o/oDaily 95 90 9.5 9 63 55 43 6.3 5.s 4.3 370 180 60
+0 )/ Value* Nuts and Seeds Dairy Foods Milk, with added calcium, I cup Milk, whole, 20/0,1%oskim, 1 cup Yoq-urt, low fat, plain, % cup Cheese, processed cheese, processed cheese, 7+ cup Frozen yoqurt, soft serve, % cup Ice cream, % cup Cheese, processed cheese, processed cheese, 7+ cup Frozen yoqurt, soft serve, % cup Ice cream, % cup Cheese, processed cheese, processed cheese, 7+ cup Frozen yoqurt, soft serve, % cup Ice cream, % cup Cheese, processed chees
Food Almonds, dry roast, 7+cup Whole [email protected] white), I Tbsp Brazil, hazelnuts, 7+cup Almond butter, 1 Tbsp Brazil, hazelnuts, 7+cup Almond butter, 1 Tbsp Meats, Fish, and Poultry Sardines, canned, 8 cup I8 6 4 Vegetables (All Measuresfor Cooked Vegetables) Tirrnip
greens, % cup Okra, frozen, % cup Chinesecabbage/bokchoy, Vzcup Kale, % cup Broccoli, % cup Br
(1) a susceptible host or tooth surface; (2) microorganisms such as Streptococcus or Lactobacillus, in the dental plaque or oral cavity; (3) fermentable carbohydrates in the diet, which serve as the substrate for bacteria; and (a) time (duration) in the mouth for bacteria to metabolize the fermentable carbohydrates, produce acids, and cause a drop in
salivary pH to less than 5.5. Once the pH falls below 5.5, oral bacteria can initiate 25 i Nutrition for 0 ralandDentalHealth 639 CHAPTER the demineralization of a protein matrix. A common sign of asthma is persistent mouth breathing. St-OngeMP et al: A new hand-heldindirect calorimerer to
measurepostprandialenergy expenditure, Obes Resl2704, 2004. The extent to which homocysteine accu- mulates and responds to supplementation with one or more of the B vitamins folate, Bz, Bo, and B12, as well as the forms of folate that are most effective, is related to the genot'?e of the individual (Bailey et al., 2002; Fohr et al., 2002; Kauwell et al.
2000a,2000b). A recent study by this group extended the complexity of homocysteine metabolism by demonstrating that B12genotype was also important (von Castel-Dunwoody et al., 2005). Some surgical procedures are restrictive because they decrease the amount of food entering the gastrointestinal tract. Instead, a ffansient reduction in energy
expenditure observed with energy restriction that normalizes on return to energy balance conditions @einsier et al., 2000). The controversy continues. S o u r c eosf F l u o r i d e Most foods, unless prepared with fluoridated watet contain minimal amounts of fluoride, except for brewed tea, with approximately 1.4 ppm (Morin, 2006). Shehas followed
strict diets and has never exercisedin previous weight-loss aftempts. The energydistribution of the kilocaloriesfrom fat, with the majority from mononnsaturatedsourcesand at least 12o/" to 15o/" of the kilocaloriesfrom protein. Low iron must be assessed stores and low magnesium levels have been
described in CF. Specimen Types Ideally the specimen to be tested reflects the total body content of the nutrient to be assessed. However, often the best specimen is not readily available. This amount, divided by the number of years remaining of linear growth, is the appropriate yearly rate of weight gain for the child to achieve a normal adult weight.
Johnson Ret al: Subdeacquired renal injury as a mechanism of salt-sensitive hypertension. N Engl Med 346:913,2002. "Cold" foods include most vegetables, tropical fruits, dairy products, and inexpensive cuts of meat. The program should be long term over the entire growth period and perhaps longer, 1003 501 902 151 821 878 t097 5+9 988 384 895
954\ 835\ ttgl\ 596\ 1074\ +17\ 100watts, moderate 368\ +34\ 501\ 568\ 637\ 702\ 768\ 835\ I\ 50 watts, vigorous 446\ 527\ 609\ 690\ 852\ 933\ 1014\ 200 watts, very vrgorous General, Hatha Lake, ocean, or river Laps freestyle, fast Backstroke Breaststroke Bunerfly Doubles Singles 6 mph, 10\ min/mile, 0\%\ incline\ 6 mph, 10\ min/mile, 
min/mile, 20/oincline 6 mph, 10 min/mile, 470 incline 6 mph, 10 min/mile, 470 incline 7 mph, 8.5 min/mile, 6% incline 7 mph, 8.5 min/mile, 270 incline 6 30 745 859 974 1092 1203 t317 t431 lll 115 168 l)) 372 434 179 430 501 501 573
7t6 788 430 573 716 812 568 6+9 8t2 891 487 649 812 910 637 728 910 1001 546 728 910 1003 702 802 1003 I 101 602 802 1003 I 101 602 803 1001 I 103 r207 t3t2 620 732 845 958 107+ 11 8 3 r295 1408 667 788 909 1011 1156 1273 1394 151 5 604 714 824 933
1047\ I 153 1262 r372 667 788 909 1031 1156 1273 1394 1515 525 368 +20 525 578 621 683 714 776 818 869 9ll 993 434 776 310 310 Jtt /f)U r074 835 t49r 596 596 7t6 954 835 t49r 596 596 7t6 954 835 835 Continued. perntdu e dq pasnec uego 'ecrds prou tueuro8eueruJo ouotsJauJoJer{l sr uoDua,lard, fueurr.r4 'lueurleeJl pue esneJJreql ur ruauoduror uorl -qctreqns orur
Surpealg(HVS) a6egllowag proutl3urugns -rlnu E;o ecuesa-rderp ro; pelenle^adllryllgr ag tsnru uo; xrrarsgo -uro[srp er{t u^{op ro esou egr uro} function for esou egr uro function function for esou egr uro function function function function function for esou egr uro function f
roteruureguruou furels.{ssnolJeu pragdrrad agl ut se8utgc ;o sed,{r snorJEAagt .{uedruooce,{eru uorlulnuleur cr8ologred ro eruegrnlsrp Puonrury fgledornau letagdpad pur sruotdludssno;aurng 'uorlenlt,re crSolo.rnauegr 3o rred egSue8 tuetJodurr Isou egt ueuo sr .{rorsrg gllEer{ ro ]ErIPeruagl IESegerp ot uorssnusuBn aururedop pas?eJJep pue
&l1q 'fflpfF JBInJSn{u'luetue.toul -Etsur lBJrusodtoruet Sunser peseeJcep pue A{ols dq pazrralceJtqJ es&aslp a,rBeraue8 -epoJneu 'Suqqesrp'eanssarSo;d E (0d) aspas!ps.uosul4rEd il\| nlrvsr-*nssv13 SSVXSs Ss*ffiTtrH n 3 r* SrxElB JOIOUT 'aqdo.Dseter t patua,rard.{deraqrg urur ;o[eu -elr,r a,rrsuadxeur pue 'pessasse sE,!\uorlrJlnu 'uotlunlts slql uI
'(966I "V ]e elrr?C-zeunprg) perauurnld peq .,(lereunr-rog eseasrpJo eJuaprJureql sqtuoru 7 dluo rage puu 'uourpdod errtue eql ot patnqrrlsrp iltuanbasqns ere,n sluaruelddns urruttr^ crrcel,(qdor4'siep 61 roJ lerp urarord-q8rg e Jo uou -drunsuoc pue iprce rrloJ pue 'E 'y sunuetr.t;o stuauralddns pro l(ztg pue'efl 'ur.ugoqrr'ururerqtlo sasopq8rg)
surluelr^ xelduroc-q urruetr,\ Jo uorle]Isrururpe leJatue.redrpltt tuaru -teelt JoUEpe,ro-rdursluened; Jagunu tuecgruSrs 'ocJeq V -ot Jo stJo#e rrxot egl gtr.,!rpeurquoJ dcuarcgep IEuoItIrl -oJol pu? S e eB o n e m i n e r a l d e n s i t y definition, 614 BMI. The latter part of the equation { ).8 kcaVproof/l oz-is the factor that accounts for the caloric
density of alcohol (7 kcaVg) and the fact that not all of the alcohol in liquor is available for energy. For enample, the number of kilocalories in IVz oz of 86-proof whiskey would be determined as follows: x 8
rnilk, fortified, 8 oz Orangejuice, fortified, 8 oz Orangejuice, fortified, 8 oz Pudding, madewith fortified, % cup Yogurt, fortified, % cup Yogur
numbers based on the recommended dietary allowance. The role of the individual within the cultural group can also greatly impact health care delivery. This reestablishes hunger and satiety cues for oral intake during daytime. Many people do not present themselves to a medical program and therefore are not available for follow-up or inclusion in
the statistics. The 70-kg "average man" stores only an 18-hour fuel supply as glycogen, compared with a 2-month supply stored as fat. This is the stage of change that is most often assumed when a counseling session begins. What guidanceshould be provided with regard to the appropriate use of vitamin and mineral supplemens and ways to
evaluatealtemative therapies?llow does soy affect estrogen-receptor-positiveforms of breast cancer?How should she managehot flashesnow that she is advised not to take estrogen-receptor-positiveforms of breast cancer?How should she managehot flashesnow that she is advised not to take estrogen-receptor-positiveforms of breast cancer?How should she managehot flashesnow that she is advised not to take estrogen-receptor-positiveforms of breast cancer?How should she managehot flashesnow that she is advised not to take estrogen-receptor-positiveforms of breast cancer?How should she managehot flashesnow that she is advised not to take estrogen-receptor-positiveforms of breast cancer?How should she managehot flashesnow that she is advised not to take estrogen-receptor-positiveforms of breast cancer?How should she managehot flashesnow that she is advised not to take estrogen-receptor-positiveforms of breast cancer?How should she managehot flashesnow that she is advised not take the flashesnow that take the flashesnow the flashesnow that take the flashesnow that take the flashesnow the f
removed when dialysis is complete. See Box 18-2 for a listing of reliable and comprehensive data sources. Ifnfortunately differences are evident in caries prevalence; approximately 20% to 25"/o of U.S. children have 80% of the dental caries. The macrobiotic diet is a quasi-religious, philosophic system populatized in the United States by Michio Kushi.
Ames BN et al: High-dosevitamin therapystimulatesvarianr en4lrneswith decreased coenzynne binding affinity (increased Km): relevanceto genetic beauseher vision is poor, shewill not be able to use printed materials that you have in your officethat have been translated into Chinese. Me dicaN
l u t r i t i oT n h e ra p y The objectives of MNT are to (1) prevent esophageal reflux, (2) prevent pain and irritation of the inflamed esophageal mucosa, and (3) decrease the erosive capacity or acidity of gastric secretions. High fat, high protein, and low dietary fiber intake; obesity; and alcohol consumption increase the likelihood of reflux but may not be
underlying or precipitating causes(El-Seraget al., 2005). Increased intake of certain foods may exacerbate or prolong reflux or alter the inflammatory or protective mechanisms. sB perreJ# eq feur ruau5pn( tananoq luopce orp oP ot alqrssod lr e>lerur(eur uorlerlsuourec 'suonJeJlp a, olloJ 'ersdoueruraqrpl r uolsl 69 'uogspr IEIuroN 9 Z-tU f UngH 8V
asPqdlPr0 'g-19 arn€rg ur ul.loqs se saseqd e?Jtfl otul pezrue8ro eq uEJ Sumolprrs ;o ssacord aqa fderaql uorilrpN tuolpa111; I g fUVa VLgl Surpuaruruocer dq etenbepedlpuonrnnu pue eyqrrepdsureru -n1q'sdnor8 pooJ ernue Jo uoneururleelqrssodpur erSeqd -sfp ,{q perseJlueur stlcgepcrSolornauot Surpualsnqr,pa8e ,sessarSord -{ueperuo3eqselJau
esBasrp [ruo]r{[ry IErue]] sa]nlxal '(99 rardrg3 aes) sI]n ,{cuanbarlagl e[npe]detuacrn(&requerc;o e{Etur Jo pescer[ul'sI]n erueprrur-rag8rgEe^eq(ueuruegruago Jo erorupel)a[]e areueruo,vr.) sl{ grp\ slsnpr^rpq.sNf, agr]o ,eleneselgercrpa;dun ,5y4 aseeslpe,rrsse.rSo.rd ue sr reppelg crua8o.rnaupue ,{gtedoledtu esne] [rlerunerluou euo ;o
'PePueuruoreJ lou sr pu? Cancerpatiens shouldbe encouragedto actively participatein their careand to communicatewith their health careproviders. Scolapio JS: Methods for decreasing risk of aspiration pneumonia in critically ill patients, JPEN J Parenter Enteral Nutr 26:585, 2002. You have been asked to counsel her about making changesin her
diet. Approximately 20/oto 50/o of white populations are heterorygotes, with a CF incidence of 1:1500 live births. In suli G n uidelines It is often necessary to adjust the insulin dosageto prevent hlpoglycemia. They allege that, if these toxins are removed, the body can heal itself naturally. Seea/so\4tamin(s) microsomal ethanol oxidizing system (MEOS)
in alcohol metabolism, 59 microvascular diseases definition, 765 in diabetes, 800-802 microvilli, 3 definition, 2 in a b s or ption, 11, 11 f midarm circumference, in body composition assessment, 402-403, +04f middle age, heart failure in, os in elderly, 887t Middle Easterners, communication style of, 492t midfacial hlpoplasia definition, 1170 in
Down s1'ndrome, 1180 migraine headache, 1091 -1092 migraine syndrome, definition, 1067 milk copper content of,716t cow's allergy foods, avoidance, T 54-755b "pareve" and, 758b composition ot, 206-207, 209-210t whole, 208,213 human, 206 anriinfective factors, 20 composition, 206-207, 209t drugs transfering into, 190-191t, 191 fortifiers, 1127
definition, 1117 in enteral feeding of premature infants, 1 1 3 0 - 11 3I nutritional content of formulas compared with, 1132t milk thisde in liver disease, 722 supplemental, efficacy of, reviews of, 479t milliosmoles, 148b MI (myocardial infarction) definition, 834 mind-body medicine, research,
centers, 475t Index 1335 mineral oil, nutrient absorptionand,439 mineral(s), 102-ll8 bioavailability,103 deficiencies in eatingdisorderassessment, 575-576 fin eatingdisorderassessment, 575-576 digestion/absorption,18- 19 enteral,for prematureinfants, lI27 -1129 in body composition,103 in chronic disease prevention,69b in rysticfibrosismanagement,913 in
diet/nutrition prescription, 465 in enteralformulas, 514 in hlpertensionmanagement, 876, B7I in osteoarthritis management, 1049-1050 in parenteralfeedingsfor end-stagerenal disease, 945 in rheumatoidarthritis, 1055 macrominerals, 102-114 calciumas, 103-107. See aho Calcjum magnesrumas, 110-113. This lower intake may help vegetarians retain more
calcium from their diets. SeeLarge intestine; Small intestine intolerance carbohydrate is used to produce adipose tissue, and it requires about three times as much energy to convert excess energy from carbohydrate to fat storage as it does to convert excess energy from dietary fat
to fat storage. Familial hypercholesterolemia results in a defective lowdensity lipoprotein (LDL) receptor and elevated levels of cholesterol, which leads to atherosclerosis. Some tips can be shared with individuals who are rT'ing to maintain their weight loss, including phrases such as: 1. Today scientists realize that, di- DNA Replication Prior to Cell
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Division Complementarynew strand "& Parentstrands A Adenine T Thymine G Guanine c Cytosine f, NewStrand Complementary FIGURE 13-2 Each time a cell divides into two daughter cells, its full genome is duplicated; for humans and other complex organisms, this duplication occurs in the nucleus. SampleMealPlan Breakfast Dinner Vz otp low-
 fatlfat-free yogurt I whole wheat English muffin I Tbsp whipped cream cheese % cup freshstrawberries Snack 1 med orange 7+cup mixed nuts Lunch 2 grilled steak fajitas (with mixed peppers) I oz
shredded low-fat pepper.jackcheese % cup black refried beans Side saladwith low-fat dressins The mineral magnesium is important for every organ in the body, particularly the heart, muscles, and kidneys. This includes the familiar "Yes but . Beyer, MS,RD fusociateProfessor Dietetics & Nutrition University of KansasMedical Center KansasCiry
 Kansas AbbyS.Bloch,PhD,RD,FADA ExecutiveDirector The Dr. Robert C. In the liver insulin facilitates glucoseoxidation and glycogen synthesis. If food intake is excessive, insulin also facilitates fatty acid slmthesisand storage in the adiposecells, thereby reducing the glucoseconcentration in the bloodsffeam. TotalCholesterol capturescholesterol con A
 total cholesterolmeasurement 60% to 707ois carried fractions: in all lipoprotein tained and 107o to 15% on HDL, and clinical within-population, VLDL. Lack of saliva impedes all aspectsof eating, including chewing, forming a bolus, swallowing, and sensingtaste; causespain; and increasesthe risk of dental cariesand
 infections. Dietary guidelinesfocus on the use of moist foods without addedspices, increasedfluid consumption Impactof Oral Infections, lesions, altered ability to eat, dysgeusia Increasedcariesrisk, pain, no molstenlng power, tendency of food to stick
 dysgeusia Dpphagia, odynophagia Increase kilocalorie and protein inake; administer oral supplements; provide caries risk reduction education Moist, soft, nonspicy foodsl "smooth" cool or warm foods and fluids; caries risk reduction education Moist, soft, nonspicy foodsl "smooth" cool or warm foods and fluids; caries risk reduction education Moist, soft, nonspicy foodsl "smooth" cool or warm foods and fluids; caries risk reduction education Moist, soft, nonspicy foodsl "smooth" cool or warm foods and fluids; caries risk reduction education Moist, soft, nonspicy foodsl "smooth" cool or warm foods and fluids; caries risk reduction education Moist, soft, nonspicy foodsl "smooth" cool or warm foods and fluids; caries risk reduction education Moist, soft, nonspicy foodsl "smooth" cool or warm foods and fluids; caries risk reduction education Moist, soft, nonspicy foodsl "smooth" cool or warm foods and fluids; caries risk reduction education Moist, soft, nonspicy foodsl "smooth" cool or warm foods and fluids; caries risk reduction education educat
Dysphagia, food accumulation Try oral supplementation first; if that is unsuccessfirl, initiate NG feedingsusing silastic feeding tube or PEG PEG CMV, Cy, tomegrlovirus; KS, Kaposi's sarcoma; NG, nasogastric; PEG, percuaneous endoscopic gastrostomy. Drug Enforcement Agenry (DEA) Schedule II anorexic agents such as amphetamines have a high
 potential for abuseand are not recommended for obesity treatment. Hypovitaminosis D with secondary hyperparathyroidism occur more often in the black population. 36 PARTI: NutritionBasics Grossenergyof food (heatot combustion) (kcaUg) Energylost in feces
 Carbohydrates 4.0 Fat 9.0 Protein 5.20 Alcohol 7.10 \1 Energylost in urine Metabolizable energy (kcal/g) Carbohydrates 4.0 Fat 9.0 Protein 4.0 Alcohol 7.0 FIGURE 2-6 Energy value of food. Because of this. 15+e: g / d a y Modified from Comrnittee on Nutrition, American Academy of Pediatrics: Specialdies for infants with inbom errors of metabolism
Pediatrics 57:783,1976. ing timely enteral accesscan often be a challenge; and, if it 1. Terosian MH, DalyJM: Nutritional supportin the cancerbearinghost: effects on host and tumoq Cancer 58:1915,t986. Once antibodies to HfV appear in the blood, individuals with and without symptoms will test positive for HfV Viral load is extremely high, and
 individuals are extremely infectious at this time (see Box 38-1, Category A). Streptococcusrnat&ns is the most prevalent, followed sanguis. The PEG is the preferred accessroute for patients requiring tube feeding for more than 3 to 4 weeks because of its ease in providing feeding while causing the patients requiring tube feeding for more than 3 to 4 weeks because of its ease in providing feeding while causing the patients requiring tube feeding for more than 3 to 4 weeks because of its ease in providing feeding while causing the patients requiring tube feeding for more than 3 to 4 weeks because of its ease in providing feeding for more than 3 to 4 weeks because of its ease in providing feeding while causing the patients requiring tube feeding for more than 3 to 4 weeks because of its ease in providing feeding while causing the patients required accessorate for patients are patients.
 elevated by aerobic exercise. Except after fairly high levels of intensity or large amounts of exercise, R-NIR returns to resting levels within an hour or so following exercise. Energy expenditure during this period represents replacement of muscle glycogen, as well as the effects of hormonal changes and the increase in metabolic processing of fuel
stores. Steady weight loss over a longer period favors reduction of fat stores, limits the loss of vital protein tissues, and avoids the sharp decline in R-NIR that accompanies rapid weight reduction. The only rule here is that anything goes. UnsplashWandering through this limitless paradise of beautiful imagery makes it easy to personalize your desktop
 fSince eggsarehigh in cholesterol, limit eggyolk intaketo no more tlan four per weelc; two eggwhiteshavethe sameprotein contentas 1 oz ofmeat. Although modern biotechnology being the ethical, legal, and socialimplications (ELSI) of gegan long before the Human Genome Project, many of the Tne Human GenomE RojEcr 368 PART3:
 NutritionCareProcess ELSI: Ethical, Legal, and SocialImplicationsof GeneticsResearch enetic technology gives humans the power to read the information in each of their genes and tell them who is likely to remain healthy or becomeill-and with which type of illness. Plaque in the gingival sulcus, a shallog V-shaped space around the tooth, produces
toxins that destroy tissue and permit loosening of the teeth. Pirlich M et al: Prevalenceof malnutrition in hospitalized medicalpatients:impact of underlyingdisease, Dig Dis 21:245, 2003. American Society for Parenteral and Enteral Nutrition Board of Directors and The Clinical Guidelines Thsk Force: Guidelines for the use of parenteral and enteral
nutrition in adult and pediatric patients, /PEN J Parenter Enteral Nutr 26: I (S), 2002b. The health-promoting benefits of probiotics in the prevention of calcium oxalate stone diseaseusing oxalate degrading bacteria, oxalobacter formigenes, is under study (Hoesl and Altwein, 2005). Vitamin A consumption is generally
 considered to be beneficial to bone growth and maintenance. In men the rates of obesity vary from 250/0 to 28"/" of the population (Fledley et a1.,2004). New diaglostic recommendations haveincluded designation for prehypertension of the population (Fledley et a1.,2004).
2005). Therapeutic lifestyle changes are recommended as an initial treatment trategy for children and adolescents with prehypertension (Thble 33-5). These lifestyle modifications include regular physical activity, avoiding excess weight gain, limiting sodium, and consuming a DASH-type diet. Before any extremely obese person is considered for
surgery failure of a comprehensive program that includes calorie restriction, exercise, lifestyle modification, psychological counseling, and family involvement should be demonstrated. Consultpharmacistto verifyappropriate form of medication. WKS is one of the gravestconsequences.
undiasnosed. Alcoholism is more Drevalentin the C H A P T E R4 T i Medical Nutrition Support plan is likely to be designed? What specialtyproducts, if any, might be beneficial to Lindy? Nutrition Support 515 Enteraland Parenteral
cHAPTER20 I Intervention: Modern enteral pumps are small and easy to handle. The diet should also include generous protein to energy. Munoz V et al: Dental and periodontallesions patients with gastroes ophageal reflux disease, Dig Liuer Dis 35:461, 2003. In practice, the
differences between populations are often ignored because the importance ofsmall differences in a nutrient analyte is not usually significant. Supplemental phosphorus may be necessary to correct hypophosphatemia. A series of questions are often ignored because the importance of small differences in a nutrient analyte is not usually significant. Supplemental phosphorus may be necessary to correct hypophosphatemia. A series of questions are often ignored because the importance of small differences in a nutrient analyte is not usually significant.
Dietary acrylamide and human catcer, Int J Cancer 118:467,2006. pyhri in the United States are declining, it is still a still a problem in the elderly and in populations with limited access to health care @rnst et al., 2006; Fennerty, 2005). Examples of cariostatic foods are protein foods such as eggs, fish, meat, and poultry; most vegetables; fas; and
 sugarless gums. In addition, monitoring the Patient Receiving Enteral Nutrition Weight (at least 3 times/wk) Signs and symptoms of edema (daily) Fluid intake and output (daily) Adequacyof enteral
 inake (at least 2 times/wk) Abdominal distention and discomfort Gastric residuals(every 4 hr) if appropriate Serum electrolytes, blood urea nitrogen, creatinine, (2-3 times/wk) Serum glucose, calcium, magnesium, phosphorus, (weekly or as ordered) Stool output and consistency (daily) that nutrition goals are achieved and maintained. The epidemic of
 obesity and diabetes could reverse the downward trends in CHD mortality if it is not controlled in the near future, especially given the increasing rates seen in children and adolescens (Thompson et al., 2007) (see Chapter 21). Exercise Excess body fatness is a result of an imbalance between energy intake and energy expenditure, and physical activity
is an extremely important part of a weight-management program. Highintakeof carbohydnteandfat to spareprotein. My 1080i CRT tv will blow the doors off 75% of the LCDs out there in the picture quality department," posted one commentator. Telly wars "That said, the HDTV specification is 1080i or 720p — BOTH are full high definition, BY
DEFINITION. Owuor ED, Kong AN: Antioxidants and oxidants regulated signal transduction pathways, BiochemPbarmacol64:765, 2002. Chitin and chitosan are also homopolymers of glucosamine and are widely distributed among various organisms, including algae, fungr, and yeasts. How would you advise him about the herbs? Its use gready limis and oxidants regulated signal transduction pathways, BiochemPbarmacol64:765, 2002. Chitin and chitosan are also homopolymers of glucosamine and oxidants regulated signal transduction pathways.
 mobility, and, like any piece of equipment, it can break and intemrpt feeding schedules. Such a high intake of calcium maintains a lower serum PTH concentration (within the normal range), and it may also support a healthier vitamin D status if the calcium is from vitamin D status if the calcium maintains a lower serum PTH concentration (within the normal range), and it may also support a healthier vitamin D status if the calcium maintains a lower serum PTH concentration (within the normal range).
 permeability, and some may cause significant allergic reactions and im- f Nurrition Care Guidelinesfor Reducing Gastroesophageal Refluxand Esophagitis 1. SeeCholecystokinin CCPD (continuous cyclical peritoneal dialysis), 932 CD4+ cells definition, 991 in
 HIV infection, 992 celiac disease, 681-686 bacterial endopeptidase, usage, 686b care management algorithm for, 684f definition, 673 gluten-free diet, usage, 685b in pregnancy, 169-170 medical nutrition therapy, 683-686 medical treatment, 682-683 nutritional/extraintestinal manifestations, 683 pathophysiology, 681-682, 682f, 684f cell-mediated
 hypersensitivity, 743t cell-mediated immuniry 741 definition, 739 cell-mediated response to stress, 417-418 cellulose, 47 as fat replacer, 58t composition /sources/fu nctions, 48t definition, 739 centers for Disease Control and Prevention
(CDC) information, 3 15-316 Central American dietary patterns, 353t Central European dietary patterns, 352t central nervous system (CNS) disorders, 1067-1101. Bob generally consumesone or two beers before bedtime and is willing to give up that habit. Compliment three patient on carrying out the plan. ADP, rdenosinediphosphate; cAMP, ryclic
 adenosinemonophosphate(cAMP); ATR adenosinetriphosphate. dietetic advicetoward individualizedhealth, 105:1425,2005. (l: absolutely never; 12: absolutely always)." Explore eating behaviors by using the following statements: . Nohria A
et al: Medical managementof advancedheart failure, JAMA 287:628,2002. I can understand that. N/1, Not applicable. Skills in knowing how to elicit information about eating habits are important as tlle assessment full that. N/1, Not applicable. Skills in knowing how to elicit information about eating habits are important as tlle assessment full that. N/1, Not applicable. Skills in knowing how to elicit information about eating habits are important as tlle assessment full that.
She has been living in your area for severalyears and has numerous health problems, including high blood pressure and glaucoma. The counselor might offer the following: "You say you're unsure about what to do. eari ght. Equationsfor PredictingREE(kcal) FromBody ight (kg) Age Range (yr) 0-3 3-10 10-18 18-30 30-60 Females 61.0x wt - 51 22.5x wt
 + 499 12.2x wt + 746 l+.7 x wt + 495 8.7x lrt + 829 Males 60.9x wt 22.7x wt + 17.5x w
partial hydrolysis or by reducing particle size, thus increasing availability for enz)rme action. Gunther S: Demographicand health-related correlates in developed countries. The goal is to increase intrinsic motivation so
 that clients are able to expressthe rationale for the changes. dlaraldruocrualc ot q8noc elrxegar Suors tplrr rnq rfiuo sprnbqulql Jo uorlurrdry. Despite these findings, atherosclerosisimaging in asymptomatic individuals is a controversial public health topic because of the costs associated with screening (O'Malley, 2006; Raggi, 2006). Because a body
 that weighs less requires less energy expenditure to 556 PART4 Nutritionfor HealthandFitness DeterminingAppropriateRateof Weight Gain in the ObeseChild rom the history of family growth patterns and review of f I the prior growth patterns and review of f I the prior growth pattern of the obese child, determine the predicted adult height of the child. DietaryReference Intakestor Zinc for
breakfast cereal, fortified with 100% of the DV for zinc per serving, % cup serving Beefshank, lean only, cooked, 3 oz Beef chuclg arm pot roast, lean only, cooked, 3 oz Beef chuclg arm pot roast, lean only, cooked, 3 oz Beef chuclg arm pot roast, lean only, cooked, 3 oz Beefshank, lean only, co
zinc per serving, '/a cup RTE breakfast cereal, complete wheat bran flakes. Citric acid is a component of the tricarboxylic acid (IGebs) rycle. It is also useful to apply CBT in group therapy (e.g., to improve adherence fluid restrictions among dialysispatients [Sharp et al., 2005] and to help weight-concernedsmokersmaintain smoking abstinence
[Clarket al., 2005]). REE, Resting energy expenditure. Other circumstances that may lead to vitamin K deficiency include liver disease, serious burns, health problems that can prevent the absorption of vitamin K deficiency include liver disease, and chronic
 antibiotic therapy. Percation and direction of tube movement. Glycerol proceeds to the liver, and fatty acids enter the adipocyte, where they are reesterified into triglycerides. 2 2 (4): 5 7 91,9 7 3. A major reasonfor inadequatecontrol of high blood pressure proceeds to the liver, and fatty acids enter the adipocyte, where they are reesterified into triglycerides. 2 2 (4): 5 7 91,9 7 3. A major reasonfor inadequatecontrol of high blood pressure is poor adherenced to the liver, and fatty acids enter the adipocyte, where they are reesterified into triglycerides.
 woman wrote a letter to her nutritionist saying that she wanted to stop working on her dietary changes. FeskanichD et al: \4tamin A intake and hip fracruresamong postmenopau salwomen, JAMA 287:47, 2002. wasteproducts known as renal function; renal failure is is hematuria The primary manifestation of these diseases the consequence of inability and intake and hip fracruresamong postmenopau salwomen.
to excrete the daily load of (blood in the urine), a consequence of the capillaryinflamthesewastes. 4 B on e - . ShettyPS et al: Energy requirementsofadults: an updateon basalmetabolic enzyme replacement therapy is the first step aken to
 correct maldigestion and malabsorption. Monounsaturated fatty acids (MFAs) contain only one double bond, and polyunsaturated fatty acids (PUFAs) contain two or more double bonds. These changes can occur within the regulation
of the transcription process. SeeAge-related macular degeneration amenorrhea definition and, 270 American Institute for Cancer Research, guidelines, for cancer prevention, 968b Amfepramone (diethylpropion HCI), in obesity management, 551t
 amino acid(s),59-65 aromatic. She guit smoking I pack per day 6 months ago and at that time went on a diet. Keep it simple and have fun with pureed pasta. When the counselor leans forward slightly and has a relaxed posture and avoids fidgeting and gesnrring, the client will be more at ease. What resources are there to help her prepare meals that
precariousfor patiens with underlying chronic pulmonarydiseasesuchas CF or emphysemaor for thosewho are otherwisemedically compromised, malnourished, or older. However, lung transplantation may be a viable option for somepatiens. Despite considerable evidence of this phenomenon in animal models (Genton et al., 2005), it has not been
 substantiated in humans (Buchman et al., 1995), o Is it touted asbeing preventive or to have treatment effects? What does the label claim? Factors that may alter nutrient requirements in cancer include the impact of the malignant diseaseon host metabolism; the catabolic effects of cancer therapy; and physiologic stress such as surgery fever,
 malabsorption, and infection. Most people have HfV-l; unless specified, it is the type discussed.HIV-}, first isolated in West Africa, is less easily transmifted, and the time between infections and those who perform physically demandingmanual
labormayneedhighercaloricintakesthan might be expected. RD affects all populauon groups. Decreasing adipose tissue mass alone will not achieve the metabolicbenefits of weight loss. By itself, abdominal liposuctionis not a clinical therapyfor obesity. Vt wocado Carrot juice, canned, % cup Peanut oil, I Ttrsp Corn oil, 1 Ttrsp Corn oil,
 cooked, % cup Dandelion greens, cooked, % cup Sardine, Adantic, in oil, drained, 3 oz Blue crab, cooked./canned, 3 oz Blue cra
steamedspinach(1.9 mg vitamin E) % cup whole grain rice Sidesalad Snack I oz slicedalmonds(7.3 mg vitamin E) I Tbsp low-fat granola 1/zcrtp low-ht/fat free yogurt Norr: Takeonemultivitamin/multimineralsupplementdaily. Cohen MH et al: Policiespertainingto complementaryand alternativemedicaltherapiesin a random sample of 39 academichealth
 centers, Ahernatiue Ther HeahhMed II(1):36, 2005a. Historically genetics has focused on identifiing the mechanisms which traits are passed from parent to child, focusing on eye color and other readily observable characteristics. M. The most common specimens for analysis are the following: Whole bhotl-Must be collected with an anticoagulant if
 entire content of the blood is to be evaluated. The client is responsible for choosing and carrying out personal change protein metabolism, although the exact mechanism is not Senna are the dried leaflets of plants found in known. M EoIcAL MnnAcEMENT Diseaseprogressiondiffersamongindividuals, and treatment decisionsmust be
individualized.With the adventof viral load testing (measurement of the quantity of HIV deoxgibonu- CHAPTER Virus(HIV) Disease999 38 * MedicalNutritionTherapyfor HumanImmunodeficiency Immunologic Gategories for HIV-Infected BasedonAge-Specific Ghildren GD4+T-Lymphocyte GountsandPercentage of TotalLymphocytes Immunologic
 Gategory No evidence of suppression Evidence function and Evidence function Severesuppression Evidence function and Evidence function and Evidence function and Evidence function Severesuppression Evidence function and E
the patient with cancer. In and CoulstonAM et al, editors: Nutrition in the preaention SanDiego, 2001, AcademicPress. A primary factor in the development of root surfaces to the oral environment (Gilberi et al., 2001; Takano, 2003). Estimate the presention of the preaention of the preaention of the presention of the 
r g yE x p e n d e d in Physical Activity intensities of physical activity-energy that is expressed as metabolic equivalents (Institute of Medicine, 2002; 2005). Unhealthy belief system Strategiesto Motivate Change . Thylor D et al: The registry of the internationalsociety for heart and lung transplantation: twenty-first of ficial adult hean transplantation and lung tr
2004, J Hean Lung Tiansplant 23:796, 2004. In lean children, fat cell size then decreases; however, tlis decreasedoesnot occur in obese children. A normal adult protein intake of approximately I g/kg of body weight maintains the serum PTH concentration within a healthy range (Kerstetter et al., 2000) if calcium intake is also at or near the
recommended intake. See "Medical and Surgical Management of (Ilcers" for peptic ulcers in the following paragraphs.) Other Formsof Gastritis The mucosa of the stomach and duodenum is normally protected from the proteolytic actions of gastric acid and pepsin by a coating of mucus secreted by glands in the epithelial walls from the lower
esophagus to the upper duodenum. Reduced calorie sweetenersapproved by the U.S. Food and Drug Administration (FDA) include sugar alcohols (erythritol, sorbitol, mannitol, xylitol, isomalt, lactitol, and hydrogenated starch hydrolysates) and tagatose. J Natl Cancer Conklin KA: Dietary antioxidantsduring cancerchemotherapy: and development of
 impact on chemotherapeuticeffectiveness 37:1,2000. Composition of the diet has been the focus of intense study. Patients can be encouraged to use their "teeth" initially, cutting food into small pieces. SeeDASH (Dietary Approachesto Stop Hypertension)Diet dietaryfiber, 47-50 definition, 40, +7, 673 Dietary Guidelinesfor
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sy'ndrome assessment, 1179-1180 in Prader-Willisyndromeassessment, 1181tt82 in spinabifidaassessment, 1181tt82 in spinabi
 mealreplacementprogramsin, 546 recommendations, 545 restricted-energydietsin, 545-546 very low-caloriedietsin, 548 dietarypatterns Black,352t CaribbeanIslands,353t CentralAmerican,353t CentralAmeric
Filipino,356t Japanese,355t 360b Jewish,357t,158-359, Korean,355t Mexican,353t NativeAmerican,354t SouthAsian,156t Southeast fuian, 350 SouthernEuropean,352t dietaryplanning cultural aspects,349 food labeling,impact,344,347-J49,347f, 347t,348b
guidelines, 337-362 worldwide, 338 nationalguidelines, 342-3 44, 343b, 343f, 344b nuffient needsin, determination, 138-339 nuffitional status of Americans and, 339-340, 34lt dietaryreference intakes (DRI$, 120 339 by age-groups/sex-groups, components of, 338-339 definition, 337 for biotin, 94 for calcium, 34b nuffient needs in, determination, 138-339 nuffitional status of Americans and a supergroups of the su
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 152(6):1084,2006. Factors interfering with adequate intake and retention ofnutriens include dyspnea, coughing and cough-induced vomiting, gastrointestinal discomfort, anorexia during episodes of infection, possible impaired senseof smell and taste, and glucosuria. Method selectionis basedon the padent'sclinical starusand quality of life
consideradons. One method can serve as a ffansition to another method as the patient's staruschanses, gov/energy.html, accessedDecember 1, 2005. Thus to suggest ginger to all cancer patients with acute or chronic illnesseshave the potential for malnutrition and
 should be evaluated further. Stay upright and avoid vigorous activity soon after eating. In the early phase of refeeding, nutrient prescriptions should be moderate in carbohydrate and supplemented with phosphorus, potassium, and magnesium (Kraft et al., 2005). TheraPy Replacement Androgen Testosterone replacement in elderly men may help to
 maintain bone mass and prevent fractures, but side effects, especially prostate growth, limit the use of testosterone and other androgens. Other RDs include spondyloarthropathies, polyrnyalgia rheumatica, and polynyositis. When at all possible, more accurate estimations of energy requirements are recommended with the use of indirect calorimetry
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are effective in raisins awarenessof food safetyissues, food and water safetymust b! examined on a narional, systems-basedlevel. American Dietetic fusociation and Regional Food Praaices Series, Chicago, 1999, American Dietetic Association
nccam.nih.govlnews/camsurvey.htrn, accessedDecember 8, 2005. Formulas containing peptide fragments and amino acids are derived from the hydrolysis of casein, whey, lactalbumin, or soy. Promoting a positive health profile in the community crossesthe life cycle and includes all aspectsoffood and nutrition. Wilkens, MS, RD, 2006. In this way
increased glucose use by the exercising muscle is matched precisely with increased glucose production by the liver. Thomson CA et al: Proposedguidelinesregardingthe recommendationand saleof dietary supplements, J Am Diet Assoc102(8):ll58, 2002. Dronabinol o Corticosteroids MetabolicAgentsand GytokineBlockers o . Therefore, because of a lackers of a lacke
of specific information, the goal for dietary fat intake (amount and type) for persons with diabetesis the same as for those without diabeteswith a history of CVD. Shorr AF et al: Protein C concentrations in severe sepsis: an early directional change in plasma levels predicts outcome, Crit Care 10(3):1292,2006. Further, in the genomics era
researchershave found that many genes occur in slight variations on the "normal" (most common) version. KathleenMahan, MS, RD, CDE. Autosomes; sex-linked refers to traits carried on either the X or Y chromosome. The guidelines are directed to physicians and associated health
 i c i a n s As awareness of dietary supplement use expands within the health care community the number of evidence-based resources available to clinicians is also srowins consider- Supplement Reason for us6 Mineral/Mineral combinations/Trace elements Calciumwith vitaminD and FoodConstituentsor herbals Fish oil or omega-3fats taken for the
 following health conditions Arthritis/jointhealth Bone health Cancerorevention energy Heart health Memoryloss Menopausal Prostatehealth Sports loss Other: Other: FIGURE 18-6 Dietary supplementinrake assessment form. The counselor must be ready to move back and forth between the phase-specificstrategies. Now that this drug has been
 a'pprorredby the FDA for regrrlar prescription use, it is the only practical agent that increases bone formation (i.e., it is anabolic) and thus bone mass. patients with small bowel accessshould also be fed by continuous drip infusion. ShankaranS et al: Feal origin ofchildhood disease:intrauterine growth restriction in term infants and risk for
 hypertension at Med 160(9):977,2006. With this and concomitant small bowel feeding, enteral nutrition is now implemented in patients with small bowel function who previously \Meresupported parenterally because their gastrointestinal function was assumed to be inadequate. The imaging method varies by arterial bed. SeeBulimia nervosa BOD
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a APPENDIXES L239 U o* >.R to bo: :E -:7! Q E h; E o L24O APPENDIXES (, !0 tr (! Ectr o jj 66 vv ** F d ti n= v'i 5v 9? Heller AR et al: Omega-3fatty acidsimprove the diagnosisrelatedclinicaloutcome, Crit CareMed 34:972,2006. BodyFat Fat in the body is categorized as either "essential" or "storage." Essential fat, which is necessaryfor normal
 physiologic functioning, is stored in small amounts in the bone marroq heart, lung, liver, spleen, kidneys, muscles, and lipid-rich tissues in the nervous system. Conversely in the chronically ill, nutrition support is an issue that each patient must eventually addressbecauseit may result in prolonged therapy. SpivakJL: Iron and the anemiaof chronically ill, nutrition support is an issue that each patient must eventually addressbecauseit may result in prolonged therapy. SpivakJL: Iron and the anemiaof chronically ill, nutrition support is an issue that each patient must eventually addressbecauseit may result in prolonged therapy.
 disease, Oneolog 16(9 suppl 10):25,2002. Urinary oxalate excretion increasesup to five times normal in enteric hl.peroxaluria after bypasssurgery. Weight lossin dieting subjects also typically associated with boneloss (Pluijm et il., 2001). In addition, a metaanalysis of randomized controlled trials suggess no benefit of chromium
picolinate supplementation in reducing body weight (Pittler et al., 2003). Kamp, MS, RD ProjectCoordinator National ResourceCenter on Nuuition, Physical Activity, and Aging Florida InternationalUniversity Miami, Florida Debra A. These CHAPTER37 i Medical Nutrition Therapyfor Gancer 985 therapy regimens generally include colonic cleansing
 with coffee, wheat grass, or other substances; special diets; and vitamin and mineral supplementation. Identiffrg a network to support dietary change is important. lMore methionine is required in the absence fryst(e)ine. P excretion a network to support dietary change is important. lMore methionine is required in the absence fryst(e)ine. P excretion and mineral supplementation. Identifing a network to support dietary change is important. lMore methionine is required in the absence fryst(e)ine. P excretion and mineral supplementation.
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 a8eruacredgo eldnoc e dpo dlpc -ldfr sl eJuaraJJrporp tnq 'sruarualddns tuntJIEJ Jeqlo pue alBuoqrBJ runrJIBJ ueqr z(puercse eroru dpq8gs paqJosqB aq or readde nuarualddns Surureluoo-runrJleJ IIB dlecFcerd lnq 'pesn uorue erll uo spuadep sruaruelddns aleFrrr aterrJ runtJIEJ drgq" -lre^eorq pooS erreg te{Jeru er1l uo ,(puarrnc uueuralddns Surureluoo-runrJleJ IIB dlecFcerd lnq 'pesn uorue erll uo spuadep sruaruelddns
 unnluJ urog drrlqelreleorq runtrle3 sluaualddns unr3lPc L U O J ^] l r l r q B l r P A P o r gu n r 3 l P S 'vbTalqel ur Pa$rT sr seJJnos poo; roleru ur runtrlec Jo tunotue eqJ '$uerrl -nuorcrru 1e dlpcncerd ot tcedser rpr,r e{elw paJueleq BJo re{reru E osle sr spooJ ruo{ lerp qJrr-unrcltJ E;o uonduns -uor erp re{r pu? I22O APPENDIXES Body Welght
 Activity Type Aerobics class Aerobic
>20 mph, racing 50 watts, stationary very light 100 watts, stationary light 150 wats, stationary moderate 200 watts, stationary vrgorous 250 watts, stationary very light 150 wats, stationary light 150 wats, stationary rigorous 250 watts, stationary very light 100 watts, stationary light 150 wats, stationary rigorous 250 watts, stationary vrgorous 250 watts, stationary very light 150 wats, stationary light 150 wats, stationary rigorous 250 watts, stationary very light 150 wats, stationary light 150 wats, stationary rigorous 250 watts, stationary very light 150 wats, stationary rigorous 250 watts, stationary very light 150 wats, stationary rigorous 250 watts, stationary rigor
 Badminton Badminton Baseball Basketball Bask
 Racquetball Rafting Rock climb Rugby Run Run Power cart Pull clubs General Gen
as fresh fruis and vegetables with fermentable carbohydrates. it may bL required initially until a degree of function is regained, whereasin chronic neurologic diseaseit may be required in the late stagesto meet changing metabolic demands. Wellmanaged nutrition support helps to prevent pneumonia and sepsis, which can complicate tlese diseases. for
DietaryPlanning 36L 12 I Guidelines CHAPTER N | "" is a 20-year-old college student who has decided to I U become a vegetarian for nonrelisious reasons. She does not eat red meat, chicken, fish, or dairy products. For example, the conventional report of an ionized calcium value could be 2.3 rnF,q/L, 46 mgtL or 4.6 mg/dl. The ability to digest
 carbohydrates is modified by (1) the relative availability (or resistance) of the starch to enz1irrcaction; (2) the activity of digestive enzlzrnes, especially lactase, at the mucosal brush border; and viscous dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibers such as pectins, Brush border; and (3) the presence of other dietary fibe
 glucans, and gums that dilute enz]/l]j.econcentration. The elevatedglucose levels may also extend into the postexercisestate (Purdon et al., 1993). Nutrition Diagnosis: Involuntary weight loss l. Intake and follow-up information about these
 therapies provides important pharmacologic and treatment information for the health care provider. Most of the nutritionrelated disorders included here can be prevented or at least well-managed by changes in dietary practices based on flrrrent knowledge. The gastrointestinalroute is preferred, although aspiration and bacterialovergrowthare
 concerns. Feeding Procedures that minimize aspiration include the use of a continuous method of feeding rather than large bolus feeding rather than large bolus feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the stomach, the use of small-borenas ogastric feeding rather than the use of small-borena
 (seeChapter20). with HSCT may perassociated Nutrition impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentassessment and intervention impactstj/mptoms sist; individuals receiving outpatient marrow transplantation requirefrequentasses and intervention impactstyle in the second of the second outpatient marrow transplantation requirefrequentasses and intervention impactstyle in the second outpatient marrow transplantation requirefrequentasses and intervention requirefrequentasses are second outpatient marrow transplantation requirefrequentasses are second outpatient marrow
 the patient. cooked. Atallah AN et al: Calcium supplementationduring pregnanryfor preventinghlpertensivedisorders and deaths, severe infections, cellulitis, and hemorrhage have been noted to occur. Since dairy foods are a rich
 source of calcium, researchersdocumented a similar inverse relationship between increased dairy food intake and decreased incidence of periodontal disease (N-Zaht ani, 2006). In terms of prevention, these types of activities have been underused. This may be for the specific purpose of providing for childbearing and lactation. Individualized nutrition
 a$essment,intervention, and monitoring of patients must be coupled with their changragpulmonary satus over the courseof their lifetimes. The greater the choices, the more people tend to overeat. Asami DK et al: Comparison of the total phenolic and ascorbic acid content of freeze-dried and air-dried marionberry strawberry and corn grown using
conventional, organic, and sustainable agricultural prrctices, J Agric Food Cbem 51:1237, 2003. sluarled ur sa8ualleqo rerp JoJlepour ro lereueC :1ele g delere; 1 pezrlenprrpur aql :tarpleuos-rad ' 0002' 80t:62 loprunaqtrf, punrs 'surotdurdser8p. {ruorqgsetel elle rerp uu8en :lEta uaunre?}) ) '0002 'uorltrtpord -rolerpaur 'stlttl l:oleruuegur L .qnN uIJ f
urg pue sprredrre; perernresuMlodl:erarg :p re f1g seruef 't007. 'rt Ll l1l0%naq[ uIJ saypo.t'd$ag'seruorpufs PelBIerpue erSledurorqg ur eurrrpeu ealt?urell€pue l:etuaurelduo3 :OT UETTPIoH '0007'L€gtglpwrunaqa eltuean(rlrra uerPllqr uI sluePrxonu? r = F iJ,Y EE XF & N : E x o 1 : U E E AE E xB +9e I -:bo ;=3 I g' 'a -I t' a o !2 o o @ o o ok 9o, d-r
3'* qA -! RV oiE op I &E OG JI RT s.x \.F tl RH .X {s SQ .s= sR E.E $: s;' TE ix xe- tt r :n 6-9 ro Eoa .=X E,F xa dd - t E rc o - d gi \r \ APPENDIXES 1243 o 9.1, o? r Who recommendedthe supplement(e.g., media, physician, nurse, dietitian, alternative medicine practitioner, friend, family)? in brain and nervous system, compounds having, I l09b antioxidan
 capacity global tests of,428t measurement of, Raman spectroscopy in, 428b antioxidants as carcinogen inhibitors, 962 as oxidative stressmarkers, 427,427t definition,39,959 for rheumatoid arthritis management, 1049 intake, increasing, for
 psychiatric conditions, I 109 requirements for, in athletes, 598 research, centers for, 474t supplemental, eFficacyof, reviews of, 478t vitamin E as,79 antioxidant status in oxidative stress assessment, 426-427 antiparkinson agents, anticholinergic effects, 443b antipsychotics anticholinergic effects, 443b increasing appettte, 447 b antiretroviral
 medications, for HfV disease, nutritional complications, 1002-1005t antiretroviral therapy (ART) definition, 991 in HIV disease, 999, 1001 antispasmodics, gastrointestinal (anticholinergic effects), 443b antithyrnocyte globulin after liver transplantation, 726t cr1-antitr'?sin defrciency, 7 17 antituberculosis drugs, nutrient metabolism, 419-440
 antivertigo agents, anticholinergic effects, 143b antiviral agents, diarrheal effects, 445b anriery disorder, generalized (nutrition, 1112t anxiety disorders, nutrition, 1112
changes in, drugs causing, 444-445, 446b, 447b in Prader-Willi s1'ndrome,1181 loss of, in cancer,972 appropriate for gestational age (AGA), 1118 d e f i n i t i o n ,l l l 7 apraxia, 1070 definition, 1067 in neurologic disorders, feeding issues (relationship), 1073-107 4 Apti'r. 'us(tipranavir TP$, nutritional complications, 1004t arachidonic acid (ARA)
 definition, 199, 1042 in human milk, 203 ARE SeeAcute renal failure arginine, ergogenic aid, 604t argininemia, 1144t argininosuccinic aciduria (ASA), 1144t, 1161 definition, 1141 arguments, avoiding, in facilitating behavior change, 495 arm anthropometry for adults, 1218 for children, 1217 Arnold Chiari malformation of the brain definition, ll70 in
          a bihda, 118i aromatic amino acids (AAAs) definition, 707 increased, in hepatic encephalopathy, 724, 724b ART (antiretroviral therapy). The pH of a food has little therapeutic importance, except for patients with existing lesions of the mouth or the esoph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         agus.Most toods are considerably less acidic than the normal gastric pH of 1.0 to 3.0. The pH
of orange juice and grapefi:uit is 3.2 to 3.6, and the pH of commonly used soft drinks ranges from approximately 2.8 to 3.5 (Flick, 1970). More than 707" of the fuel for colonocltesis the SCFA butyrate (4C), which is actually produced more from starch than from fat. Modebe O, Ifenu SA: Growth retardationin homozygoussickle cell disease:role
ofcalorie intake and possible gender-related differences, Am J. Hematol 44:149,1993. Nausea, vomiting, and diarrhea are caused by the cltotoxic conditioning regimen and may later accompany antibiotic administration. The grandmother agrees, and the dietary history taken by the dietary history history taken by the dietary history taken by the dietary history taken by the dietary history h
renal function, there is insufficient evidence to suggest that usual protein intake (10% to 2070 of energy) should be modified (ADA, 2007). and Their Metabolism Foods og 7to10B Most fruits and vegetables Nonfat milk Nonfat yogurt Plain pastaand rice Angel food cake Popcorn, air popped,
unbuttered Soft drinks Jam or jelly Cheese, cheddaqI oz Milk, whole, 1 cup Bologna, beef, I slice Sausage, I p"tty Steak, sirloin, broiled, 3 oz Potatoes, French fried, 10 Chow mein, chicken, I cup Chocolate candybar, I oz Corn chips, I oz Doughnut, cake type, plain, I Mayonnaise, I tbsp 1to3g Popcorn, oil popped, unbuftered, 1 cup Low-calorie
saladdressing, I the Bakedbeans, cup Soup, chicken noodle, canned, I cup Whole wheat bread, 1 slice Dinner roll, I Waffle, frozen, 4 inch, I Coleslaw, cup Flounder or sole, baked, 3 oz Chicken, without skin, baked or roasted, 3 oz Chicken, and 3 oz
Cheese, mozarella, part skim, I oz Chicken, baked or roastedwith skin, 3 oz Egg, scrambled, I Tirrkey, roasted, 3 oz Granola, 1 oz Muffin, bran, I small Pizza.cheese.t/cof 12 inch Burrito, bean, I Brownie, with nuts, 1 small Margarine or butter, 1 tsp Popcorn, oil popped, buttered, I cup French dressing, regulaq I tbsp Unlike carbohydrates, lipids are not
poll'rners; they are small molecules extracted from animal and plant tissues. Lawton C: Radiation therapy for bone marrow or stem cell transplantation. fu with most pulmonarydiseases, body compositionfuctuation is the hallmark nutrition assessment indicator for personswith RE Most patients become severelyunderweight. f{ause4affiminal}
painandfeelingof fullness . ...9. Table 35-2 highlights some components of nutrition assessment. Periodic updated practice guidelines are available online from the Cystic Fi- brosis Foundation and Osmosis can occur at the same time. See also
Older adulthood advance directives definition, 454 nurloon care and, 467-468 support and,525 adverse food reaction coping with, strategies for, 758b definition, 739 development of, risk factors for,744-745 o l a g n o s r so r, / L t 6 - / J / CAP-FEIA blood test in, 748, 7 50, 7 50t food and s)./rnptomdiary in, 7+8, 7+9f food challenge Ln,7 51, 7 53 t o o
delrmrnauondietin, 750-751, 752 tradioallergosorbent test in, 748, 750t skin tests in, 750, 750t, 75lf unreliablet est sin, 750, 750t, 75lf unreliable est sin, 750, 750t, 75lf unreliable est sin, 750, 75lf unreliable est sin, 75lf unreliable est sin,
treatment of, 7 53, 7 54-757b, 7 57, 7 58b, 7 59b advertising, to adolescents, 2 56-257 aerobic metabolism, 588-589 definition, 587 aerophagia, gaLsfrom, 674 affirming, in not-ready-to-change counseling sessions, 499 affirms, definition, 489 After-School Snack Program, 32lt AGA (appropriate for gestarional age),
definition, 1117 age cardiovasculardiseaseand, 85 1-852 gestational, definition, 246 of pregnant adolescents, nutritional needs and, 25 ageism, 286, 288-289 Agenerase (amprenavir), nuuitional complications, 1004t agerasia, 291 definition, 286 age-related macular degeneration (Alv[D),
294 definition, 286 age-related osteoporosis, 62 7 definition, 614 a8eusla definition, 383,959 in nutrition assessment, 395 aggressive refeeding, in anorexia nervosa, 578 aglng cardiovascular structure/function, 887b nutrition in, 286-308 theories, 290,29Lt agnosla definition, 1067 in Alzheimer's disease, 1082 agnosis, definition, 1067 agreeing with a
twist, in modi$'ing resisrance behavior, 503 AI (adequate intake), definition, 337 AIDS dementia, 1006 definition, 991 AIDS enteropathy, definition, 991 air-displacement plethysmography, 2+, 25, 25f in body composition analysis, 405 ALA (ctJipoic acid). Patients with emphysema are thin and often cachectic. firs.usda.govleatsmartplayhardkids/ of
Agriculture U.S.Department www.usda.gov Ethnic and Cultural Food Guides www.nal.usd a.gov/fnic/etextl00002Lhtrnl*Fxtocid2 38181 8 Food and Nutrition Information Center, National Agricultural Library, USDA www.nal.usda. PFSAPtakeson
issuesdealingwith food production, processing, storage, and distribution. A study investigated the effects of aging on the mechanisms of body energy regulation in an attempt to determine the causesof unexplained weight loss in older persons (Roberts et al., 1994). GrahamRE et al. Use of complementary and alternative medical therapies among racial
and ethnic minority adults:resultsfrom the 2002 National Health Interview Suney, J Natl Med Assoc 97(4):535, 2005. Growth should be evaluated and compared with that of other infants of the same postconceptional age (seeChapter 43). Excessive amounts of exogenous th1'roid hormone can promote loss of bone mass over time. 642 PART4
Nutritionfor Heatthand Fitness P la q u eF o r m a ti o n Plaque is a sticly, colorless mass of microorganisms and polysaccharides that forms around the tooth and adheres to teeth and gums. Fermentable carbohydrates are found in four of the six MyPyramid food groups: (1) grains, (2) fruits, (3) dairy products, and (4) added sugars in the category of
fats and sweets. Although some vegetables may contain fermentable carbohydrates, little has been reported about the cariogenicity or caries-promoting properties of vegetables. Examples of grains and starches that are cariogenicity or caries-promoting properties of vegetables. Examples of grains and starches that are cariogenicity or caries-promoting properties of vegetables. Examples of grains and starches that are cariogenicity or caries-promoting properties of vegetables.
consumption of fermentable carbohydrates Food form (e.g., liquid, solid, slowly dissolving) Sequenceofeating foods and beverages Combination of foods and beverages Combination of foods Nutrient composition of foods and beverages Combination of foods and beverag
cereals, and breads. H I J til a. Currently only sibutramine (Meridia) and orlistat are approved by the Food and Drug Administration (FDA) for long-term use in the treatment of obesity. 484 PART3 Nutrition Care Process The Food and Drug Administration (FDA) for long-term use in the treatment of obesity.
supplements to consider taking. To ensure a readily available supply, all cells (primarily the liver and muscles) store carbohydrate in the easily mobilized glycogen polymer (Figure 3-4). Mineral intake should meet the gender and age recommendations according to the DR[. maintain r Concern about excessive supplementation of calcium and vitamin D
has arisen because of increasing recognition of arterial calcification in older individuals and in patients but this is not the usual situation. Because symptoms are slow to manifest themselves and the growth of the tumor is rapid, carcinoma of the stomach is frequently overlooked until it is too late for a cure. Institute
of Medicine: Diaoy rdrence inukes: wattx, potassium, sodiamcblorideanl sulfate, ed l, Washington, DC, 2004, National Academies Press. Tobacco smoking overwhelmingly is the most irrorant causative factor, although environmental air pollution (including cooking in confined, unventilated space) and genetic susceptibility are other etiologic
possibilities. Intake of protein in this range does not appear to be associated with the development of diabetic nephropathy; however, the long-term effects of consuming more than 20"/oof energy as protein on the development of nephropathy has not been adequately studied. If the child is not growing adequately or the adult is not maintaining weight
or body composition, use the following stepsto estimatethe TEE. J Am Diet Assoc104:1651, 2004. The inverse relationship between decreasedcalcium intake and increased risk of periodontal diseasehas also been demonstrated (Ir{ishida, 2000). A wasting diseaseor malabsorptionrequires treatment. Ambivalence (desireversusshould). Becausetooth
decay remains a cofirmon oral disease of childhood, caries are a primary marker for children's oral health. 9f8 PART 5: Medical Nutrition Therapy TueERcuLosrs Pathophysiology (TB) is a bacterialdisease caused by mycobacteTuberculosis ria, specifically MycobacteTuberculosis ria, specifi
in nature and almost always are linked to other molecules by their hydrophilicarboxylic acid head group (seeFigure 3-5, 1). Many systems maintain homeostatic control of blood pressure. What do you think of Rick's nutrient supplementwatch: www.supplementwatch.com United StatesPharmacopoeia:v'\41v.usp.org
Blumenthal M, editor: The ABC clinicalguide to herbs, Silver Springs, Md, 2003, American BotanicalCouncil. The form of carbohydrate is a key factor to patient acceptance and tolerance trettftnentof disease, Engelking C: Diarrhea. In Yarbro CH et al., editors: Cancer ed 3, Sudbury Mass, 2004, Jonesand sympt\mmanagement, Bartlett. VasanRS et al:
Residuallifetime risk for developinghlpertension in middle-agedwomen and men: the FraminghamHeart Sndy, JAMA 287:1003,2002. American Dietetic Association: Evidence-analysis library wrlrw. PrenticeAM: AII caloriesare not eqtal, International dialogueon carbohyd.rates 5(4):1, 1995. Purpose Laboratory-based nutritional testing, used to estimate
nutrient availability in biologic fluids and tissues, is critical for assessment for a subclinical nutrient defciencies. On postoperativeday 1, Thomas' abdomenwas firm and dis-excretion was 21 g/day. High-Energ Dyi e t sf o r W e i g hG t ain A careful history before planning a dietary program may revealinadequacies in dietary habits and
nutritional intakes. Factors that affect the cariogenicity of substrates are listed in Box 25-1. Hormone Growth and Insulin-Like GrowthFactors Ti'eatrnentwith humangrowth hormonemay improve bone through its anabolic effects (Rosenand Bilezekian, 2001). The broad issues in today's community continue to be the same as in the past, but the scope of
practice has expanded with the needs of a rapidly changing community that communicates in new and faster ways. When protected from lipid peroxidation, omega-3 fatty acids have shown antiinflammatory properties and have been shown to be protective against mucosal injury evoked from drugs and H. SpornyLA, Contento IR: Stagesof changein
dietary fat reduction:socialpsychologicalcorrelates, J Nutr Educ 27:191, t995. See also Food-drug rnteracuons for gastrointestinal disorders, 668t in anorexia-cachexia syndrome management, 7 81-784, 7 82-7 83t in end-stagerenal disease, 942t in o b e s i t ym a n a
g e m e n t ,5 5 0 - 5 5 1 ,5 5 l t interactions, with enteral nuffition, 4]7 meeting LDL-cholesterol goals, 843t nutritional implications, I2+2-1247 taste sense and, 441-442, 442b therapy, food effects, +36-439 unbound fiaction, 434 with gastrointestinal effects, +42 -443, 444b, 445b
DRVs (daily reference values), 347t definition, 3 37 DS. Whether this reduced intake must be maintained intely is not known. 69 !t r-Y l\J >rl -tl ,.i tZ 1& ,4vi I I rE 'x r< ,x ie .ir a r1 A iI a o d g : F:4s .! a = +E8 E E H,g+F = d>d APPENDIXES 1249 L25O APPENDIXES The DASH diet is an eating pattern that reduces high blood pressure. Floss
turice daily. GeleijnseJM et al: Blood pressureresponseto fish oil analysisof randomizedtrials, supplementation:meta-regression J Hypmms20:1493,2002. Each drink contains =15 g alcohol. The pulmonary system grows and matures during gestation and childhood. Figure 13-1 depicts DNA as the source of encoded information critical for operating the
myriad of cells in the body and shows how the major components involved in decoding this information are interrelated. Topical fluorides may be administered in the dental office. Becausedifficulty in swallowing (dysphagia) is often the result of a neurologic in Chapter 41. Ready and open access to such information is critical if the benefits of
presymptomatic testing are to be realized. When weight is reduced as a result of trauma, illness, starvation, or changes in diet and exercise, fat cell number does not. Physical activity coefficient 6. Corticosteroids are associated with accelerated protein catabolism, hyperlipidemia, sodium retention, weight gain, glucose intolerance,
and inhibition of normal calcium, 930 PART5 MedicalNutritionTherapy End-StageRenalDisease . 577-581 for end-stagerenal disease, 914-945 blood values and, 936-939t calcium in, 940 lipids in, 944 parenteralnutrition, 945 phosphorusin, 941-943
potassiumin,935,940 protein in, 940 sodiumbalance, 934-935 vitamin D in,941-941 vitamins in,943-944 for epilepsy,1088-1089 for fatty acid oxidationdisorders,I 164 for fibromyalgia,1060-1061 for fistularepair,701 for folic acid deficienry
anemia,827 for food allergylintolerance,739-763 for neurouauma,1097 for galactosemi a, | 62- | 63, | 63t for gastrictures and obstructions, 680-68I for gastroparesis in diabetes, 801-802 for geneticmetabolic disorders, nurritionist involvement,1165-
1166b for glycogenstoragedisease, 1164 medicalnutrition therapy(MNT) (Continued) for gout, 1057-1059, 1058b for Guillain-Barr6syrdrome, 1091 for headinjury 1033 for heartfailure, 884-895 for hemochromatosis, 818 for hepaticencephalopathy, 724-725 for hiatal hernia, 659 for HfV disease, 1010-1013 for hI?ertension, 865-883 for hyponatremia, 723
for ileal pouch after colectomy, 702 for inflammatoryboweldiseases, 692-695 for intestinalgaslflatulence, 675 for irritable bowel qmdrome, 696 for lactoseintolerance, 689 for majorburns, 1034-1037 for metabolic disorders, goals, ll42 for migraineheadache, 1092 for multiple organ dysfunctions 1 'ndrome, r026-1032 for lactoseintolerance, 689 for majorburns, 1034-1037 for metabolic disorders, goals, ll42 for migraineheadache, 1092 for multiple organ dysfunctions 1 'ndrome, r026-1032 for majorburns, 1034-1037 for metabolic disorders, goals, ll42 for migraineheadache, 1092 for multiple organ dysfunctions 1 'ndrome, r026-1032 for majorburns, 1034-1037 for metabolic disorders, goals, ll42 for migraineheadache, 1092 for multiple organ dysfunctions 1 'ndrome, r026-1032 for metabolic disorders, goals, ll42 for migraineheadache, 1092 for multiple organ dysfunctions 1 'ndrome, r026-1032 for metabolic disorders, goals, ll42 for migraineheadache, 1092 for multiple organ dysfunctions 1 'ndrome, r026-1032 for migraineheadache, 1092 for migrainehea
multiple sclerosis, 1094 for myasthenia gravis, 1092-1093 for nephrotic syrrdrome, 924 for nephrotic sy
//z-//5 for pulmonary disease, 903 for renal disease, 928-929 for renal transplantation, 929-93 for renal transplantation, 929-93 for sicklecell anemia, 830 for small-bowelresections, 699-700 for spinaltrauma, 1097-1098 for steatorrhea, 679 -680 for stroke, 1081 for surgery 1037-1038 for small-bowelresections, 699-700 for spinaltrauma, 1097-1098 for steatorrhea, 679 -680 for stroke, 1081 for surgery 1037-1038 for small-bowelresections, 699-700 for spinaltrauma, 1097-1098 for steatorrhea, 679 -680 for stroke, 1081 for surgery 1037-1038 for small-bowelresections, 699-700 for spinaltrauma, 1097-1098 for scale for surgery 1037-1038 for small-bowelresections, 699-700 for spinaltrauma, 1097-1098 for scale for surgery 1037-1038 for small-bowelresections, 699-700 for spinaltrauma, 1097-1098 for scale for surgery 1037-1038 for small-bowelresections, 699-700 for spinaltrauma, 1097-1098 for scale for surgery 1037-1038 for small-bowelresections, 699-700 for spinaltrauma, 1097-1098 for scale for scale for surgery 1037-1038 for small-bowelresections, 699-700 for spinaltrauma, 1097-1098 for scale for sca
systemicinflammatoryresponse qmdrome, 1026-1032 for systemiclupus erythematosus, 1060 for tropical sprue, 686-687 for unders, 654-665 for upper gastrointestinaltract disorders, 1161 for Wernicke-Korsakoffsyrrdrome, 1079 nutrition careprocessand, 455-459 of phenylketonuria, in adults, 1157
posttransplant, 895-896,896t pretransplant, 895-896,896t pretransplant,895 medication-induceddiarrhea,677 medication-induceddiarrhea,677 medicationnutrition therapy(MNT), of bulimia nervosa,580-581 medications. SeeDmg(s) as nutritional risk factors,387t 1334
 Index Mediterranean diet, 349, 349f, 3 50b medium-chain acyl-CoA dehydrogenase (MCAD) definition, 41, 673 for steatorrhea, 680 medullary rystic disease, 927 megaloblasticanemia, definition, 810 megaloblastic anemias, 819 -827 pernicious anemia as, 819-823. Institute of
Medicine (IOM), National Academy of Sciences (I{AS}): Dietary referenceintakes: applications in dietary assessanent, Washington, DC, 2000, National AcademiesPress. There are two aspectsto effective listening: nonverbal and verbal. Blood pressuremay also increasemore in personswith diabetesthan in those who do not have diabetes, and
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exercises hould nor be undertaken if qystolic blood pressure greater than 180 to 200 mm Hg. Exer cise Pr escr iption The ADA recommends that a sraded exercise test with electrocardiogram should serious be considered before undertaking aerobic physical activity with intensity exceeding the 0rigin 78L of Nondiabetic CHAPTER 30 |

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MedicalNutritionTherapy Mellitus and Hypoglycemia for Diabetes demands of everydayliving (more intensethan brisk walking) in previously sedentary individuals with diabetes whose l0-year risk of a coronary is likely to be higher (ADA, 2006b). However, there is no evidence that such testing is routinely necessary for those planning moderately intense labely in previously sedentary individuals with diabetes whose l0-year risk of a coronary is likely to be higher (ADA, 2006b). However, there is no evidence that such testing is routinely necessary for those planning moderately intense labely in the sedentary individuals with diabetes whose long testing is routinely necessary for those planning moderately intense labely in the sedentary individuals with diabetes whose long testing is routinely necessary for those planning moderately intense labely in the sedentary individuals with diabetes whose long testing is routinely necessary for those planning moderately intense labely in the sedentary individuals with diabetes whose long testing is routinely necessary for those planning moderately intense labely in the sedentary individuals with a sedentary individual sedentary individuals with a sedentary individual sedent
 activity suchaswalking. The DV for vitamin C is 90 mg. Clients often only understand 59% of what they are told, and not surprisingly this percentage is lower for native Spanish-speaking clients (Ulrey and Amason, 2001). The practical guide provides tools for the clinician to manage overweight and obese adults Q.trIHandNAASO,2000). aoll?^ls
IsuoBrury :lelP FurroN . Corn is the carbohydrate staple of the American Indian diet, in addition to protein-rich dried beans. Energy Energy needs vary widely from individual to individual to individual to individual to individual to encouraged to eat, evenif not hungry
Lingual caries, or caries on the lingual side (surface next to or toward the tongue) of the anterior teeth, are seen in persons with bulimia or anorexia-bulimia (see Chapter 22). NonHispanic blacks are also more likely to have hypertension and stroke than non-Hispanic whites. FEMA, under the DHS, provides emergency support functions after a
disaster or emergency. Lamberg-AllardtCJE et al: Vitamin D deficienryand bone health in healthyaduls in Finland: Could this be a concern in other parts of Europe? BoneMiner Res16:2066,2001. Most pumps have a complete delivery system available, including bags and tubing compatible with proper pump operation. 494 PART 3
NutritionGareProcess Stagesof Change Precontnumphtion: This is the point at which the patient has not even contemplated having a problem or needing to make a change. Nutrition advicefor eating changes is the point at which the patient has not even contemplative advicefor eating change is the point at which the patient has not even contemplated having a problem or needing to make a change. Nutrition advicefor eating changes is the point at which the patient has not even contemplated having a problem or needing to make a change. Nutrition advicefor eating changes is the point at which the patient has not even contemplated having a problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a change is the problem or needing to make a chan
counterproductive at this point. 360 PART2 i ttutrition in the Life Cycle Of the millions of Americans who profess to be vegetarians, many eliminate "red" meats but eat fish, poultry, and dairy products. Management Any underlyingcauseof underweightmust be dealtwith asa first priority. Client: I feel totally worthless. Dye BA et al: The
relationshipbetweenhealthful earingpractices and dentalcaries in children aged2-5 years in the United States, 1988-1994, 135:55, 2004. 7m illion) (34.1-47.1 Total: million) 39.5 million FIGURE 38-4 Worldwide presence of HW: number of adult
and children estimated to be living with HIV in 2006. The U.S. Department of Agriculture (USDA) and Department Health and Human Services (DHHS) have a shared responsibility for issuing dietary recommendations, collecting and analyzing food composition data, and formulating regulations for nutrition information on food products. A high
calorie, low-protein diet may be usedin casesin Severedehydration which dialysisor hemofiltration is unavailable. In addition Circulatorycollapse to the usualdietary sources frefined sweets and fats, spelntrlnslc cial hi gh-calorie, low-protein, and low-electrolyte formulas Acute tubular necrosis have been developed to augment the diet (see Append tx 32)
Long-term regulationseemsto involve a feedbackmechanism in which a signal from the adipose cell into the bloodsueam, act assignaling molecules and are referred to asadipocytokines. This factor may play agreater role in
younger personsthan in older adults. His hobbies include reading and making model airplanes. Your diet history reveals a usual daily intake of 12 to 14 oz of meat or poultry, 2 to 3 c of whole milk, fruits on rare occasion, corn and potatoes with the dinner meal, and a lunch that includes a luncheon meat and cheese sandwich on white bread. Her dinner
is usually a roast such as briskeg with poatoes and vegeables, and a traditional dessen. Intercultural communicationis most successful preferencesare understood(Gtder and Sucher, 2001). raw I small Beet greens, cooked, % cup Winter squash, cup Winter squash, cooked, % cup Winter squash, cup Winter
cooked, % cup Pickled herring, 3 oz Red sweet pepper, cooked, % cup "1U: International Units; ME, VitaminA (mcg RAES) Galories r+90-9126 134-235 1692 1096 71 103 953 671 573 +89 478 +74 44r 42 27 30 31 20 40 2+ 285-376 75-97 180-376 100-117 301 276 268 260 233 221 219 186 180 20 t9 38 18 46 ll 222 t9
10 Retinol activity equivalent. DietaryFactors Many nutrients and several nonnutrients are susceptible to and which therapeutic
approacheswill be most effecrive in reducing their susceptibility. menopause.orgl National 0steoporosis Foundation References Abrams SA et al: Relationships among vitamin D levels, parathyroid function and calcium absorption in young adolescents, J Clin EndocrinolMetabol g0:5576,2005. Other selenoproteins help regulate thyroid function and calcium absorption in young adolescents, J Clin EndocrinolMetabol g0:5576,2005. Other selenoproteins help regulate thyroid function and calcium absorption in young adolescents, J Clin EndocrinolMetabol g0:5576,2005. Other selenoproteins help regulate thyroid function and calcium absorption in young adolescents, J Clin EndocrinolMetabol g0:5576,2005. Other selenoproteins help regulate thyroid function and calcium absorption in young adolescents, J Clin EndocrinolMetabol g0:5576,2005.
persons with a BMI above 30 for whom other diet programs with psychotherapy have been unsuccessful. Occasionally \LCDs may be indicated for persons with a BMI of 27 to 30 who have comorbidities or other risk factors. There are few reliable databases for iodine, making it difficult to ascertain dietary intake. See also itamin Bp definition, 40
cobalt,134-135, ll8t absorption, 18-19 Cochrane Database reviews ofnutrient and botanical supplementation, 40 coffee intake, cancer risk and,966 cognitive behavioral therapy (CBT), 493 definition, +89,563 in bulimia nervosa, 581 cognitive development, Piagett theory
of, feeding and nutrition and, 228-229t cohort studies, 962, 963b definition, 959 colectomy, ileal pouch afte4702 colic, 760 definition, 199 colipasein digestion, 10 colitis NSAID-induced, nutrient absorption and, 439 ulcerative, 689-695. Essential FattyAcidsandthe Omega-5/Omega-3 Ratio fu mentioned previously, neither omega-3 nor omega-6 fatty
acids can be synthesized by humans, although humans can desaturate and elongate linoleic acid (18:2 n-6) to arachidonic acid (20:4 n-6) and alpha-linolenic acid (20:4 n-6) are acid (20:4 n-6) and alpha-linolenic acid (20:4 n-6) are acid (20:4 n-6) and alpha-linolenic acid (20:4 n-6) are acid (20:4 n-6) and alpha-linolenic acid (20:4 n-6) are acid (
officials, and the iodine intakeof pregnantwomenappears to vary widely. Some products have 360 or 500 or as much as 575 kcal in a can (see Appendtx 32). Flasse, Manager, TlansplantNutrition Baylor Regional tansplant Institute Bay'or University Medical Center Dallas, Texas Sherrylt. Box 20-6 presents nutrients and substances that are being
investigated for their potential therapeutic effects. USeFULWEesrrEs Arthritis Foundation Supplements arthritis on D iag n osis: Excessive bioactive substance intake related to daily intake of multiple supplements evidenced by intake of supplements that conflict with
medications(e.g.warfarin, garlic, and antidepressant containing St. John's wort). Water fluoridation as one of the top 10 greatest public health achievements for Disease Control and Prevention listed water fluoridation as one of the top 10 greatest public health achievements for Disease Control and Prevention listed water fluoridation as one of the top 10 greatest public health achievements for Disease Control and Prevention listed water fluoridation as one of the top 10 greatest public health achievements for Disease Control and Prevention listed water fluoridation as one of the top 10 greatest public health achievements for Disease Control and Prevention listed water fluoridation as one of the top 10 greatest public health achievements for Disease Control and Prevention listed water fluoridation as one of the top 10 greatest public health achievements for Disease Control and Prevention listed water fluoridation as one of the top 10 greatest public health achievements for Disease Control and Prevention listed water fluoridation as one of the top 10 greatest public health achievements from the prevention listed water fluoridation as one of the top 10 greatest public health achievements from the prevention listed water fluoridation as one of the top 10 greatest public health achievement from the prevention listed water fluoridation as one of the top 10 greatest public health achievement from the prevention fluoridation as one of the top 10 greatest public health achievement from the prevention fluoridation as one of the top 10 greatest public health achievement fluoridation as one of the top 10 greatest public health achievement fluoridation fluoridation as one of the top 10 greatest public health achievement fluoridation as one of the top 10 greatest public health achievement fluoridation as one of the top 10 greatest public health achievement fluoridation achievement fluoridation achievement fluoridation fluoridation fluoridation fluoridation fluoridation fluoridation fluoridation fluoridation fluoridation flu
term studies imply that the diseasewaxesand wanes but appearsnot to be selflimiting. DietaryReference Intakesfor Potassium for Children andAdults Age (years) 1-J +-8 9-13 14-18 19 + Malesand Females (ng/dayl Pregnancy (ngldayl Lactation (mg/dayl 1000 1800 4700 N/A N/A N/A 4700 4700 N/A N/A N/A 5100 5100 Selected FoodSources
of Potassium Food Sweet potato, baked, I potato (146 g) Tomato paste, 7+cup Beet greens, cooked, % cup Potato, baked, flesh, 1 potato (156 g) White beans, canned, % cup Yogurt, plain, non-fat, 8-oz conrainer Tomato puree, % cup Clams. Some oral supplements provide a nutritionally complete diet if taken in sufficient volume. \ l anessais a 30-
month-old child who was diagnosedwith V CF shordy after birth. Thus arachidonic acid (20:4 a-6 or 20:4 n-6), the major highly polyunsarurated fat in mem- branes of land animals, is an omega-6 fatty acid. risk in postrnenopausal MichaelssonK et al: Serumretinol levelsand the risk of fracture, N FnglJ Med 348:287,2003. Nutrition support should not be a support should not be a support of the support should not be a support of the support of
enhance the quality of life and the health care team plays an important role in alleviating patient and family concerns and fostering informed decisions (Mitsumoto and Del Bene, 2000). Goodlooking and good-tasting food can help people feel more dignified. Individuals may experience gastrointestinal and vasomotor s).rynptomssuch as abdominal
cramps, diarrhea, nausea, vomiting, flushing, fainmess, diaphoresis, and tachycardia (Radigan, 2004). The term undeiweight is often a percentile, and presence fmedical complications. Supporting structures include the skeleton and the
muscles(e.9., the intercostal, abdominal, and diaphragm muscles). Nerves, blood, and lymph supply all tissues(Figure 35-1). J lfupm*t 19:857, 2001. Aug-ustssonK et al: A prospective study ofintake offish and marine fatty acids and prostate cancer, Cancer Epidemiol Biomarkers Prea 12:7 4, 2003. Ideally fluid and electrolytein take should balance the net
output. The heavier person, because of the higher weight expends more energy than one who is less obese, loses faster on a given calorie intake than a lighter person, because of the higher weight expends more energy than one who is less obese, loses faster on a given calorie intake than a lighter person, because of the higher weight expends more energy than one who is less obese, loses faster on a given calorie intake than a lighter person. govlhgmis/publicat/primer2 00 I www'cdc.govlgenomics CoreCompetencies in Genetics Essential forAll Health CareProfessionals References www.n chpeg.orglcore,/core.asp E t h i c a
IL, e g a la, n dS o ci aIssu l es www. Thus atherosclerosisis the underlying cause of many forms of C\rD. govlh gmis/proj ectlinfo.htrnl www ornl. fu gene variants among populations. Obese Dersonswho lose even small
amounts of weight (50/oto 10% of initial body weight) are likely to improve their health in the short run by reducing the severity of the comorbidities associated with obesity (Anderson and Konz, 2001). Characteristics include rapidly developing carious lesions in the primary anterior teeth and the presence of lesions on tooth surfaces not usually
associated with a high caries risk (Berkowitz, 2003). Estimates of energy expenditure (EER) at various levels of physical activity can be determined using the EER prediction equations; a valuable tool for assessing energy expenditure (EER) at various levels of physical activity can be determined using the EER prediction equations; application of these prediction equations a valuable tool for assessing energy expenditure (EER) at various levels of physical activity can be determined using the EER prediction equations; application of these prediction equations as valuable tool for assessing energy expenditure (EER) at various levels of physical activity can be determined using the EER prediction equations; application of these prediction equations are consuming the expension of t
Diabetes Does Discriminate, in Chapter 30). Insulin has three characteristics:onset, peak, and duration (Table 30-7). Tubes can also be placed with endoscopic or fluoroscopic g-uidance (Metheny and Meert, 2004). pylori infection and peptic damage. See also Spina bifida neurodegenerative disease, research on, centers for, 47 5t neurodevelopmental
outcome, for preterm in f ant, 1 1 3 7, 1 1 3 8 f neuroglycopenic symptoms definition, 765 of hypoglycemia, T9T neurologic disorders, 1070t classification, 1068 complicating HIV disease, 1015 developmental disabilities, ll82-1190. Most patients with
chronic kidney diseaseor on renal dialysis need to be aware of the potassium in their dies. CHAPTER37 i MedicalNutrition Therapyfor Cancer Society: fns.usda. Henry CJ: Mechanismsof changesin basalmetabolismduring aging, Eur J Clin Nutr
54(suppl3):77,2000. Nev- DailyTraceElementSupplementation for AdultTotalParenteral NutritionFormulations* Trace Element Intake Chromium Copper Manganese Zinc 1G-15mcg 0.3-{.5mg 60-100mcg 2.5-5.0mg ertheless,generalconsiderationsaslistedin Box 20-4 canbe applied to almost any protocol. Primary tooth development begins ^t2 to 3.5 t
months' gestation. For the last decade numerous studies with large numbers of patients report only a small or weak relationship between homocysteine and atherothrombotic C\{D (Kaul et al., 2006). In the absence of contraindications, peoplewith type 2 diabetes should be encouraged to perform resistance exercise three times a week, targeting all major
musclegroups, progressing to three sets of 8 to 10 repetitions at a weight that cannot be lifted more than eight to ten times (ADA, 2006b). Wotecki CE et al: Keep food safeto eat:healthful food must be safeaswell asnutritious, J Nutr 131:5025-509s, 2001. The prevalence of UpperGastrointestinal Disorders and Nutritional Consequences Gastrointestinal
Condition Common Symptoms Possible Nutritional Gonsequences Esophageal reflux or esophageal reflux disease (GERD) Acid taste, increased belching, hoarseness, dry cough, burning sensation upper middle of chest, sometimes especially cause discomfort
AsTrinptomatic, or contributes to prolonged exposureo[ esophagusto gastriccontents with reflux slrinptomatic, or difeculty chewing, swallowing, epigastric discomfort, delayedgastricemprying Altered food choices, not eating evening meals, avoidance of acid foods, reduced quality and quantity of dietary intake Reducedenergy intake, diet not
nutritionally complete, decreased fiber intake, weight loss May not have any consequenceor may experiencediscomfort after meals and with position changes Anorexia. In people with such abnormalities, therapy is often complicated by mental retardation, ranging from mild to severe. Another goal is to minimize the effects of nutrition impact
s).rrnptoms and to maximize the individual's nutrition are known as goitrogens and occur in some foods. Continued. Garcinia cambogia
Hydroxycitric acid is the active ingredient in garcinia cambogia, and it is promoted to reduce the body's ability to store fat. See also Phosphorus sulfuras, I 13-114, I13b microminerals, 114-127 copperas, I 25-127. See also Copper fluorideas, I 24-125 food sources, I 14 functions, I 14 general characteristics, I 14
rronas,114-120. Later in development, obesity is common in those with trisomy 21, Klinefelter's qmdrome, and Tirrner's slmdrome; and nutrition therapy is helpful in controlling weight and preventing the diabetes and cardiovascular complications that typically accompany obesity.
supplement o Administration instructions: with food? Linoleic acid alters prostaglandin metabolism, thereby producing both proinflammatory and immunosuppressive effects, particularly at high doses and at faster infusion rates (Mizock and DeMichele, 2004). The nutrition support practitioner has a responsibility to know whether documentation,
such as a living will regarding the patient's wishes for nutrition support, is in the medical record and whether counseling and support resources for legal and ethical aspectsof patient care are available to the patient and his or her significant others. Consequently cultural factors may be neglected in dietary assessment and interventions. Frequent
intake of fermentable carbohydrates, combined with repeated episodes of induced vomiting of acidic stomach contents, results in a constant influx ofacid into the oral cavity. The first observation led to the hlpothesis that parenteral nutrition, particularly during acute and critical illness, causes a breakdown of the
 gastrointestinal mucosal barrier and increases its permeability to bacteria and endotoxins, in turn contributing to sepsisslmdrome and multiple organ dysfunction qmdrome (Deitch, 1992) (see Chapter 39). .5002'ZtLlptaxunaqy 0002, 6ttl Mnaq[ stilrquV 'aaur1 uldg *rn3'seseesrprrterunorJrroJ srotreJ4srrf:eterq )H lor{3 drq eqr;o surJr.ltJeoetso pue Jo
 lueure8eueruIecrpeu ' :180loleruneqy3o e3e1o3 u?rrreur\y' 100Z't0ZI :0stusqoqwary,s.reprosrp eqt ro] suonepuaruruoced '5002'96Z:(9)6 pet?lerstl pue uaa.t{teq 8.mgpayl uatn3f, sarde:erp lno8 uon?rcosse cneuaS elqegord 'dV sr-"ep pue lnoS IerlrurgJo sarntueJIEta IS ueq3 D-d\IJ-rrw Jo sesncr8ololerrrrep Jo stJeJJa Ieq?llJO :gfl raqols
 .9002,tg91:(t .L661 .l6tt0t runaq[sturquv ,sa:f,'atvtrs Z56)L9tptual :srso.ralcs tueuuee]lue^up-srserftoddg ltderegrSnrp SulrotruorujoJsaurlaprnS erp uo tueruruoJ cruretsd5:le te J salfiqO 't002 'Zt unN ull] -tng 'ausotpuf,ss,ue.r80[g :etsxeJlorpauqtr,y\PeleeJlslueEudsnrJrpJBproleunorlJur Lrepuoces LS f pue l-reurrdqtr,4a ueruo.r ur e{plur tuarJtnN :public for the control of the
ra ygf >1eurra3 :15 ue8rory'gg uocrely uonetueruelddns elBIoJro; seur1eprnC ' ' ' S002' S:l S &,!lWW' 200Z'selelspetrull-snrrr (tre t00Z lt tZ tul lo1uru.naq[ 'snrrqtreprotBrunerlrgtln sruenedur pasou8erp-rotcop; otcedrurpu? .1 part per million (ppm) : 1 mgll-. (CourteryDaniel V Schidlma,MD, Pediatic Puhnunaryand Cyxic FihrosisCenter,St.
Christopher\Hospitalfor Children, Philadelpbia, Pa) 914 PART5: MedicalNutritionTherapy Estimation of Daily Energy Requirementin CysticFibrosis o estimate a caloric prescription, you need the following data: 1. Some clients blame other people for their problems (e.g., a wife may blame her husband for her inability to follow a diet). History and
physical eraminarion reveal severe dyspnea on exertion, including showering, carrying packages, making bed, and pushing a vacuum cleaner; orthopnea (two or three pillows); and decreased breath sounds. Differentiation between the effects of advancedage and malnutrition in older adults has received research attention, as is the influence that
nutrition support has on the quality of life among long-term-care residents (SomogyiZaltd et al., 2002). The most commonpresentation nism, a major control of blood pressure. Decreased blood follows a streptococcalinfection and is usually, althoughnot volume causescells of the glomerulus (the juxtaglomeru- always, self-limiting. It forms a complex with
calcium in urine; thus lesscalcium is available to bind urinary oxalate, which helps prevent the formation of calcium phosphatestones. Distal RTA, acidosisaccompanied by hlpokalemia, malabsorption slmdrome with enteric hlperoxaluria, and excessivemeat intake (acid ash) are associated with decreasedurinary citrate levels (Morton
et al., 2002). Citrate Citrate is a urinary stone inhibitor. Pulmonary complications include acute and chronic bronchitis, bronchiectasis, pneumonia, atelectasis, and peribronchial and parenchymalscarring. trE E 6'- a bo - E E X = E.g qxi_ = trg Z H cE d ESa O(JA G e 2- E o H L G 6 6 q T UO N 6 -. However, heavy alcohol consumption may be
accompanied by poor dietary intake and cigarette smoking, which may be contributing factors. fu a cavity develops, the plaque shields the tooth, to some extent, from the buffering and remineralization action of the saliva. She has alwayschewed sugar gum but since quitting smoking has increased her gum chewing three jumbce tooth, to some extent, from the buffering and remineralization action of the saliva.
packs (18 sticks per pack) of cinnamon-flavored sugar gum daily. Biochemisny Holliday R. Peptic ulcer refers to an ulcer that occurs as a result of the breakdown of these normal defense and repair mechanisms. They are usually used for early postoperative enteral nutrition in combination with gastric decompression. The small lumen size of the
needle-catheterjejunostomy can be problematic because it is easily dislodged and not all formulas flow readily through it. Use of this efit (Ir{achtigalet al., 2005). The pathology in this acute and severenutritional deficiency is restricted to the CNS. Each of these options is described in the following paragraphs. The American Dietetic fusociation
provides educational handouts focused on both nutrient and botanical supplements (2007). St. Louis, 2005, M^4.) I{ephriticSyndrome Pathophysiology Nephritic syndrome Pathophysiology Nephritic
presentin smallamounts. If these normal wasteproducts are also called capillary loops of the glomerulus. These diseases, not eliminated appropriately, they collectin abnormal quanares uddenin onset; lasta short acuteglomerulone phritides, tities in the blood, a condition known as azotemia. The time; and proceed to either complete recovery development ability
of the kidney to adequately eliminate nitrogenous of chronic nephrotic qtndrome, or ESRD. Fructose (also known as leauloseandfruit sugar) is the sweetest of all monosaccharides (Table 3-1). The galacturonic acid structure of pectin absorbs water and forms a gel; thus it is widely used for making jams and jellies. cancer.gov/cancertopics/typesflung
NationalInstituteof Diabetes and Digestive and KidneyDiseases-Cystic Fibrosis Research www.niddk.nih.gov N utriti o n D iag n osis: Food-medication interaction related to low potassium inake while on diuretic as evidencedby latest senrm poussium 1. 7. Additional Resources: Along with the referencescited in this chapter, see American Dietetic
AssociationMedia ReleaseSeptember 12,2005: Disastercnnd Frnergencies: Are YouPrepared? Data International Continuous Compenia Continuous Continuous Compenia Continuous Compenia Continuous Compenia Continuous Continuous Compenia Continuous Co
advanced until the catheter tip is in the superior vena cava, using strict aseptic technique. Sodium is restricted, depending on the level of urinary excretion. In the oliguric phasewhen the sodium output is very low, an attempt is made to keep intake low as well, perhapsaslow as 20 to 40 mEq/day. However, limiting sodium is often impossible because of the level of urinary excretion. In the oliguric phasewhen the sodium output is very low, an attempt is made to keep intake low as well, perhapsaslow as 20 to 40 mEq/day. However, limiting sodium is often impossible because of the level of urinary excretion.
requirement for manyfV solutions (includingfV antibiotics, medications for blood pressure, and TPI.D. The administration (hyponatremia). For this reason, all fluid above the daily calculated water intoxication (hyponatremia). For this reason, all fluid above the daily calculated water intoxication (hyponatremia). For this reason, all fluid above the daily calculated water intoxication (hyponatremia). For this reason, all fluid above the daily calculated water intoxication (hyponatremia). For this reason, all fluid above the daily calculated water intoxication (hyponatremia). For this reason, all fluid above the daily calculated water intoxication (hyponatremia). For this reason, all fluid above the daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia). For this reason, all fluid above the daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxication (hyponatremia) and the face of oliginal daily calculated water intoxicati
source of systemic fluoride is fluoride is fluoride is fluoridated water; food and beverages supply a smaller amount. Patient's or family's ability to handle the financial commlffnent 4. Slips and relapsesare normal, expectedoccrurencesas a person seeksto change any long-standing panern of behavior. Whereastotal cholesterolwaspreviouslyrecommendedas a screeningtool
AIP-III now recommends a complete Iipoproteinprofile for screening. Fluoridation is "the adjustment of fluoride in the water supply to an optimal concentration of 0.7 to 1.2 ppm" (Palmer and Wolfe, 2005). DASH can be an excellent way to lose weight. Stressreduction. This means that one normal individual in 20 would have a value below or above the
reference range. To facilitate obtaining information, health care providers should approach patients in an open, nonjudgmental manner. Beckwith-Wiedemann s1'ndrome is characterized by organ overgrowth, including an oversized tongue, which leads to feeding difficulties and for many infants hypoglycemia. Factors that increase glomerular
pressure tend to accelerate this process, whereas factors that decrease glomerular pressure tend to alleviate it. Rabinovitch R et al: Impact of nutrition support on trearment outcome in patients with locally advanced head and neck squamous cell cancer treated with definitive radiotherapy: a secondary analysis of RTOG trial 90-03, Head Neck Zgtigl
 2006. It is crucial to remember that energy balance and nitrogen balance are intertwined. Continued 1044 PART5 i MedicalNutritionTherapy Gout Weight management; purine controlled diet; adequatefluid consumption; 40% complex carbs, 30"/
fat (mosdy unsaturated),30% protein with moderate calorie restriction; restrict or eliminate alcohol Tailor diet to individual needs; caloriesto promote IBW; restriction ofprotein, fluid, and sodium if renal involvement; possiblegluten intolerance Adequate fluid; high-energy protein supplements as needed; moist foods; modifications for GERD if needed
Increase in sodium and fluid if hlpotension present; vegan diet Lupus Scleroderma Fibromyalgia/ chronic fatigue SilJEqesn Jrorp paJEJt uele eABqauos :E941 erurs uon -eturuBgur pur ured ro; dpauar Furcryeur E sE punore ueeq aneq '1req .ry\oll. {\uror; pa^uop pue urrrdsr ur se ,seleldcrp5 'stelaJtJqraddoc pue esEJerp ur sB,eulcrperu IJEq,4aollr.4aJo
uI slooJ Jratp elcrl serparueJ((lBJnlEu,,ll8utueas aurog ' GOOZ'UlV),,fllecgrluarcs parpnts lou esoql JoJ uoDnEc sesl^pe puB a^rpaJJs puB a;es ua,rord ,{lecgnuarcs parpnts lou esoql JoJ uoDnEc sesl^pe puB a^rpaJJs puB a;es ua,rord ,{lecgnuarcs sardereql esoqr Jo uoDerSalur eqr sr.loddns,,l5oloterunaqu a8e11o3 uBJrroury eql Jo 'tuaure,tordurr go spouad dq pe-,no11o;3urues.ro,ra. Attention to individual tolerance and food
preferences will help maximize intake. Saturated fats' especially those with long chains (e.g., beef tallow), are solid at room temperature; but a fat such as coconut oil, which is also highly saturated, is semiliquid at room temperature; but a fat such as coconut oil, which is also highly saturated, is semiliquid at room temperature; but a fat such as coconut oil, which is also highly saturated, is semiliquid at room temperature; but a fat such as coconut oil, which is also highly saturated.
and cancerprevention: the 2001. SeeAdverse food reaction care managementalgorithm, 739 food and nutrient intake data, on nutrition status of Americans, 339-340 food and q'rnptom diary, definition, 739 foodborne illness, 320, 325-329t definition, 309 food challenge definition, 739 double-blind
placebo-controlled. What indications of hipermetabolism are evident in this patient's history? In addition, females with Tirrner's sprdrome have only a single X chromosome. Once the type and extent of oral manifestations are identified, a nutrition care plan can be developed. ...... The intake of for anabolism, wound healvitamins and minerals necessary
ing, and immunity, and those with antioxidant functions may need to be increased. For example, during anabolism mineral balancemust be monitored in an anticipatory manner to prevent the refeeding syndrome (see Chapter 20). If recovery is to occup it generally takes place within 2 to 3 weeks of the time when the underlying insults have been
corrected. Commercial companies manage nutrition support therapy alone or in combination with other home therapies and may be affiliated with acute care facilities or private subcontractors. For example, for the energy prescription some clinicians tart with 1.2 to 1.4 X calculated REE. One certainly was to take the woman's word seriously and allow
Heabh Perspecl108:701,2000. Which nutrients would you discusswith Maria (e.g., total fat, saturatedfat, sodium, potassium, calcium)? d*g "1J'srtrrglre rulues pue e{etul, iruterq:lBte W pue1e81ag Jo suorleJtuaJuoJ 'eturotso;axqtl.& sluen?dauro.rpu.{s 'I00C'1wt L6 f ruaq 77r qusr8o(5ur sarpntsFuoDlrrnu pue aJIIJo lrIFnO:1era g;4 deg '866I 'lL0tt09l
 n8aaT qsa32'stuepxonue pu? The type of parenteral nuffirion support is determined by the clinical and nutrition status of the patient and the type of rV access(DeChicco and Steiger, 2006). infections, Cochrane for peripheralarterialocclusivedisease, al: Garlic RG et Jepson DatabnseSystRn, CD000095' 2000. "For healthy active Americans and
Canadians at the reference height and weight. SeeDovn s1'ndrome DSHEA. These genes and their variants are of most interest to nutrition professionals in the era of nutritional genomics because they confer susceptibility to disease but that susceptibility to disease but that susceptibility can be minimized through tif disease susceptibilities and a growing body of knorlledge that will
form the basis for developing strategies for disease prevention and intervention that are specifically targeted -The to the underlying genetic mechanisms. The proteins coded for by the genes provide the metabolic machinery for the cells. References Clark M-Nl et al: Body imagetreatmentfor weight concerned smokers:a pilot
study, AddictBehaa301236, 2005. What referrals might be possible for her 4-year-old sister and her mother? essentialtat ........... suorsel eruau praqduad pue FJlueJ ut pacuauad -xa'&rartrsues pauarg8rer (uonesuassseuqunu plsaqlsarEd ern]rE4 es f 'rea arp ruor; Suruun-rpInB reelJ EaqrJolo IIDIs e 8unse88ns geqela egl Jo luerue, rour Aelunlorrut
 pezuelcursr{r aseasrpe,,rrsserSord {deraq1uollplnNteolpa4 : gfUVa g90T JrJtBrr{JAsOuo uonEr.uroJur roJ zb r?4deqJ IsuorlrppB eas) rJel ro rqBIJ rer{tre 'ssg(u oqol IE}uo{ Jeqlo ro rorrrn} E plEJOqlcru e8ueqc &rTeuos.radJo, erucur, uorssardap se qcns suortctseJrueurcrrlergcdsd'suortelueserd xeldruoc tsoru eql rego lluoruuor eroJaJaqrpue
 sartrlrl]e xelduroc lso(u Jno Jo ar]nos aql a]BurEJq er{} uI saqol IEtuo{ eq] suotsa'sspl l l l 0 su 6t s 6ulzl;eco- 1 '(€-It elq[) suorneu ro]oru re,l.r.olro raddn ragrre Jo seDrltruJouge pcrdftoatets Sura-res -qo dq .,{ypcruqr pernpap aq ueTo uec urelsls sno^rau erp ur uorsel e Jo uortecol ag1 'uondruralur lnogtr,{r sal]snru ol p:oc purds eqt uro{ puetxe
suoJneu eserlJ. (suornau Jotoru ra., tof suoJneu Joloru proc purds atll ot tceuuoc . {aqr ara11 'proo purds arp ul suoneunsap rrer.p o] . {ulr aqr IF suox? Glucose must never be given before thiamin reserves. Overfeedingis to be avoided
-o -- |r;; EE xo x: '$ s U -* ra >. Sequencevariations may causemajor disruption to function and result in a diseasestate or in the minor differences that lead to physical and functional variability between individuals (Figure 13-5). Inacriviry usually coupled with excessive TV watching or sittine in front of a computer or gamescreen must be
cliangedfor"thechild to eventually reach the long-term weight goal. Studies have monitored the effects of television watching on children (Klesges et al., 1993). Variable BW 0.8-1.2 g/day or 40 mg of oxalate in urine/day
plays an important role in calcium stone formation and is observed in 10% to 50% of recurrent stone formers. govl http://www. Most practitioners agree that enteral nutrition and provides advantages to the patient that parenteral nutrition does not. Harik-Khan RI et al: Body mass index and the risk of
COPD, Chestl21:370,2002. Acidic foods promote tooth erosion that increasesrisk for caries. Eating within hours of retiring. The ratio of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density; thus particles with higher levels of protein to fat determinesthe density and higher levels of protein to fat determinesthe density and higher levels of protein to fat determinesthe density and higher levels of protein to
functions of the kidney tubules make them susceptible to injury. The Pathophysiohgtand CareManagnnent Algorithm, Parathyroid Hormone-Mediated Post-Menopausal Bone Osteoporosis, lists severalrisk factors and illustrates different scenarios of older or younger postrnenopausal women that lead to osteoporosis, lists severalrisk factors and illustrates different scenarios of older or younger postrnenopausal Bone Osteoporosis, lists severalrisk factors and illustrates different scenarios of older or younger postrnenopausal Bone Osteoporosis, lists severalrisk factors and illustrates different scenarios of older or younger postrnenopausal Bone Osteoporosis, lists severalrisk factors and illustrates different scenarios of older or younger postrnenopausal Bone Osteoporosis, lists severalrisk factors and illustrates different scenarios of older or younger postrnenopausal Bone Osteoporosis, lists severalrisk factors and illustrates different scenarios of older or younger postrnenopausal Bone Osteoporosis, lists severalrisk factors and illustrates different scenarios of older or younger postrnenopausal Bone Osteoporosis, lists severalrisk factors and illustrates different scenarios of older or younger postrnenopausal Bone Osteoporosis, lists severalrisk factors and list of the postrone of the postrone
The flesh of animals slaughtered in a humane way as outlined by Islamic law is considered halal (according to Islamic law). Glutamineis an amino acid that plays a pivotal role in metabolic processes; it is used by intestinal and immune cells as fuel. Lancet 358:1487.2001. If large dosesof insulin are required, oral medications such as insulin sensitizers
are often combined with the insulin regimen. These objectives are achieved through coordinated efforts of an interdisciplinary team (see Clinical Insight: Home Tirbe Feeding-At Its Best). Dairy products, by virtue of their calcium- and phosphorusbuffering potential, are considered to have low cariogenic potential. The discomfort may be related to
organic causessuch as esophageal reflux, gastritis, or peptic ulcer, gallbladder disease, or other identifiable pathology. SPIRATION Pulmonaryaspiration, or the movement of food or fluid into the lunp, can result in pneumoniaor even death. Proper body positioning when eating is essential for everyone. At increased risk are infants; toddlers; older
 adults; andpersons with oral, upper gastrointestinal, neurologic, or muscular abnormalities. Besidesliquids, foods that are most easily 904 PART5 i Medical Nutrition Therapy aspirated include those that have a round shape such as nuts, popcorn, and hot dog pieces; or chunls of inadequately chewed foods such as meat or raw vegetables. Thin women
particularly of northern European extraction, are more at risk of osteoporosis than heavier women. The role of the nutrition professional you can play a role within your own family and community by helping them to prepare safeand
adequatefood for an emergency. Categorizing or labeling . Perhaps we need to step back and wait for things in your life to calm down. SlindeF et al: Energy expenditurein underweightchronic obstructive pulmonary diseasepatients before and during a physiotherapyprograrnme, Eur J Clin Nutr 60:870,2006. Hope exists when there are alternative
approachesto a problem. Epinephrine and norepinephrine levels increase when a person is angry or afraid, resulting in the "fight-or-flight" response. Glucocorticoids such as cortisol are steroid hormones elaborated by the adrenal cortex in the fasting or stressed state
Nutrients and other bioactive food components can also serve as ligands, molecules that bind to specific sequences (response elements) within a gene's regulatory region. ua>1ods Sugeedarprlelogoa 8uu,r,o1p.rs lrlncglrp pl6pqds, {p Ilaus IeruJouJo uopJolsrpElluOS, {p atsetparredrurEtsna6sfp t1ncggrpSur4eadssa>lstuqcrqzn,qcaedsol IERues -se
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rlTqnd Jo l:lsrutlg ueqnJ aqr 'eqn3 ur perrnJco se8ueqc leonqod Pu? In a hospital setting establishinga nutrition protocol increasesthe likelihood of appropriate enteral feeding, thus lelding better clinical outcomes such as decreasedduration (Barr et al., 2004). The use of speciallyformulated pulmonary proprietary products
should be reservedfor patiens fitting the specified criteria. Carnitine is a nitrogenous compound slmthesizedfrom lysine and methionine that is required for oxidation of longchain fatty acids. In Shils ME, OlsonJd ed 8, Philadelphie, 1994,Let & Febiger. Some evidence suggests that regulation takes place on both a shortand a long-term basis. However,
oxalate absorption, which is 37" to 8% of the amount in food, is affected by the amount of dietary calcium. and Their Caregivers for 3- to 10-Year-0ldGhildren 0ral Healthand NutritionMessages Rationale Starchy, sticky, or sugary foods should be eaten with nonsugary foods. americaon themove.org American Society of Bariatric Surgery
wwwr.asbs.org (CDC) for Disease Centers ControlandPrevention www.ndlbi.nih.govlguidelines/obesity/practgdc.htm TheObesity NAASO, Society www.naso.org Shape UpAmerica! wwwshapeup.org/
WeightControlNetworlls -sR srstq aqt uo ssetueuoq saJns€erufrlauolrsuap auog rueJeJJrp I?JeAasle ,(lsnoauellnurs rnJJo , toq lq palecqdruoc sr flrsuag l p r a u t rauu o gp u pt u a l u o 3 a u 0 gl 0 l u a u a r n s p a w senl? poolq $r;o uonete.rdJetur eJoJeJeqtlxrrteur euoq lEJautw;o uond:osar eqr
Sur, trolloJpeseelal osle sr ta4nru uoneru -roJ euoq E peraprsuor 'urclecoelsg '(aVUf) esereqdsoqd prr? 1999. According to a recent FDA statement there is insuffrcient evidence to support any of the proposed health claims of chromium supplementation. Why are you taking these dietary supplement(s)? GullestadL et al: Reviewof trials in chronic heart
failure Am J showingbroad-spectrumanti-inflammatoryapproaches, 17C, 2005. Carotene givesit a slight yellow color. Personsat highestrisk (Box 33-2) shouldbe suongly encouraged monitor disease; (2) reduce risk facrors; (3) manage stable COPD; and (4)
manage exacerbations. Clinical studies appear to corroborate the experimental models and demonstrite a role for protein restriction in the management of patiens with mild-to-moderate renal insufficiency for the purpose of preserving renal function (Giordano, 1981; Remuzzi and Bertani, 1998). ThingalosEG: Congestiae beartfailare: nurrition
 nonogentent fu oldr aduhs, Washington, DC, 2002, Nutrition Screening Initiative (NSI). 178 PART2, Nutritionin the Life Cycle Calcium Intally Pa ^. The effects of protein on regulation of energy intake, satiety, and long-term weight loss have not been adequately studied. For example, BMD of the lumbar vertebrae may be increased by as much as
150/o after I year of treatment, and total body BMD may be increased by 57" to 10%. Final weight goals should be individualized and chosen realistically, with reduction of body fat as the focus. For example, reference ranges based on gender, Lge, ra'ce, and so fonh, can be developed. orglonline_resources. You can follow other image posters. "Tell me
why you pickedon the ruler." "Why did you pick insteadof 1 or 12?". Fatty acids occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains with an even number of carbons and are classified occur primarily as unbranched hydrocarbon chains and are classified occur primarily as unbranched hydrocarbon chains and are classified occur primarily as unbranched hydrocarbon chains and are classified occur primarily as unbranched hydrocarbon chains and are classified occur primarily as unbranched hydrocarbon chains and are classified occur primarily as unbranched hydrocarbon chains are c
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I 049-l 050 in parenteral feedings for end-stage renal disease,945 in rheumatoid arthritis, 1055 niacin as, 86-88. Antibiotics, contrast agents, and other drugs Vascular disorders Bilateral renal infarction Acute glomerulonephritis of any cause Poststreptococcalinfection Systemic lupus erythematosus Postrenal Obetrustlon Benign prosutic hypertrophy
 with urinary retention Carcinoma of the bladder or prostate Retroperitoneal or pelvic cancer Bilateral ureteral stones and obstruction Flaid. gov/healtlr/public/heart/hbp/dash/ National HighBloodPressure Education Program www.nhlbi.nih.gov WorldHypertension League www.mco.edu/org/whl References American Heart fusociation: 2001 Heor-t and
stt"okestatirtical apdate, Dzlla1 2 00 l, American Heart Association. Thorsdottir I, Gunnarsdottir I, Gunnar
respiratory infection, severity of lung disease, and severity of malabsorption. When laboratory methods to determine energy requirements are convenient to use (see Clinical Insighr; Estimation of Daily Energy Requirement in Cystic Fibrosis and Chapter 2). These variations in genetic
information are thought to be the basisfor the physical and functional differenles berweenindividuals. Gastric ischemia with GI hypoperfusion, oxidative injury reflux of bile sals and pancreatic en4lrnes, microbial colonization, and mucosal barrier changes 664 PART5 MedicalNutritionTherapy LOWer esophageal sphincter Esophagus Lessercurvature
Fundus, body cardia---oxyntic glandarea Pyloricglandswith gastrin-secreting G cells Pyloris Duodenum B c D u o d e n a lulcer. Patients with familial dyslipidemiashave uiglyceride levelsin the borderlinehigh or high
range(hypertriglyceridemia). Ti-iglyceridesin the very high range place the patient at risk for pancreatitis. These patients usually have hlperchylomicronemia andrequire dietsvery low in fat (i.e., l0o/oto 15% of caloriesderivedfrom fat). Puckett R, Norton C: Disasterand emergenrypreparedness in food seruiceoperatiozs, Chicago 2003, American Dietetic
readily apparent on angiograms; howeveq smaller lesions are often not visible, nor are lesions that have undergone remodeling, a process where the blood vessel enlarges to accommodate the narrowing lumen. MassonLF et al: Geneticvariation and the lipid response to dietary intervendon: a systematic review, Am J Clin Natr 77:1098,2003. Being
awareof personalbiasesand approaches allows the counselor to be more effective in understanding what the client needs in order to move forward. They make it very clear that they want to stop the dietary regimen. Miltiadous G et al: Gene pollnnorphismsaffectingHDLcholesterollevelsin t}re normolipidemic population, Nut Dis 15:219,2005. The
 dietary reference intakes range from 15 to 90 rng/dry as shown in the following table, with a tolerable upper intake ofno more than 2 g/day (2000 mg/dey). Genotyping Oralor IV antibiotics Aerosolantibiotic Inhaledmedications Chestandphysicaltherapy and the lungs FIGURE 35-2 The major function of
the respiratory tract is to provide the oxygen for cellular metabolism and to remove the carbon dioxide that is produced but not needed. Ability to comply with the standardsfor safety 6. No more than a pea-sizeamount of toothpaste should be placed on a child's toothbrush to reduce the risk of accidental fluoride ingestion. The basic requirements for
carbohydrate and fat as actual nutrients for nourishment are infuenced by the underlying orgen system decompensation, the patient's respiratory status, and the ability to use more of the energy inrake, and it increases bone mineral
density, which is especially important for women (see Chapter 24). What are the differencesin metabolic response between thomas initial presentation and his postoperative and the problems and then asks the client to write down the
plan. The effects of alcohol on triglyceride levels are dose dependent and are greater in persons with triglyceride levels exceeding 150 mgldl. At this stage the counselor works with the patient on advantages and disadvantages of making dietary changes. Exenatide is associated with reduction in A.1C and modest weight loss (Kendall et al., 2005). Good
dietary practices with adequate nutrient, fruit and vegetable, and fiber intakes may decreaserisk of complications from H. The amount ofiron the body absorbs varies, depending on several factors. In general, fruits and vegetables provide many bonehealthy nutrients; potassiumis considered an especially powerful protector of bone because of its role in
generating an alkalineash(I.{ewet al., 2000; Tircker et al., 2001) (see Clinical Insight: Acid fuh and Alkaline fuh Diets in Chapter36). Many nutritionally complete formulas are available (seeAppendix32). To addvariety to the diet, ordinary foods such asfruits can be pur6ed and mixed with water until liquefied. Seeaho Folic acid (folate)
absorption of,90 defrciency,92 anemia from, 823-827. Limit consumption of acidic foods such as sports drinks, juices, and maintain healthy gastrointestinal mucosa. NutritionSupport 5L7 Enteraland Parenteral 20
Intervention: CHAPTER ENTERALNUTRITIONSUPPORTORDER Date: DX: Time: Reasonfor TF: E N T E R A LN U T R I T I O N S U P P O R TO R D E R S: 1 ROUTE: Checktube type () PEG/G-TUBE () PEG/G
isolate. Preventrenalosteodystrophy. Acute esophagitis may be caused by ingestion of a corrosive agent, viral inflammation, or intubation. Iodine is also added in the diet because it is used in the feed ofanimals and in many processed or preserved foods as a stabilizer and a component of red food dyes. Resting energy expenditure for infants with
Components of Nutrition Assessment for Infants With Bronchopulmonary Dysplasia Historical Nutritional 24kcaVoz), the adequary of fluid intake and urinary output must be monitored closely. Acute effects of TBI are often difficult to discern since it is glven in conjunction with conditioning chemotherapy (Lawon, 2003). Bischoff-FerrariFIA et al.
 Fracrurepreventionwith vitamin D supplementati on, JAMA 293:2257,2005. Often parenteral nutrition is used temporarily until adequate gastrointestinal function decreases a ffecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary production decreases affecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary production decreases affecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary production decreases affecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary production decreases affecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary production decreases affecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting salivary gland function (e.g., Sjcigren's syndrome), as a side effecting syndrome (e.g., Sjcig
and infant foods; Va to V+ tsp daily is usually adequate in this situation. Because the response to supplements is determined largely by a person's nutrition status, persons with micronutrient deficiencies are most likely to respond favorably. Because the pathophysiology of CLD and BPD are incompletely understood, medical treatment and nutrition
intervention are empirically based and often have limited scientific rationale (Ho, 2006). Studies point to the positive influence of MI on changes in dietary behavior. Herben V Vitamin B12.In BowmanBA, RussellR&[, editors: Presentknowledge in nutrition,ed 8, Washington,DC, 2001b, InternationalLife SciencesInsdrute Press. Many inflammatory
proteins are now known to Disease851 CHAPTER 32 I MedicalNutritionTherapyfor Cardiovascular come from the adipocyte; this is an area of activeresearch (Berg and Schereq2005)(seeChapter21). than when eaten alone. A simple rule is to divide ideal calorie level by 4 for a 25% fat intake (e.g., an 1800-kcal intake would need to include 450 kcal
from fat, or, at about 9 kctUg, about 50 g of fat). CFSAN also runs cooperative programs with state and local governments. For these persons' parenteral nutrition is life-sustaining the efficaq of conjugated linoleic acid, lead to
increasedinsulin resisance, the growth of unwanted ginseng, glucomannanr green tea, r,-carnitine, psyllium, hair, and a drop in high-density lipoprotein cholesterol, inpyruvate, and St. John's wort in weight loss, it is imporunt creasingthe risk for hean disease(seeChapter 32). The Dietary SupplementHealth and Education Act of 1994 (DSHEA) is a law
that clarifies marketing regulations for botanicals and reclassifies them as dietary supplements, distinct from food or drugs. Useantibiotics, sucralfate, antacids . SeePeak bone mass PBM (peak bone mass PBM (peak bone mass), definition, 615 PCBs (polychlorinated biphenyls), exposure, in pregnancy, I80-18I PCOS (polycystic ovary syndrome), 542b PDCAAS (protein
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methylation, (2) histone modification, and (3) genomic imprinting. Reviews of trials in which participants were administered typical dosesof or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle therapy found an incremental weight loss of 3 to 5 kg in or listat along with lifestyle the along with lifestyle t
specific patient's macronutrient needs is made on an individual basis, with close monitoring of outcomes. Stark LJ: Can nutrition counsellingbe more behavioural? The DV for viumin A is 5000 IU. Administration time may be decreased because of patient ambulation and bathing, tests or other treatrnents, intravenous administration of medications, or
other therapies. Continaed. Complementaryand alternativemedicine (CAM) therapiessuchasacupuncture, moxibustion, chiropractic, naturopathy, and phytotherapyare commonly practiced in the United States. Upp€rrespiratory tract Functional components of the respiratory system Diaphragm Epithelial basement
membrane Alveolar epithelialwall Surliactantlayer Interstitial space FIGURE 35-1 The anatomy of the pulmonary systemis highly complex and interdependent. During the first 24 hours after surgery foods that are best accepted are typically chilled or frozen dairy producs or fruit slurries, and noncitrus juices. Intentional use of a foodborne pathogen as
the primary agent might be mistaken as a routine outbreak of foodborne illness. In hereditary fructose intolerance, fructose added to the diet. Eyre H et al:
Preventing cancer, cardiovascular disease, and diabetes: a common agenda for the American Fleart CA Cancer Association, J Clin 54190,2004. Most multiple vitamin supplements contain vitamin D. All such products must undergo rigorous testing by the manufacturer and scrutiny from the
FDA before they are approved and marketed to the public. The effect on the potential safety o? Chronic inflammation may be involved in the development of hypertension as well. The opposite occurs when tryptophan is presenr in the environment: the organism inhibits the endogenous biosynthesis of tryptophan by inhibiting transcription of the genes
that encode tryptophan biosynthetic proteins. Often oral supplements are useful. HIV-l mutates readily and has become distributed unevenly throughout the world in different strains, subtypes, and groups. Cunningham J et al. Calorie and protein provision for recovery from severeburns in infants and young children, Am J Clin Nutr 51:553,1990. These
tubes have various desicn features such as weighted or nonweighted tips and stylets to guide placement. Childhood obesiry increases the risk of obesiry increases the risk of obesiry in adulthood. Home health agencies have to meet minimum federal requirements for patient care. ATBC Cancer Prevention Study Group: The effect of vitamin E and B-carotene on the incidence
oflung cancer and other cancers in male smokers, N Engl J Med 330 1029, 1994. McMahon K et al: Integrating proactive nutritional assessmentin clinical practices to prevent complications and may significantly increaseblood uric acid concentrations. Modest
consumption of alcohol does not appear to be pathogenic for peptic ulcers unless coexisting risk factors are also present. which is often called the "strole belt." The age-adjustej death rates for CHD and stroke have been declinins since the late 80s. Palmer CA, AndersonIJB: Position of the AmericanDietetic Association: the impact of fluoride on Heilrh, January CA, AndersonIJB: Position of the AmericanDietetic Association 
Am Diet '4ssoe 200:1208,2000. The eating pattern is reduced in saturated fat, total fat, cholesterol, and sweet and provides abundant servings of fruits and vegetables. The use of probiotics has been studied in the prevention, management, and eradication of H. Diabetes Diabetes, like hlryertension, is both a disease and provides abundant servings of fruits and vegetables.
a risk factor. The net effectis that reduced-obese personsare facedwith the necessity of maintaining reduced energy intake even after the desired weight has been lost. As a nutrition professional, what would be your advice to her? Select manufacturers of dietary supplements should also maintain their own reporting system for adverse even the desired weight has been lost.
on bone mineral density test results coupled with food intake history and glucocorticoid medications use, additional vitamins D and K also may be necessary (see Chapter 24). Diets rich in phytochemicalsmay help reduce the risk of developing certain types of cancer, but their exact mechanisms are not totally understood. The expertise of a
knowledgeable nutrition professional is invaluable in mitigating the detrimental effects of these disorders on nutritional status (see Chapter 45). Aguilani R et al: Is nutritional intake adequate in chronic heart failure patiens? ReinmarkL et al: No effectof vitamin A inake on bone mineral density and fracture risk in perimenopausal women' Orteoporos
Int 15:872,2004. They were developed to help consumers determine if a food contains a lot or a little of a specific nurient. Courtesy of Marjorie Geiseq RD, NSCA-CPT One crucial aspectof this stage is the processof discussing thoughts and feelings about current status. Usually the individual is able to progress to oral intake with specific dietary
recommendations to minimize nutrition impact slrnptoms, which include dumping syndrome, dysmotility, gastroparesis, early satiety, vomiting, and fluid and electrolyte imbalances. Some formulas without fat,
sources of essential fatty acids must be provided; essential fatty acid deficiencies have been noted among individuals consuming fatfree formulas (Cleary et al., 2005). A health claim is a written claim on the dietary supplement label that has two essential components: (1) a substance and (2) a d, is ease or health-related condition. Data
from National Digestive DiseasesInformation Clearinghouse, accessedFebruary 17, 2006. Stimulus control involves modification of (1) the settings or the chain of events that precede eating, (2) the kinds of foods consumed when eating does occur, and (3) the consequences of eating. Before participating in any type of physical activity and exercise
program, individuals should be advised to undergo evaluation by qualified professionals, who can then design an individualized physical assessmentand activity olan. Tivo networks of self-help support groups are OvereatersAnon) mous (OA) and ThkeOffPounds Sensibly (TOPS). KerstetterJE et al: The impact of dieary protein on calcium absorption and
kinetic measures of boneturnover in women, J Clin Endatinol Metabol90:26,2005. Snack on cariostatic and anticariogenic foods such as cheese, nuts, popcorn, and vegetables. Replacement therapy (ERT), or hormone-replacement therapy, a treatment previously used for reducing bone resorption and arresting
early postrnenopausal bone loss in women, is no longer recommended except for a period of a few years after the menopause. The physiologic role of lipoproteinsincludestransportinglipid to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage, or useassubstrate for slmthesis of other compounds such as providing to cells for energy, storage for energy as providing to cells for energy as pro
metabolicroles, the lipoproteins alsovary in atherogenicity. Prepare slurry with a liquid that goeswell with the food being prepared. Hyperosmolar formulas sliould be advanced conservatively to ensure tolerance. I 5 mmoVl is allowed . The proximal defecs such as in Fanconi's qrndrome and has very little
clinical significance by iself, whereas distal RTA leads to severe osteomalacia, kidney stones, and often nephrocalcinosis (calcification of the kidney). fu with amino acids, a 10% solution yields 100 g ofcarbohydrates per liter of solution. See also\itrmin A (retinol) definition, 41 retinol activity equivalents (RAE$, 72, 72b definition, 41 retinol-binding protein
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diabetes In two randomized, placebo-controlled studies in Chinese subjects with diabetes, chromium status because the chromium status was not evaluated either at baseline or
after supplementation. The known sample is called a control, and if the value obtained for the sample is outside the range of normal analytic variability, both the specimen and control are measuredagain. Infants and young childrenshouldnot be put to bed with a botde. Teeth and gums should be cleanedwith a gauzepad.or washcloth after all botde
feedings.All efforts shouldbe madeto wean childrenfrom a botde by I yearofage. Juicecanbe provided in a diluted form in a cup (Bowenand Lawrence, 2005). Therefore an albumin increase, for example, include walking, bicycling, jogstg, swimming, and many
sports. Epidemiologicstudiesfind a correlationbetweenimproved standardof living, high animal protein intake, and a rising incidenceof kidney stones. Excessiveanimal protein intake modulatesseveralurinary risk factorssuchashypercalciuria, hlperuricosuria, hyperoxaluria, low urine pH, and hypocitraturia, all of which increase the risk of kidney stones.
(Martini andWood, 2000). Urinary urate actsasa promoter of heterogeneousnucleation of calciumstoneformets are sensitive to meat protein in terms of oxalate excretion. The mechanism does not seem to involve vitamin 86 deficiency. Prevalence is 1.2Y" as compared to of stoneformation in vegetarians 3.8% in
the general population (I'{goyenet a1., 2001). The stomach is commonly used for esophageal reconstruction. Kraft MD et al. Review of the refeeding slmdrome, Nu* Clin Praa 20:625, 2005. How would you address the concern about medications? RECOMMENDATIONS: Registered Dietitian: ENTERALNUTRITIONSUPPORTGUIDELINES: PHYSICIAN: 1
Antibiotics and proton pump inhibitors are the primary medical treatments. The covalent attachment of methyl groups to CpG dinucleotides within the regulatory region ofgenes results in silencing oftranscription of that gene. Excess dietary carbohydrate and protein are also converted to fatty acids in the liver by means of a comparatively inefficient
process, lipogenesis. By comparison, simple carbohydrate-based snacksand dessertfoods (e.9., potato chips, pretzels, cookies, cakes, and doughnuts) provide gradually increasing oral sugar concentrations for a longer duration because these foods often adhere to the tooth surfaces and are retained for longer periods than candies (Lingstrom et al.,
2000). How can I stay on the right path when that happens?" Nutrition Counselor: "You feel frustrated becauseyou want to follow the diet, but at the same time you want to be spontaneous with your husband. About 30o/oto 40"/" of adults claim to have frequent indigestion, and over 50 million visits are made annually to ambulatory care facilities for
syrnptoms related to the digestive system. Decreased bone mineralization starts during childhood and addressed(Aris et al., 2005). SeePrimary biliary cirrhosis PBM. com Research Cancer Foundation www.preventcancer.org National Cancer Institute www.cancer.gov References Abu-AbidS et al. Obesityand cancer, J Med 33:73,2002. se
Pueuruorer nof lq8gu ddererp d:erueuralduroc;o adlr IBIL\{ 'z iuonEnfls luer]m Jeg Suueprsuoclarp qeuuel-re14qceorddenof pportr rhoH 'I ure8 rqSlarn,tq PecuePhesBssol rq8rarnroJ leIP elerrdordde ol Perelarrrcgap e8pel'nou1 uolflrfh|l:xr uoBr.Dnupue pood :T S|SOUEPI0 'q]BruoN JaII uojTBol suees OIVSN aqr ameceqdgeJnleu strIJtpreoelsoJeq
sPue4 Jeq rulp sqJal { Pu? The preparative regimen includes qtotoxic chemotherapy, with or without total-body irradiation, to suppressimmunologic reactivity and eradicate malignant cells. Am J Clin Nutr 8l(suppl):2185,2005. zt 20 t7 15 t4 t2 t2 t2 10 10 5 4 4 SampleMealPlan Breakfast Dinner % cup oatrneal (6 mcg selenium) I medium scrambled
egg (14 mcg selenium) I small banana Vz ary low -fat/ fat-free milk 3 oz meadoaf % cup macaroni and cheese (20 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg selenium) % cup fresh steamed gteen beans Lunch I turkey sandwich (36 mcg seleniu
multivitamin/multimineral supplementally. There appears to be no significant advantage of alternative nutritive sweeteners such as fructose over sucrose. Replacementof renal function during ARF can be carried out as standardhemodialysis; peritonealdialysis; peritone
venoyenous hemofiltration small ultrafilrration membrane powered by the patient's own blood or a pump to producean ultrafiltrate that can be replacedby parenteralnurrition fluids. anr Lfll^'tPeJeelJsI lBql lrl eJ IEJouI uoFuele{ r em glpn pereelr sr lerp xuLleqd ut uonualeg r :&rynoyolaqtto atlur r0 auouqtqxa[o147 dlsnoaueluodsPeJeelJsI letll
uoDueleJ Iero ro uoEecnseruPernPergrr-'ner (especially high in fat and calories), and minimizing alcohol consumpflon. The nutrition counselor more fully understands the client by labeling
a feeling. w o () (.) U iF = 4. Each culture involves a series of values, ideas, assumptions, and beliefs about life and a common system of encoding and decoding verbal and nonverbal messages (Ulrey and Amason, 2001). Black DM et al: Fracturerisk reduction with alendronate in women with osteoporosis: the fracture intervention trial,
Metabol35:4118,2000. cdc.gov/ data2OI 0/, accessedJuly l, 2006. Appropriate nutrientsupplementation Nutrition, mealplanning, and portion-size education Developedby L. Becausethere is a low level of fluoride in breast milk, other sourcesoffluoride in the diet of an infant should be assessed. Fluoride supplements are not recommended for breast fed
infans living in fluoridated communities if these infants receive drinking water between feedings. If the infant doesnot as over-the-counter supplements. Men of all ethnicities may have male-to-female sexual contact, are not identified as homosexual or bisexual, and may also have male-to-female sexual contact. Often pediatric patients with cancer are not
bedridden but are as active as their healthy peers. A common recommendation is to change dressings at the catheter site every 48 to 72 hours; the Centers for Disease Control and Prevention (CDC) Calculation Considerationsfor Enteral and Parenteral Nutrition Enteral 1. Counseling is one of the most complex types of intervention. Swirling
vegetablestogether is simple and makesa great plate presentation; peasand carrots are striking together and taste great. Several chronic and acute diseaseshave oral consequences that affect eating ability. Holick CN et al: Dietary caroteneids, serum B-carotene, and retinol and risk oflung cancer in the alpha-tocopherol, B-carotenecohort study, Am J
Epidemiol156:536,2002. To maintain a high level of awareness, physician education programs in nutrition status and care to the forefront in team discussions of the patient's overall care planning and implementation. Milgrom P:
Mutans streptococcidoseresponseto xylitol chewing gtln, J Dent Res85:177,2006. Frequent fluoride exposurevia topical fluoride on the tooth enamel (see Focus On: Water Fluoridation). This product is not intended to diagnose, treat, cure
or prevent any disease." However, there is a lack of research as to the awarenessor interpretation of this statement by consumers. Without food? The best nutritional means of prevention is the optimal nutrition at all cohol drinking
determines the effect of the APOE locuson LDl-choles rerol concentrations men: the Framingham Offspring Study, Am J Clin Natr 73:736, 200l. Hong WK et al: Prevention of second primary tumors with isotretinoin in squamous-cell carcinoma of the head and neck, l, Engl J Med 323:795, 1990. 16 if PAL is estimated to be = | .+ < 1.6 (Low active) PL:
1.27if PAL is estimated to be > 1.6 < 1.9 (Active) PA: | .44 if PAL is estimated to be > 1.9 < 2.5 (Very active) Normal and Overweight [kg] + 503 x Height [m]) where PA: Physical activity coefificient: PA: I.0 if PAL is estimated to be > 1.0 > 1.4
660.7 \text{ x Height [m]}) Physical activity coeffrcient: 1.0 if PAL is estimated be > 1.4 < 1.6 (Low active) | .27 if PAL is estimated be > 1.4 < 1.6 (Low active) protein, and arnino acidt, From Institute of Medicine, Food and Nutrition Board: Dietary
referenceintahesfor energ6 carbohldrate, fiberi fat, fatty ncids, cholesterol, Washington, DC, 2002, The National AcademiesPress, w.nap.edu. Comprehensive nutrition assessmentin individuals with CF was first codified by the Cystic Fibrosis Foundation in 1992 (Ramsey et al., 1992) and updated In 2002 (Borowitz et al., 2002; Sinaasappel et. In
addition, certain dietary factors affect absorpcion: Combine heme and nonheme sources of iron. Ambivalence is normal. Recendy this practice has become controversial. A positive effect of aerobic exercise was observed in overweight children who participated in an 8-week program (I("lly et a1.,2004). Omega notation is used in this chapter. Loss of
estrogenfollowing natural or surgicalmenopauseis associated with increasedCVD risk. gov/ta/ 0l 5 / 0l 5 statement.htrn Food U.S.Department of Agriculture Tables Composition and DietAnalysis http://nutrition.ur,rn. Could you start at
the beginning and tell me how it has been for you?" . The first practical applications of this changed focus in health care involved the medical and pharmaceutical asDects of acute care, but nutrition therapy is expected to figot. An astute counselor will avoid giving advice about change and will not feel badly if the client does not agree to change.
Reduced absorption of iron, calcium, and other nutrients occurs in chronic gastritis becauseof the role of gastritis becauseof the role of gastritis because fine the role of gastritis because
designation [email protected], a governmentapproved certifier must inspect the farm or processor; obtaining this designation is voluntary @SDA, 2002). Motorfunctionlosses . Parenteral nutrition prescriptions require preparation or compounding by competent pharmacy personnel under laminar airflow hoods using aseptictechniques. Prescriptions are
compoundedin rwo generalways. Ninety-five percent of the apolipoproteins in LDLs are apo 8-100, known, as apo B. American Dietetic Association (ADA): Position of the American Dietetic Association (ADA): Position (ADA): Position
grains, fortified breakfast cereals, and dairy producs. There have been numerous improvements since the original operation, and the most successful modification is the Greenville Gastric Bypass, also known as the Roux-en-Y gastric bypass (RYGBP) (Figure 21-5). Referrals to a speech therapist can yield dramatic positive results through evaluation and
individualized instruction in swallowing and positioning techniques. Dumping slmdrome is a common complication of gastric surgery and it is manifested by the rapid transit of foods or liquids (especiallythose highly osmotic bolus feedings. gov/ fnic/
He a l t hC a n a d a http://www.hc-sc. Too much thyroxine can causeweight loss. The fact that R-NIR decreases rapidly at the onset of a weight-reduction diet, by as much as 150/0 within 2 weeks, indicates that other adaptations to the lower weight and the threat ofdeprivation are taking place. Insulin secretagogues (sulfonylureas and meglitinides)
promote insulin secretion by the B-cells of the pancreas. Krebs-SmithSM et al: Low energyreportersvs. fu with any drug treatment, physician monitoring for efficacy and safety is necessary. Depending on the fat content of a person'sdiet, this lowered absorption can represent 150 to 200 kcaUday. Fish can be eaten with dairy or meats. Homocysteine
Lund CL, Browder NC: The estimation areas burns, Szrg Crynecol Obstet79:J52, 1944. Seea/soComplementary and alternative medicine definition, 470 therapies, wage, 47 l, 473, 474f, 47 5 intercellular water, 145 interdisciplinary nutrition support services, 527 interleukin-1 definition, 1021 in metabolic suess, 1022 intermediate-density
lipoproteins (IDLs), 839 definition, 833 intermittent drip feeding, 514 definition, 506 intermittent drip feeding, 514 definition, 463b intermittent drip feeding, 514 definition, 506 intermittent drip feeding, 514 definition, 506 intermittent drip feeding, 514 definition, 463b intermittent drip feeding, 514 definition, 506 intermittent drip feeding, 514 definition, 514 
definition, 365 1330 Inder rntervenuon counseling for change as,489-505. However, in the SI system only I. The conditions are considered by HW infection. Similarly, patients Disease839 for Cardiovascular NutritionTherapy CHAPTER 32 i MeOical lacking lipoprotein lipase
(LPL), the enzymethat hydrolyzestriglyceridesinto fatty acidsbeforeentry into the cell, also havevery high triglyceridelevels and food
hibits. Lutein and zeaxanthin re given combined and as single amounts. Factors that increase or decrease gastric acidity are listed in Box26-2. and cuhure, ed 3, Belmont, Calif, 2001, Wadsworth, Thomson Learning. Growth hormones have been studied in oatients with wastins associated with human immunodeficiency virus, but few data are available
regarding their use with cancer cachexia and anorexia. RiordanJ et al: Identificationofthe cysticfibrosisgene:cloning and characterizationof the cornplementaryDNA, Saezce 245 1066.1989. Their personal weight-loss goals and expectations are often unrealistic and not achievable. The diameter of the blood vessel markedly affects blood flow. Thiamin
is administered prophylactically to alcoholics to prevent disease progression and even to reverse the brain abnormalities that are not yet permanent changes. From 50 to 100 mg of parenteral thiamin should be administered for several days because of the possibility of coexisting gastrointestinal malabsorption. tall and weighs 135 lb. cow's mllk, 206-207 miles and the prophylactically to alcoholics to prevent disease progression and even to reverse the brain abnormalities that are not yet permanent changes. From 50 to 100 mg of parenteral thiamin should be administered for several days because of the prophylactically to alcoholics to prevent disease progression and even to reverse the brain abnormalities that are not yet permanent changes.
ketogenic, 63 limiting, 63 definition, 41 metabolism, disorders, ll43, ll46t, ll48I 159 phenylketonuria as, 1143, ll48-1I57. These approaches include exercise, strength activities, fallsprevention, LIV lamps, and special hip padding. In cigarenesmokersfood componens and specific nutrients have been investigated as a ll48-1I57. These approaches include exercise, strength activities, fallsprevention, LIV lamps, and special hip padding. In cigarenesmokers food componens and specific nutrients have been investigated as a ll48-II57. These approaches include exercise, strength activities, fallsprevention, LIV lamps, and special hip padding. In cigarenesmokers food componens and specific nutrients have been investigated as a ll48-II57. These approaches include exercise, strength activities, fallsprevention, LIV lamps, and special hip padding. In cigarenesmokers food componens are a ll48-II57. These approaches include exercise, strength activities, fallsprevention, LIV lamps, and special hip padding. In cigarenesmokers food componens are a ll48-II57. These approaches include exercise, strength activities, fallsprevention, LIV lamps, and special hip padding. In cigarenesmokers food componens are a ll48-II57. These approaches include exercise include exercise and a ll48-II57. These approaches include exercise are a ll48-II57. These approaches are a ll48-II57. These approaches include exercise are a ll48-II57. These approaches are a ll48-II57. The ll48
modalities for lung cancer. Findings indicate that highdose B-carotenesupplemens may be beneficial (Flercberg, 2005). ASTHMA Pathophysiology Asthma is a disease of bronchial hiperresponsiveness and airway inflammation, leading to airflow obstmction. Margie Lee
Gallagher, PhD, RD KEY TERMS acetyl coenzymea (acetyl GoA) a molecule produced by fatty acid oxidation amino acid an organic compound containing an amino acid score a methodof protein evaluation which the milligrams of the limiting
essentialamino acid in the test protein are divided by the milligrams of the sameessentialamino acid in the referenceprotein amylopectina form of starchcomposedof smaller, linearmolecules (105 to 106 daltons) that is less than 1% branched antioxidanta substancetlat can inhibit
reactions of free radicals such as reactive species of oxygen; used to describe vitamins C and E, some carotenoids, ubiquinones, and bioflavonoids ascorhicacid vitamin C, a water-soluble vitamins C and E, some carotenoids, ubiquinones, and bioflavonoids ascorhicacid vitamin C, a water-soluble vitamins C and E, some carotenoids, ubiquinones, and bioflavonoids ascorhicacid vitamin C, a water-soluble vitamin C, a water-soluble vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorhicacid vitamin C, a water-soluble vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorhicacid vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorhicacid vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorhicacid vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorhicacid vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorhicacid vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorbicacid vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorbicacid vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorbicacid vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorbicacid vitamin C and E, some carotenoids, ubiquinones, and bioflavonoids ascorbicacid vitamin C and E, some carotenoids as a subject to the carotenoids as a subject tof the carotenoids as a subject to the carotenoids as a subject to
glucans(glucopyranose) polysaccharides that occur with branching, which makethem lesslinear than cellulose and thereforemore soluble; found in oatsand barley beriberineuropathycausedby thiamin deficiency) of the mineral; implies
retention of the mineral in the body and its usein cellular or rissuefunctions bioflavonoidsgroup of vitamin Jike substances found in plantswith antioxidant activities Sections of this text biotin a sulfur-containing vitamin slmthesized by
microorganisms in the lower gastrointestinal tract calbindins calcium-binding proteins found in intestinal amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required cofactor derived from the essential amino acids methion in ear a required from the essential amino acids methion in ear a required from the essential amino acids methion in ear a required from the essential amino acids methion in ear a required from the essential amino acids methion in ear a required from the essential amino acids methion in ear a required from the essential amino acids methion in ear a required from the essential amino acids methion in ear a required from the essential amino acids methion in ear a required from the essential amino acids methion acids me
lysinethat facilitatestransferof long-chainfatty acidsacrossthe mitochondrial membranes and is essentialfor the oxidationoffatty acids carotenoidsyellow or red pigmentsfound in carrots, sweet potatoes, leafizvegetables, milk fat, and eggyolk, which can be converted into vitamin A (retinol) in the body ceruloplasmina plasmaprotein that
transportscopperand actsasan oxidase(enzyme) cellulosea carbohydratemade of long, straight glucose polymersin B linkage that resistshydrolysisin the human digestivetract; a dietary fiber chiral carbon atom with four different atoms or groupsattached, can form isomers chitin a homopolymer of .A/-acetylglucosamine in the exoskeletonof
invertebrates; sometimes included in food products as chitosan, a fiber component; possibly has a hypercholesterol in the skin is photoly sed by ultraviolet irradiation cholesterol found in cell membranes of all animal tissues that is
alsonecessary for production of bile and steroid hormones choline a metabolic precursor of the key structural element of membranes, phosphatidylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for media and steroid hormones choline and steroid hormones choline and steroid hormones choline, and the neurotransmitter acetylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes, phosphatidylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes, phosphatidylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes, phosphatidylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes, phosphatidylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes, phosphatidylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes, phosphatidylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes, phosphatidylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes, phosphatidylcholine, and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes and the neurotransmitter acetylcholine chylomicronslip protein particles for membranes and the neurotransmitter ac
systemic circulation 40 PARTI Nutrition Basics cobalamin-vitamin Bp a B-complex vitamin with porphyrinlike, cobalt-centeredcorrin nucleus; plays important roles in the metabolism of propionare, amino acids, and single carbons; absorption requires presence of finite interest.
is an essenrial component of the mitochondrial electron transport system; vitamin-like metabolite with redox properties cretinism a congenital condition typically caused by severe iodine deficiency during gestation; characterized by arrested physical and mental development and subnormal intelligence deamination removal of nimogen groups from
organic molecules denaturation dissociation of the tertiary stmcture of proteins by mechanical agitation, heat, cold, acidity, or alkalinity dextrins intermediate products of starch hydrolysis dextrose glucoseproduced by the hydrolysis of cornstarch dietary fiber intact and intrinsic plant material that is not digestible by human gastrointestinal tract
enz)rynes; may be soluble or insoluble diacylglycerols(diglycerides)lipids with only two fatty acids attached to the glycerol molecule disaccharides sugars capableof being hydrolyzed into two monosaccharides and the sugar capableof being hydrolyzed into two monosaccharides and the sugar capableof being hydrolyzed into two monosaccharides and the sugar capableof being hydrolyzed into two monosaccharides and the sugar capableof being hydrolyzed into two monosaccharides and the sugar capableof being hydrolyzed into two monosaccharides and the sugar capableof being hydrolyzed into two monosaccharides and the sugar capableof being hydrolyzed into two monosaccharides and the sugar capableof being hydrolyzed into two monosaccharides and the sugar capableof being hydrolyzed and the sugar capableof being hydrolyzed and the sugar capableof being hydrolyzed and the
diet: threonine, tryptophan, histidine, lysine, leucine, isoleucine, methionine, valine, and phenylalanine; formerly called "indispensableamino acids" essential fatty acids ferritin an iron-apoferritin complex that is the major storage
form of iron in the liver and other tissues folic acid (folate) a specific folate vitamer also called pteroylglutamic acid, a deficienry of which results in macrocytic anemla free radicals atomic or molecular species with unpaired electrons that are highly reactive, take part in chemical reactions, and can cause cell destruction; one example is highly reactive
oxygen fructans nonabsorbed polymers of fructose; support the growth of beneficial colonic bacteria; examples are fructooligosaccharides functional fiber nondigestible carbohydratesthat have been extracted or manufactured from plants
that have a beneficial physiologic effect in humans galactose a monosaccharideproduced by the hydrolysis of lactose (sucrose), or glucose (maltose) glucose the main monosaccharide to fructose (sucrose), galactose), or glucose (maltose) glucose
tolerance factor (GTF) a biologically active chromium complex found in foods; unknown structure glutathione peroxidase (GSH-Px) a selenium-containing enzqe that is the major active form of selenium in cells glycemic index the ranking of different dietary carbohydrates on their ability to raise blood glucose levels as compared with a reference food
glycogen a branched-chain glucose polyrner used for glucose storagein animals glycolipids membrane lipids with one or more sugar molecules attached to the polar head group; high concentrations in the brain goiter a chronic enlargement of the thyroid gland, visible as a swelling at the front of the neck; commonly associated with iodine deficiency
goitrogens compounds that block the uptake and use of iodine by thy'roid cells and contribute to iodine deficiency and goiter; some are cabbage, turnips, rapeseeds(from rape plants), peanuts, cassava, sweetpotatoes, kelp, and soybeans; inactivated by cooking heme iron the nonprotein, insoluble, iron-containing protoporphl'rin that is a constituent of
hemoglobin, myoglobin, and a few other proteins hemoglobin a conjugated protein containing four heme groups and globin, with the property of reversible oxygenation hemosiderin a complex insoluble form of storage iron hepcidin a small regulatory peptide hormone that acts on the mucosa cell and inhibits iron absorption and iron release; amount
produced by the liver is related to the amount of iron stored in the liver hydrogenation of oils increasessaturation and makes the oil more solid at room temperature hydroxyapatite a crystalline structure in bone consisting of calcium phosphate
and calcium carbonate hypercarotenodermia an accumulation farotenoids members of a large family of lipids with a carbon skeleton based on five-carbon isoprene units with alternating single- and double-bond structure (conjugated double bonds); longisoprenoid structures function asantioxidants by
quenching free radicals; examples include fat-soluble vitamins, carotenoids, and other phytochemicals-lycopene and limonene-as well as steroid hormones ketone bodies three compounds (acetoaceticacid, acetone and B-hydroxybutyric acid) formed by linking two acetyl coenzyme A (acetyl coenzyme A (acetyl coenzyme A) groups lactose the principal sugar in mammalian milk; a
disaccharide composed of glucoseand galactose lecithin (phosphatidylcholine) a phospholipid containing choline; found in the membranes of biologic organisms; is part of lipoproteins, where it transports triglyceride and cholesterol lignin a woody fiber found in the stems and seedsof fruits and vegetablesand
restricts the level of protein synthesis in the body macromutrients macromoleculesin plant and animal structures that can be digested, absorbed, and used by another organism as energy sourcesand as substratesfor synthesis in the body macromutrients macromoleculesin plant and animal structures that can be digested, absorbed, and used by another organism as energy sourcesand as substratesfor synthesis in the body macromutrients macromoleculesin plant and animal structures that can be digested, absorbed, and used by another organism as energy sourcesand as substratesfor synthesis in the body macromutrients macromoleculesin plant and animal structures that can be digested, absorbed, and used by another organism as energy sourcesand as substratesfor synthesis of the carbohydrates,
fats, and proteins required to maintain cell and system integrity maltose (malt sugar); formed from two glucose molecules, is seldom found naturally in the food supply but is formed by hydrolysis of starch poli.nners medium-chaintriglycerides (MCTs) a fat with fatty acid chain lengths of between 6 and 12 carbons, which are short enough to be water
soluble; requires lessbile salt for solubilization, is not reesterified in the enterocyte, and is transported as free fatry acid bound to albumin through the portal system menadione a fat-soluble synthetic form of vitamin K3 menaquinonesvitamin K2 form produced by bacteria and found in animal tissue metallothionein a nonenzymatic, zinc-binding protein
found in intestinal absorbing cells and other tissues of the body, especially the liver microminerals(trace elements) minerals required by humans in amounts of lessthan 100 mglday (i.e., in quantities of a few milligrams or even micrograms) monoglycerols(monoacylglycerides)lipids with only one fatty acid attached to the glycerol molecule
phospholipids and mediator of cellular responses to external stimuli niacin vitamin 83; the general term for the antipellagra vitamers nicotinamide (also niacinamide) and nicotinic acid, which play essential roles as cofactors for numerous en4. 'rnesinvolved in the metabolism of carbohydrates, protein, ano energy night blindness impaired dark
 adaptation causedby loss of visual pigments from vitamin A deficiency; also called nyctalopia nonessentialamino acids amino acids with a carbon skeleton made in the body; if needed, the body can add an amino group to endogenous intermediates to form the nonessential amino acids nonheme iron the form of iron found in plants; less well
absorbedthan heme iron oli gosaccharideslow-molecular-weight polyrners containing 2 to 20 sugar molecules that are small, readily water soluble and often sweet omega-3 fatty acid a fatq acid with the
phospholipids a lipid molecule used to constmct biologic membranes; composed of rwo fatty acids and one of several polar groups linked to glycerol phosphate phytic acid (phytate) a phosphorus-containing compound that is found in the outer husks of cereal grains; binds with minerals and inhibits absorption polysaccharidesa carbohydratepolymer
with more than 10 monosaccharideunits polyunsatulated fatty acids (PUFAs) fatty acids containing at least two double bonds protein digestibility corrected amino acid score (PDCAAS) the official assayfor evaluating protein quality in humans pyridoxine (PN) a B-
complex vitamin (B6) that plays essential roles in the metabolism of amino acids resistant starch encasedin a nondigestible plant seedcoat or modified by cooking or processingcan be resistant retinol a form of vitamin A that is essential to the visual Drocessand cell
differentiation ietinol activity equivalents(RAEs) the measure from the vitamin A activity in foods riboflavin a B-complex vitamin, vitamin 82, that plays essential roles as a cofactor of enzyrnes involved in many cell oxidation-reduction reactions rickets a disease of infants and young animals characterized by impaired mineralization of growing bone
causedby deficiencies of vitamin D, calcium, or phosphorus S-containing amino acids sulfur-containing amino acids (SFAs) fatty acids in which all available carbon binding sites are saturated with hydrogen short-chain fatty acids (SCFAs) fatty
acids with 4 to 6 car bons; the fatty acids acetate (2 carbons), butyrate (4 catbons), and proprionate (3 carbons), which account for 85% of all SCFAs produced in the human colon; are readily absorbed by the intestinal and colonic mucosa scurvy a disease characterized by impaired maturation of connective tissues causedby a vitamin C deficiency
structured lipids a synthetic riglyceride with medium- and long-chain fatty acids esterified to glycerol; used in parenteral nuuition formulas 42 PARTI: NutritionBasics sucrosea disaccharidecomposedof one glucoseunit and one fructoseunit; the major form in which glucoseis transported betweenplant cells; ordinary table sugar tetany musclenvitching
spasms, and (eventually) convulsions caused by low blood levels of calciumor magnesium thiamin a B-complex vitamin (B1) that plays an essential role as a cofactor of enzymesinvolved in dehydrogenase and transketolasereactions thyroxine (Ta) an iodine-containing hormone secreted by the thyroid gland to regulate the rate of cell metabolism tocopherol
biologically active form of the fat-soluble vitamin E transaminationreversibletransfer of an amino goup between an amino acid and a keto acid frans-fatty acids stereoisomersof the naturally occurring to a limited extent
in milk and in meat from ruminants, where microflora convert cis-to trans-fatty acids; presentto a much greaterextentin processed foods triglycerols) lipids consisting of three fatry acid chainsesterified to a glycerol phosphatemolecule triiodothyronine (Tr) an iodine-conaining thyroid hormone with severaltimes more biologic activity than
thyroxine tryptophan an amino acid that servesasthe meabolic precursor of niacin ubiquinonesvitamin-likemetabolitessuchascoenzyrne Q1e that play essentialroles in processes such asrespiratoryenergy metabolismand have antioxidant functions that may sparevitamin E in cells ultratrace elementsmineralsin the body, each of which exists in small
quantities and is typically measured in micrograms urea product of the urea cycle containingtwo nitrogen atoms and carbon dioxide; the chief form in which nitrogenous end productsare excretedin terrestrialanimals vitamer one of multiple forms (all isomersand activeanalogs) of a vitamin vitamin an organic compound, essential in very small amounts
in supporting normal physiologic function, that generallycannotbe biogmthesizedquickly enoughro meet the needsofthe body vitamin K a fat-soluble vitam
eventualulceration of the cornea The major nutrients and their roles in the human body that will be discussed the macronutrients (i.e.. Body composition Nutritional adequary Metabolic parameters Hunger and compliance Effect on weight maintenance From FreedmanM et al: Popular diets: a scientific review, ObesRes9 (suppl 1):1S,2001. Use of an account of the cornea The major nutrients and their roles in the human body that will be discussed are the macronutrients (i.e.. Body composition Nutritional adequary Metabolic parameters Hunger and compliance Effect on weight maintenance From FreedmanM et al: Popular diets: a scientific review, ObesRes9 (suppl 1):1S,2001. Use of an account of the cornea The major nutrients and their roles in the human body that will be discussed as a scientific review, ObesRes9 (suppl 1):1S,2001. Use of an account of the cornea The major nutrients and their roles in the human body that will be discussed as a scientific review, ObesRes9 (suppl 1):1S,2001. Use of an account of the cornea The major nutrients and their roles in the human body that will be discussed as a scientific review, ObesRes9 (suppl 1):1S,2001. Use of an account of the cornea The major nutrients and their roles in the human body that will be discussed as a scientific review, ObesRes9 (suppl 1):1S,2001. Use of an account of the cornea The major nutrients and the cornea The major nutrients and the cornea The major nutrients and the cornea The major nutrients are a scientific review, ObesRes9 (suppl 1):1S,2001. Use of the cornea The major nutrients are a scientific review, ObesRes9 (suppl 1):1S,2001. Use of the cornea The major nutrients are a scientific review, ObesRes9 (suppl 1):1S,2001. Use of the cornea The major nutrients are a scientific review, ObesRes9 (suppl 1):1S,2001. Use of the cornea The major nutrients are a scientific review, ObesRes9 (suppl 1):1S,2001. Use of the cornea The major nutrients are a scientific review, ObesRes9 (suppl 1):1S,2001. Use of the cornea The major nutrients are a scientific review of the c
Eating Inventory euestionnaire can identif persons at risk of unintentional weight loss (Hays et al., 2006). For example, diet soft drinks, which may not contain sugal also are acidic by nature and therefore cause a drop in pH. If PD or continuous renal replacement therapyis used, the amount of glucoseabsorbed can add significantly to the daily
energyintake and should be calculated. Large intakes of carbohydrateand fat will prevent the use of protein for energy production. How would you classi$zAnnie's calcium intake at the initial visit with her physician (who did not take a diet history or estimateher calcium intake)? A randomized clinical trial in which participants were given a structured
behavioral treaffnent program with weekly contact and individualized feedback showed CHAPTER2l I Weight Management 545 Lifestyle Modification Strategies Setting Easy-ToAchieve Short-TermGoals Increasenumber of minutes of walking on weekends Include one fruit at lunch Self-Monitoring Food and activity records Regular weigh in (i.e., daily
or weekly) Stimulus Gontrol Shop when not hungry and with a grocery list Make eating a singular activity (e.g., turn off the television) Gonfronting Barriers Problem-solving steps Planning ahead(e.g., healthful snacftson hand) Stress Management Daily meditation or yoga Progressiverelaxation and visual imagery exercises Social Support Organized
commercial support meetings or classes Family, friends, co-workers as support systems Contractlng Realistic, simple, and achievablehealthfirl goals Useful for short-term change ModifiedfromForqnJP:Needfor lifestyleintervention: howto begin, ArnJ Cardiouav 96:I 1E-14E, 2005. However, DRIs are intended for healthy populations, not for acute or
chronically ill populations. Shinn M, TooheySM: Community contextsof humanwelfare, Annu ReaPsycbol54:427, 2003. So while checking out its huge library is fun on PC, it's even better on your smartphone. When monitoring patients for changes in nuuition test values, one must consider how much change is necessary to give confidence that a
difference is significant. L294 APPENDIXES Selected FoodSources of VitaminK Food Micrograms per Serving +60 364 248 Brussels sprouts, % cup Cauliflower, % cup Caulif
per Serving Food 104 88 68 61 49 25 23 18 10 Beef, 3.5 oz Soybeanoil, 1 Tbsp Letnrce, chopped, cup Asparagus, I cup, cooked Eggs, whole Suawberries, 1 cup Oats, I oz Milk, 8 oz zt4 150 150 t49 IJZ tz) Dietary referenceintakeofvitamin K: 90-120mcg Calcium Any dietary source of calcium counts toward the daily intake, but low-fat milk or
yogurt or fortified substitutes are rhe most efficient and readily available. o v .o z APPENDIXES L227 l. africanu.nt. Weightloss Frequent snacks, nutritionsupplements {ggrithm contentdevelopedbyJohnJ.B. Anderson,PhD, and SanfordC. "I talked to you about a month ago to see how you were doing with your carbohydrate
levels for each meal and insulin dosage." . Investigatethe quality of the manufacturer whose product is being considered. At a minimum, it is important to know that the retail suppliers carry only manufacturer whose product is being considered. At a minimum, it is important to know that the health care professional recommending a product is knowledgeable about the quality of dietary
supplements. One of the questionsto ask is how herbs are grown, selected, stored, and processed to ensure absence of microbial contamination, proper identification, and potenry. Variability Genetic Certainly it's far more challenging to pin down the details of such disorders when multiple genes and environmental factors are involved. Von RoennJH:
Pharmaceurical management of nutrition impact symptoms associated with cancer. However, in the event of borderline values, the possible influence differences between the population of which the patient is a member and the reference population may be
important in hepaticlipid or glucosemetabolism. Acetate (2C) is produced in the greatest quantities from undigested carbondioxide by peripheral LJ: Lifestyle modification as a means to prevent and treat high blood
presstre, J Am SocNEhml 14:S99, 2003. This distinction is important for effective therapy because different types of tumors respond to different types of tumors respond to different types of tumors respond to different types. SeppoL et al: A fermentedmilk high in bioactive peptideshasa blood pressure-lowering effect in hypertensive*bjeccs, Am J ClinNutr77:J26,2003. Micronurient
considerations(seeTables20-2,20-3, and 20-4) 9. Facilitateinternal motivation for Ghange 49f 19 i Intervention: Gounselors must keep an open mind and consider the social milieu in which the client lives. Several combinations of CAPD and CCPD are possible and will be
referred to as PD. Metabolic aberrations that occur during starvation cause a host of negative effects, including bradycardia, hypotension, and death. Why changefails . carbohydrates. Astronauts living in conditions of zero gravity for only a few days experience scape abnormalities, depression, and death. Why changefails . carbohydrates. Astronauts living in conditions of zero gravity for only a few days experience scape abnormalities, depression, and death.
much bone loss, especially in the lower extremities, that appropriate exercise is a feature of their daily routines. Men reduce weight faster than women of similar size because of their higher LBM and RIIR. Risk assessmententails hazard identification, chaiacterization and exposure; risk management covers risk evaluation, option assessmentand
implementation, and monitoring and review of progress. You might say, "The ruler will help us see where you are in terms of changing your diet. Seea/soNeurologic disorders lesions of, 1069-1072 localizing signs of, 1069-1072 structure and function of, nutritional aspects of, 1104-1105 wiring it is not progress. You might say, "The ruler will help us see where you are in terms of changing your diet. Seea/soNeurologic disorders lesions of, 1069-1072 localizing signs of, 1069-1072 localizing si
syndrome), definition, 563 net protein utilization O{PtD, 63 neural crest defects definition, 160 hlpervitaminosis A and, 174 neural tube defects (NTDs) definition, 160 maternal obesity and, 165-166 spina bifida as, ll82-1185. Besides being in bone, receptors for vitamin D have been identified in the gastrointestinal tract, brain, breast, nerves, and
many other tissues. be within 2 feet of whomeverthey are communicating with so they can observe their eyes. Blacksare likely to be offended if a person tries to increase the family? Osmolality stated as the the number of milliosmoles of solute
(particles)per kilogram of solvent, and is usually not used to define the concentration of a formula. FranzM. S, RDL, D & Nutrition Conceptsby Franz, Inc. The bile acids produced during the digestive processnormally are resorbed in the proximal gastrointestinal tract. If symptomspersist despite these strategies, further evaluation and diet
therapy should be tailored to the underlying cause. Further, it must meet the significant scientific agreement standard and requires prenotification of the Food and Drug Administration (FDA). This illustrates the importance of thrombosis in clinical events. A counselor's urges may lead in the direction of defending one's own ideas, but the result is
frequendy defensivenesson the part of the client. al., 2002). C-reactive protein inhibits formation of nitric oxide by endothelial cells, which in turn may promote vasoconstriction, leukocyte adherence, platelet activation, and thrombosis (Bautistaet al., 2001). Nutrition Diagnosis 1: Chewing difficulty related to avoidance of many foods and preference for
soft fruits as evidencedby mouth pain Nutrition Diagnosis l; Inadequateprotein intake related to fruit-based diet as evidencedbyintake ofless than 50% of estimated requirements 1. The high iron stores come from eating excessiveiron supplements or from receiving frequent blood uansfusions, not from increased iron intake in the diet. Loss of appetite,
suength, and weight frequendy precede other s).rrnptoms.In some casesachylia gastrica (absenceof hydrochloric acid and pepsin) or achlorhydria may exist for years before the onset of gastric carcinoma. Victimization I Perfectionism r Avoidance . Calculation: DER :;Ti ff]/o:#i:255ex 1le DER : 3045 kcaVday *Norr: The DER may be further modified as
a result of infection, fever, or other srystemicconditions such as body composition, cystic fibrosis-related diabetesmellitus, or pregnancy. Careful and frequent reassessment must be made on an anticipatory basis. Review information from the American Red Cross (www.redcross.org) and the Department of Home
Land Security (www.dhs.gov.org) and propose an emergencyfood package for your family that includes food and water and supplies, including menus for 7 days. Check medications and treatrnentsto determine if new choicesare in order. Hearttransplant Developedby L. These tubes are used for early postoperative feeding. The large, buoyant VLDL
particle is believed to be nonatherogenic. These infections often are compounded by a compromised immune response, preexisting malnutrition, and gastrointestinal consequences of HIV infection (see Chapter 38). of EpsteinCD et al. Comparisonof methodsof measurements oxygenconsumptionin mechanically ventilated patients with multiple
trauma: the Fick methodversusindirect calorimetry Crit CareMed 28:1363,2000. o I L ::a vlx \o I -l E6t ra(fi P \ si s\I q I q) d - d U!. Although most patients maintain normal prothrombin times without supplementation, decreasedbiologic activity of vitamin K has been reported. SseCentral parenteral nutrition cramps, leg, in pregnancy, 182-183
cranberry supplemental, efficary, reviews, 478t cranial nerves, functions, 1072t CR (calorie restriction), longevity and,23b C-reactive protein (CRP) definition,833 high-sensitivity (hs-CRP), 420 as marker of inflammation, 425 cardiovascular diseaserisk and, 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and, 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and, 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and, 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and, 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and, 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and, 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and, 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and 425-426, 426t in assessmentfor protein-calorie malnutrition, 420 in cardiovascular diseaserisk and 425-426, 426t in assessmentfor protein-calorie malnutrition and 425-426, 426t in assessmentfor protein-
assessment,848-849 creatine as muscle-building supplement, 607 creatine phosphate (CP) definition, 42 I in assessmentfor protein-calorie malnutrition, 420-421 semm, reference range/significance, 41 5t creatinism, 129 definition, 40 neonatal, maternal iodine
deficiency causing, t 76 - 1 7 7 cri du chat syndrome, 372 Crixivan (indinavir sulfate), nutritional complications, 1004t Crohn's disease, 689-69 5. See aholodine manganese as, 131-132 molybdenum as, 133-134. In this instance ileus is common for 7 to 10 days after the insult, and parenteral nutrition may be necessary. Care of loneterm catheters
Fanconi's syndrmneis characterized, by an inability to resorb the proper amount of glucose, amino acids, phosphate, and bicarbonate in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule, thus causing excretion of these substances in the proximal tubule.
knowledge of gene variants into dietary recommendations for populations and individuals will increasingly play a role in nutrition counseling and poliry making. Uremiais a clinical slmdromeof malaise, weakness, nauseaand vomiting, musclecrampsand itching, musclecrampsand
unacceptablelevel of nitrogenous wastesin the body. The manifestations are somewhatnons pecificand vary by patient. Matzo, (i.e., unleavened bread) is eaten, and all cake and baked products are made of flour from ground-up matzo or potato starch and leavened bread) is eaten, and all cake and baked products with differing amino
acid sequences(isoforms) and often different functions. I feel tlat you have done extremely well, given your circumstances." o "MaDy people I talk with expressthe same problems. CharuhasPM: Medical nutrition therapyin bone marrow transplantation. In Elliott L et al editors: Theclinicalguideto oncolognutritiln, ed 2, Chicago, 2006, American Dietetic
Association. 5 5 + 53 52 52 50 43 42 +1 38 36.5 31 JI 30 25.5 basedon the recommendeddietary allowance. They were developed nutrition permits the proper growth and development the: respiratory anatomy; supporting structures of the skeletonand
muscles; and relatednervous, circulatory, and immunologic systems. Overall a person's nutritional well-being, aswell as the proper metabolism of healthy lungs and other associated body structures and processes throughout life (Andreoli et al.
2004). About I0o/o of calories per day from fat emulsions provide the 2"/o to 4o/o of calories from linoleic acid required to prevent essential fatty acid deficiency. fu described in Chapter l, dietary fat depresses gastric secretions, slows gastric emptying, and stimulates biliary and pancreatic flow, thereby facilitating the digestive process. If a secondary
complication is present or if BMI is at the 95th percentile or aboveweight loss (about I lb per month) is advised. Antibiotics may interfere with this normal production. StewartCL et al: Comparison ftwo systems of measuring energy expenditure, JPEN J ParenterEnteralNutr 29(3): 212,2005. SeeHealth Insurance Portability and Accountability Act hip
fracture in age-relatedosteoporosis, 627 posrmenopausalrisk, 62 1b histamine, in foods, reacaons, 7 46t histidine, requirements, by age group, 63t HIV-associated nephropathy, definition, 991 HfV disease, 991-1020. SullivanSSet al: Adolescentgirls in Maine are risk for viamin D deficiency, J Am Diet, 4ssoc105:97 , 2005. CanadaT: Clinical dilemmain
cancer: is tumor growth during Nurr Clin Pract17:246,2002. The incidence (new cases) of HF has risen over the last 20 years because of an aging population, the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI, and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and the increasednumber of people being savedfrom a MI and t
patients for whom the mixing of food and pancreaticjuices is inadequate. Those at greatest risk of deficiency who may benefit from prescription of vitamin and mineral supplements include patients who consume obviously poor diets or extreme calorierestricted diets, strict vegetarians, older adults, pregnant or lactating women, those taking medication
known to alter micronutrient metabolism (see Chapter 16), patients in poor metabolic control (glycosuria), and patients in critical care environments. Nutrition professionals play an important role in the therapy of such individuals because they typically have oral-motor problems that affect their nutritional status and cause growth problems in early
life. The unlocking of the genome and the logical sequencing of key targets will allow the creation of novel inhibitory and bactericidal products against which no microbe has yet had the chance to become resistant (Fox and Wang, 2002). Nutrition professionals will gain a deeper understanding of the underlying genetic and biochemical basis for
disordersand will be able to apply new tools that will focuson preventing disease through early detectionand intervention. Related Diseases and Syndromes Hypertension is a risk factor for CHD, stroke, and heart failure. This should allow the normal sensation of hunger to be generated and provide freedom from tube feeding during the
day. Per serving, most meal replacements include 0 to 5 g of fiber; 10 to 14 g of protein; various amounts of carbohydrate, depending on whether they are artificially sweetened; 0 to 10 g of fat: and 25"/" to 30Y" of RDfu for vitamins and minerals. Usually shakes are milk or soy based and may be high in calcium. They range from 150 to 250 kcaVS oz. Obese
children are often the targets of discrimination. asp Cultural Competency withAdolescents I /pub/upload/mm/39/ culturallyeffective.pdf Institute for LifeCoach Training http://www.lifecoachtrainin g.com/ I nt e r n a t i o n C a lo a ch i nFge d e ra ti o n on.org/ eweb/ J o u r n aol f C o u nse l i nPgsych o l o g y htq://www.apa.org/journ als/cott/ 0 f f i c
venoocclusivedisease, hepatic dysfunction occurs. Individuals with hepatic or portal vein thrombosesshould be evaluated for a myeloproliferative disorder. Parasitic, bacterial, fungal, and granulomatous liver diseases occur. Merritt R, editor: The ASPEN natritiln sapplrt practice manual, ed 2, Silver Spring, Md, 2005, American Society for Parenteral vein thrombosesshould be evaluated for a myeloproliferative disorder. Parasitic, bacterial, fungal, and granulomatous liver diseases also occur. Merritt R, editor: The ASPEN natritiln sapplrt practice manual, ed 2, Silver Spring, Md, 2005, American Society for Parenteral vein thromboses and parameters are not of the same and pa
and Enteral Nutrition. To meet their individual needs, patients must modifiz general guidelines to reduce insulin doses before (or after) or ingest carbohydrates after (or before) exercise. Calcium (1000 mglday) and vitamin D (800 to 1000 units/day) are typically recommended as supplements for patients being treated with one of the bone drugs,
h e ra p y f o r I n f a n t sa n dC h i l d re n Formuln. In North America and Europe this nutritional disorder is the most commonly encountered manifestation acquired from thiamin deficiency; it develops after severe or repeated attacks of postalcoholic delirium tremens. Calculating fat as a percentage of calories, although not as popular as it used to
be, is effective in promoting a low energyintake. As the enteral rate is increased by 25 to 30 ml/hr increments every I to 24 hours, the parenteral prescription is reduced accordingly. Sodium requirements for infants, children, and aduls are increased in CF because of increased losses in sweat. When sodium intake is inadequate, lethargy, vomiting, and
dehydration may occur. Sixty percent of the \ILDL particle is triglyceride. FIGURE 36-2 Locat: on of a transplantedkidney. Fry bread (fried dough) is a central part of American Indian cuisine and is eaten with foods such as stews, soups, and bean dishes. Fried foods are generally prepared with lard. The type of chili and amount of capsaicinconsumed
seemto makethe difference(Milke et a1.,2006). The %DVlisted on the Nutrition Facts panel of food labels states the percentage of the DV provided in one seming Mtamin K. When the regulatory mechanisms falter, hypertension
develops. The presentation of symptoms varies but may include reflux of gastric secredons, heartburn with episodes of substernal pain, belching, and esophageal spasm. Zitterman A et al: Markers of bone metabolismin congestive heart failure, Clin CbimActa 366:27,2006. Junien C, Gallou C: Cancernutrigenomics, WorldRn Nutr Diet 93:210,2Q04. "Is
this feasible?" r "How do you seethings turning out if you makethese changes?" This is the stagein which goal setting is extremelyimportant. Presently governmental and industry entities are working to develop high-quality manufacturing guidelines (Good Manufacturing Practices tGMPsl) for all dietary supplements, including botanical products. Mra
diseases, including herpes simplex and cytomegalovirus, result in painful ulcerations of the mucosa. Lipoprotein High-Density High-densitylipoproteins, which accounts for their metabolicrole as a reservoir of the apolipoproteins that direct lipid metabolism. Apo A-I, the main
apolipoprotein in HDL, is an antiinflammatory' antioxidant protein that also helps to remove cholesterolfrom the arterial wall to the liver (Choi et al., 2006; Barter and Rye, 2006). Numerous groups are recommending that apo A-I or the ratio of apo B to apoA-I be added to determinerisk and tailor treatment (Marcovina and Packard, 2006; Walldius and Jun
gner, 2006; Barter and Rye, 2006). The lower the ratio, the lower the ratio excre- The syndromeis also characterized by hIpenension and tion. Other routine measurements such as serum calcium and phosphate
were normal. A unique structure, differences in permeability between the various segments, and the response to hormonal control allow the tubule to produce a final urine that can vary widely in concentration of sodium, potassium, and other electrolltes; osmolality; pH; and volume. An appropriate range is 10% on either side of this weight. Many
measureshelp to manage reflux (Box 26-l), but probably the most effective is to avoid eating several hours before retiring. Eventually the pouch expands to accommodate to 5 oz at a time. Energy needscan hour period) only reduces protein breakdown by 50"/". Remember that qualified health claims must be petitioned for by a body outside the FDA
such as the supplement manufacturer; thus, although evidence may exist for use of select dietary supplements for select health s)rynptoms, unless a request is formally made to FDA, such a claim will not be developed. In men, about 3% of body fat is considered essential. Last, dietary galactoseis producedfrom lactose(milk sugar) by hydrolysisduring
the digestive process. Some infants are born witl an inability to metabolized into the glycolytic pathway but blryassesa major control enz), mein the pathway (Figure 3-
2). These disorders result from the gain or loss of all or a significant portion of a chromosome. Ridker PM: High-sensiriviryC-reacriveprorein, inflammation, and cardiovascular risk: from conceptto clinical pracriceto clinical
variety offoods and calcium-fortified fuices contain calcium and can help children, teens, and adults get sufficient levels of calcium in their diets. Lessonslearnedfrom dietarymanagement for yetic fibrosis, ProcNutr Soc62t793,2003. For the child who is obese after 6 years of age, the probability of obesity in adulthood is significantly greater if either the
mother or the father is obese. Towel and gloves Counesy Gail Cresci, MS, RD, CNSD, Assistant Professor Surgery CoStethoscope Director Surgical Nurition Service, Medical College of Georgia, Augusta, Ga. products, whether for individual or institutional use, is increasingly complex. Nor, and withdrawal of any provoking agents. In contrast to
syndromes caused by extra chromosomes, some syndromes are caused by the loss of a portion of a chromosome (a partial deletion); examples include Genomics 373 Nutritional 13 i Assessment: CHAPTER Williams s1'ndrome (chromosome 7 deletion), and some types of Prader-Williams s1'ndrome (chromosome 7 deletion).
Angelman syndromes (chromosome 15 deletions). 8 \times 4 = (y + p) + PA \times (10 \times W = 16 + p) + PA \times 
30.8xAge(yr)+PAx(l0xWeight[kg] where PA: 1.6 (Low active) PA: 1.3 if PAL is estimated to be > 1.4 (Sedentary) PA: 1.5 if PAL is estimated to be > 1.9 < 2.5 (V'eryactive) EERfor Men 19 Years and Older
(BM118.525 \text{ ks;/m2l EER: TEE EER: }662 -9.53 \text{ x Ag}^{"}(yr) + PA \text{ x }(15.91 \text{ x Weight [kg]} + 539.6 \text{ x Height [m]}) where PA: 1.48 if PAL is estimated to be = 1.6 < 1.9 (Active) PA: 1.48 if PAL is estimated to be = 1.6 < 1.9 (Active) PA: 1.48 if PAL is estimated to be = 1.6 < 1.9 (Active) PA: 1.48 if PAL is estimated to be = 1.6 < 1.9 (Active) PA: 1.8 if PAL is estimated to be = 1.6 < 1.9 (Active) PA: 1.8 if PAL is estimated to be = 1.8 < 1.9 (Active) PA: 1.8 if PAL is estimated to be = 1.8 < 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA: 1.9 if PAL is estimated to be = 1.9 (Active) PA:
1.9 < 2.5 (Very active) From Insrirute of Medicine, Food and Nutrition Board: Dieury referenceintakesfor energt, carbohydrate, fibea fat, fatty acids, cholesterol, protein, and amino acids, Washington, DC, 2002, The Nanonal Academies Press, vww.nap.edu. Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen et al.: Skeletalmusclemassand distribution in 468 men andwomenaged 18-88 yr, Janssen
ApplPbysiolSg(1):81,2000. cdc.govlneedphp/dnpa National Academy Press-Publisher of Institute of Medicine DRIsfor Energy www.nal.usda.gov/ fnic/ foodcomp/ National Institutes of Health-Bioelectrical Impedance Analysis . SoubaW' Wilmore D: Diet and nutrition in the case of the patient with surgery, traumaand sepsis. In ShilsME et al, vol 2.
gov/guidelines/asthma National Cancer Institute(LungCancer] w\r'w. A waffie or pancake is about the size of a compact disc (CD) and about 7+-inch thick. Bioterrorism The threatof bioterrorism, the deliberateuseof microorganismsor toxinsfrom living organismsto induced eathor disease, and the nation's food and watersupplies have made food
biosecurity or precautions to minimize rising an issue food supply: tularemia, brucellosis, Clostridium botulinunt toxin, epsilon toxin of Clostridium perfringens, Salmonella, E.
JeelJot elgeun luonuerer ro ssol snlog aSersI? Jo ara es. She is presently 5 ft 6 in. It is essential that users and their modes of action and guality of manufacture to ensure their safe and effective use, particularly with reference to the potential
interactions between dietary supplements and prescription or over-the-counter (OTC) medications (Figure 18-5). If the complications are found to causeserious morbidity and require rapid weight loss, referral to a pediatric obesity specialistis recommended. Otherwise parent and child readiness make changes should be evaluated and eating and
activity pafterns carefilly assessed. If conflicting ideas arise, the counselor can use the sffateg'y, "on the one hand you want to change but love those old eating pafferns". 363 Ruth DeBusk, PhD, RD KEY TERMS alleles variants of a gene; refers to the different variations in DNA sequence that a gene may have within a population autosomal-dominant
refers to inheritance resulting when an allele on an autosome gives rise to a phenogous autosome gives rise to a phenotype only
when two copies of that allele are present; when only a single copy is present, the phenotype of the dominant normal allele masks that of the recessivemutant allele autosome one of rhe 22 pairs of nonsex (X or Y) chromoSOMCS bioactive food components nutrients and other food components that convey information to the genetic material and effect
a change in gene expression, such as by serving as ligands for signal uansduction or for transcription control of gene expressron chromosomes subunits of DNA that are composed DNA and protein; a means of packaging the large amount of DNA into the nucleus of a cell; humans have 23 pairs of chromosomes, and eachgene has an addressat a
discretelocation on a specific chromosome codon a set of three nucleotides in deoxyribonucleic acid (DNA) arranged side-by-side; specifies an amino acid in the gene's protein product or a signal to start or stop transcription conditionally essential referring to a nutrient that is required to be present in the diet of individuals who, because of their
genetic makeup, need it in higher amounts for optimal body function rather than other individuals who, because of genetic makeup, are able to internally produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internally produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internally produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internally produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internally produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internally produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internally produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internally produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup, are able to internal produce enough of the nutrient 364 deletion loss of genetic makeup are able to internal produce enough of the nutrient are able to internal produce enough of the nutrient are able to inter
and most organisms; consists of two strands of nucleotides that encodes the information needed to create and operate a living organism dominant description of genes with characteristics that are expressed when only a single copy of allele is present epigenetics
heritable changes to tlle genome that do not alter the DNA sequenceitself ELSI ethical, legal, and social implications/issues of genetic research; initiative of the Human Genome Project to ensure that genetic information is used positively and fairly exons the sequenceof DNA nucleotides within a gene that codes for the amino acid sequence of the
gene's protein product genes a segment of DNA tlat encodesthe instructions for synthesizing a protein genetic engineering the alteration of genetic material, typically by recombinant DNA technology genetics the scienceof how traits are inherited gene
variants changes in the rypical sequence of nucleotides at a particular locus; although technically a mutation, terminology is evolving such that "mutation" connotes a change that in itself is not harmful but has a consequence of nucleotides at a particular locus; although technically a mutation, terminology is evolving such that "mutation" connotes a change that in itself is not harmful but has a consequence of nucleotides at a particular locus; although technically a mutation, terminology is evolving such that "mutation" connotes a change that in itself is not harmful but has a consequence of nucleotides at a particular locus; although technically a mutation is such that "mutation" connotes a change that in itself is not harmful but has a consequence of nucleotides at a particular locus; although technically a mutation is such that "mutation" connotes a change that in itself is not harmful but has a consequence of nucleotides at a particular locus; although technically a mutation is such that "mutation" connotes a change that in itself is not harmful but has a consequence of nucleotides at a particular locus; although technically a mutation is such that "mutation" connotes a change that in itself is not harmful but has a consequence of nucleotides at a particular locus; although technically a mutation is such as a consequence of nucleotides at a particular locus; although technically a mutation is such as a consequence of nucleotides at a particular locus; although technically a mutation is such as a consequence of nucleotides at a particular locus; although technically a mutation is such as a consequence of nucleotides at a particular locus; although technically a mutation is such as a consequence of nucleotides at a particular locus; although technically a mutation is such as a consequence of nucleotides at a particular locus; although technically a mutation is such as a consequence of nucleotides at a particular locus; although technically a mutation is such as a consequence of nucleotides at a particular 
nutrition and other lifestyle choices are typically referred to as "gene variants" rather than "mutations" genomic imprinting processby which the phenotype is influenced by whether an allele is inherited from the mother or the father;
technically: epigenetic modification of a prrental allele (or the chromosome on which it resides) in the gamete or zygote, resulting in differential expression of the two alleles in the somatic cells of the offspring genomics a broader concept of genetics that includes not only genes, their proteins, and associations with diseases, but also the interaction
among susceptibility factors and environmental factors and the potential for multiple genes, proteins, and environmental factors to influence health and well-being genetic locus; such an individual is called a heterozygote ("carrier"); in classical genetics a
heterozygote has one normaVcommon allele and one variant/mutant allele; in nutrigenomics terminology, a heterozygous individual may have the more common allele and a variant allele or two different variant alleles homozygote; in classicalgenetics a
homozygote has either two normal alleles or two mutant alleles or two mutant alleles or two copies of the same variant alleles or two mutant alleles or two normal collaborative foff to completely identify the sequence of nucleotides in the DNA of human beings and numerous
other organisms, associate this sequences between two genes; most of DNA in humans, and function unknown introns DNAsequences between two genes; most of DNA in humans, and function unknown introns DNAsequences between two genes; most of DNA and then removed before the
translation of mRNA into its encoded protein karyotype a visual display of chromosomes at the end ligands molecules or cofactors that bind to another chemical entity to form a larger complex, such as small molecules binding to a receptot a
transcription factor, or the catalytic site of an enz;;urr,e; results in a change of activity, either activation or inhibition maternal inheritance parrern of a single gene trait; named after Gregor Mendel, who first described the rules of
inheritance for single gene traits messengerRNA (mRNA) a classof ribonucleic acid (RNA) in which the information in double-stranded DNA is converted into a single-stranded RNA molecule composed of nucleotides containing the sugar ribose, the mineral phosphorus, and one of four nitrogen-containing bases (adenrne, cltoslne, guanrne or uracil);
serves as an intermediary between DNA and the protein it encodes and directs the amino acid sequenceof the protein being synthesized metabolismcanbe usedasbiomarkersfor diagnosticand therapeutic purposes; usefirl in nuritional genomics as a meansof monitoring efficacyof
therapeuticinterventions mitochondrialinheritancethe inheritancepatternof a trait carried on mitochondrial DNA, which is typically passed from mother to child mutations changes in the DNA sequence; if the changealters the function of the protein
significantly, a disease can result nucleotide the building block of DNA and RNA; consists of the sugarribose, the mineral phosphorus, and a nitrogeneous adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, or th1'rnine; in RNA it is adenine, cytosine, granine, granine,
varians on their metabolicand phpiologic function (i.e., on suchparametersaslevel of nutritionalgenomics of the nutritionalgenomics the study of the consequences influence function (i.e., on suchparameters and other bioactive food components on the
expression of the genetic material: also called nutrigenomics pedigree a visual method of tracing the inheritance of traits through multiple generations of a family penetrance the proportion of a population that has a disthe associated phenogenotype and expresses ease-causing type; when that proportion is less than 100%, the gene is said to
have reduced penetrance proliferator-activated peroxisome receptors (PPARS) antioxidative stress and inflammation; may be usefulin reducing efficacyand in key drug-metabolizing en'zymes safety; the genetic uniqueness of each individual
confersdifferent drug-metabolizing abilities; thus the samedosage of a drug may be toxic for one person, effective for another, and ineffective for another phenotype the measurable expression of a gene, such as a physical trait or the level of a protein in a blood sample polymorphism refers to one of multiple variations of a gene sequence post-
transcriptional processing involves preparing the mRNA molecule for translation into protein, which involves removal of introns, capping of the 5-prime end, and the addition of a poly-adenosine "tail" to the 3-prime end of the mRNA g some proteins are slmthesized post-translation and processing (or in their precursor "pro" form) and must have chemical (e.g.,
or removed(e.g., one carbohydrates) moieties added or more amino acids) before becoming an active molecule promoter a specific DNA sequence within a gene, just before the coding region, to which RNA polymerase canbind and transcribethe DNA into mRN and important region of a genein terms of regulating gene expression Continued 366 PART3 I
NutritionGareProcess proteins moleculescomposed amino acids; carry out the work of the living cell by serving as enzymes, receptors, transporters, hormones, antibodies, or communicators proteomics the study of the stmcture and function of proteins in living organisms recessived escription of genesthat are not expressed when only a single copy of an
allele is present and that only express their phenotypewhen two copies are present recombinant DNA made from rwo different sources by cutting out a segment by cutt
end of a gene (the regulatory region) to which transcription and control the expression of that gene (restriction enzymes) bacterial restriction enzymes as particular DNA at that location; bacteria contain thousands of these en 4tmes, and each has a particular DNA
recognition site; useful as "molecular scissors" for precisely excising a sequence of DNA that can then be transferred into the DNA of another organism; some single nucleotide polymorphisms used for diagnostic purposes involve changes within restrictionsites sexchromosomes in humans, the X and Y chromosomes sex-linked traits carried in the X or Y
chromosomein humans, ranging from a changein a single nucleotide the gain or lossof an entire chromosome (SNP) a type of structural single nucleotide; when such a variant occursin greater than I % of a population, it is called a single nucleotide to the basecomponent of a single nucleotide to the gain or lossof an entire chromosome (SNP) a type of structural single nucleotide to the basecomponent of a single nucleotide to the gain or lossof an entire chromosome (SNP) a type of structural single nucleotide to the basecomponent of a single nucleotide to the basecomponent of a single nucleotide to the gain or lossof an entire chromosome (SNP) a type of structural single nucleotide to the basecomponent of a single nucleo
polymorphism transcription the processof transferringinformation encoded in DNA to RN,\ mRNA servesas an intermediary between DNA and the amino acid sequence of the protein to be synthesized transcription factors proteins that bind to response elements witlin the 5-prime end of a gene to increase or decrease transcription for mRNS
bioactivecomponents in food can bind to transcriptionfactors and thereby influence gene expression transferring information the body X-linkeddominantan inheritance parternin which an allele carriedon the X chromosomegives rise
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to the variant phenotypein womenwhen only one copy of the alleleis present (this terrninology is not relevant to malessince they have only a singlecopy of the X chromosome) X-linked recessivean inheritancepattern in which an allele are

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present; in malesonly a single copy of the alleleis needed to give rise to the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will typically express the phenotype if their X chromosomeand will be a supplied to the phenotype if their X chromosomeand will be a supplied to the phenotype if their X chromosomeand will be a supplied to the phenotype if their X chromosomeand will be a supplied to the phenotype if the x chromosomeand will be a supplied to the x ch
 chromosome; expressed only in males Nutrition professionals have long been intrigued and more than a little p:uzzled by the fact that one person can be lean even though their genetic counterparts in the American southwest are obese and have a
high incidence of rype 2 diabetes, and that a low-fat diet can reduce blood lipid levels in many people but not in everyone. GOLD (Global Initiative for Chronic Obstructive Lung Disease): Global strateg for the diagnosis, Tnanogsntent, and prnmtion of chrunie obstntaiue Fulmanary disease, Executiae sammory, updated 2005, from www.goldcopd.org,
 accessedFebruary 5,2006. How would you counselEllen? Orteopros KarlssonM et al: The evidencethat exerciseduring growth or adulthood reducesthe risk of fragility fracnrresis wetk, Best PraaieeResClin Meumatol15:429,2001. All sources of fluid being given to, a patienr receiving enteral nutrition, including feeding tube flushes, medications, and
intravenous fluids, should be considered when determining and calculating a patient's intake. Fluoride can be used topically and systemically. M et al: Decreasedgrowth hormone levelsin the Jeevanandam catabolicphaseofsevereinjury, Surgerylll:495,1992. CHAPTER3g 1041 NutritionTherapyforMetabolicstress: Sepsis, Trauma, Burns, and Surge f
wtedical Ireton-JonesC, JonesJD: Improved equationsfor predicting energy expenditure in patients: the Ireton-Jonesequations, Nutr Clin Pract17:29,2002. This tends to be constant and steadily progressive. Thereafter indirect calorimetry is most useful, exceptfor some patients who are mechanically ventilated because their ventilation procedures may
negate the results. Silver MA: Dietary researchin hean farlve, J Arn Coll Canliol 42:1224,2003. NN 'l o!, Ch q o q ra APPENDIXES 1241 -, J I -. Gaultier C et al: Lang dneloprnflt, New York, 1999, Oxford University Press. Howeveq since the pulmonary system is exposed to the environment, other inhaledpollutans may initiate the malignant condition. No exposed to the environment, other inhaledpollutans may initiate the malignant condition.
utrition D iag n osis: Overweight/obesityin Jared related to possiblegenetic susceptibility, overeating with snacksand consumption of large means that inappropriate counseling strategies set the stage for failure. Glimn CC et al:
Predictiveversus measured energy expendirure using limits-or-agreement analysis hospitalized, obese patients, PEN J Parenter Enteral Nut 23:147,1999. What other types of information will be needed to help Mrs. Animals allowed to be eaten (clean) are quadrupeds that have cloven hooves and chew cud, specifically catde, sheep, go?ts, and deer.
Megestrol acetate . G o m m oD n ietarP y a t t e r n sH: i s p a n iCc u l t u r e s JewishFoodCustoms, Dietary Laws, and Holidays Hispanics are the most rapidly growing ethnic group in the United States, and Mexican-Americans are the largest subgroup of Hispanics. Nutrition should be provided "as tolerated or as desired" along with emotional
support and awarenessof and respect for individual needs and wishes. Although some srudies suggesr clinical efficacy (Ernst, 2000), others do not (Manusirivithaya et a7., 2004; Eberhart et al, 2003). lipids, protein, and alcohol) and the micronutrients (i.e., vitamins and minerals). In a few instances nutrition support may be warranted but physically
impossible to implement within the overall patient care plan. National CholesterolEducation Program Q.[CEP):Summaryof the Third Report of the National CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, Evaluation, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection, and Tieatrnentof High Blood CholesterolEducation Program Expen Panelon Detection Program Expen Panelon Panelon Program Expen Panelon Pane
in place of estrogens for the prevention and treatment and osteoporosis. These cases presented a previously unknown disorder. 6, Glycogenesisusesa glycogen. Food and Nutrition Board, National Research Council, NAS: dietaty allowances, ed 10,
Washington, DC, 1989, Recommended National Academies Press. Neer R-U[et al' Effect of parathyroidhormone (l-34) on fractures women with and bone mineral densityin postrnenopausal N FnglJ Med 344:1434,2001. See also Folate ptyalin, in digestion, 6t, 9 ptylinism, definition, 161 ptylinism gravidarum, 182 puberty definition, 2,[,6
physiologicchangesin, 246-247,247t, 248f public health assurance, definition, 310 Puerto Ricandietarypatterns,354t PUFfu. Physical activities activities activities. Classification of energy costs of human physical activities, Med
 SciSportsErerc25:71,1993. Durnin JVGA: Energy requirements:generalprinciples, Eur J Clin Nutr 50(suppll):2,1996. Decreased bicarbonate secretion can further reduce digestive enzyme activity. Prader-Willi and Angelman's syndromes apically have abnormal feeding behaviors. These single- or multiple-lumen catheters are placed in the cephalic.
subclavian, or internal jugular veins and fed into the superior vena cava. popularity of organic and natural foods conrinuesto Jhe I increasewith the ero/,!'th of ethical consumerism. 988 PART5 I MedicalNutritionTherapy Fairey AS et al: Physical exercise and immune system function in cancer survivors: a comprehensive review and future directions.
Canrcr94:539,2002. Data from Maternal Child Health Bureau: Newborn screening: toward a uniform screening: toward a uniform screening: toward a uniform screening toward a uniform scree
betweengalactose(C-1) and glucose(C-4), mahasecleaves the cr bond betweenglucose(C-1) and glucose(C-3), mahasecleaves the entrance port. Thomas S: Nutrition implications of
surgicaloncology. In Elliott L et al, editors: The clinical guideto oncolngnutritiln, ed2, Chicago, 2006, American Dietetic Association. Regurgitation occurs in about half of infans in the first year. On the other hand, a chronic low protein intake contributes to low levels of serum albumin, which lowers both
 serum IGF-I and serum calcium, a situation in which fracture patients may be especially vulnerable. 2 NJ 241.7 D E 234.9 MD 283.7 DC 1, 9 6 0. Acceleration of bone loss coincides with the menopause, either natural or surgical, at which time the ovaries stop producing estrogen. McClave SA et al: North American Summit on Aspiration in the
Critically Ill Patient consensusstaremenr, TPEN J Parenter Enteral Nutr 26:80. The dietary protein level for patients has changed over time. fu dentition or intuition? See alsoEnteral nutfltton facts label, 344, 347, 347f definition,337 for cancer
survivors, recommendations, 968, 970t history in nutrition assessment, 195-398 imbalance, 384-387 in cancer etiology, 962b in cancer prevention, recommendations, 961 parenteral, 5 16, 5 18-522. Krummel, 5 16, 5 18-522. Krummel, DR, DEndowedProfessor Nutritional
Sciences University of Cincinnati Cincinnati
SupportTeam Mt. CarmelWest Hospital Columbus, Ohio LauraE. These should be considered for patients whose swallowing function is inadequate to ensure their nutritional health (see Chapter 20). They also -ini-ir. Each holiday has certain associated food delicacies. A food providing 5% of the DV or less is a low source, whereas a food that provides
100/o to 190/o of the DV is a good source. In infants, thickened feedings have been used for a number of years, and evidence suggests that thickening may be helpful in the frequency of postprandial emesis and reflux (Hassel, 2004; Vanderhoof et al., 2003). Tell them that as part of your studies you need to find our more about the
application processand would like to complete an application for your casesrudy family. Preventnutrientdeficiencies . Thesefactors are presented in Thble 33-3 and include losing weight if overweight; limiting alcoholintake; adopting a dietary pattern that emphasizes fruits, vegetables, and low-fat dairy products; reducing fat, especially saturated fat, and
cholesterol; reducing intake of dietary sodium; increasing physical activity; and stoppings moking (NTIH, 2004). In individual swith normal blood pressure, modification of these lifestyle factors has been shown to lower blood pressure, modification of these lifestyle factors has been shown to lower blood pressure, modification of these lifestyle factors has been shown to lower blood pressure, modification of these lifestyle factors has been shown to lower blood pressure, modification of these lifestyle factors has been shown to lower blood pressure and thereby has the potential to prevent hypertension and lower the risk of blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure and the reducing has been shown to lower blood pressure 
substantialbody of evidencestrongly supports these lifestyle modifications as a means of significantlylowering blood pressurein individuals with the intestinal blpass surgery practiced during the 1970s. On average the
reduction of excessbody weight after gastricrestrictionsurgery correlatesto about 30o/oto 40o/"of initial body weight. In 2005 the FDA issued a notice of proposed rulemaking (notice) for over-the-counter nasal decongestants and weight control products containing PPA as not safe or effective. What stepscan you take to
design a plan? In particular, dietary supplements that have similar actions to prescription and OTC medications should generally not be combined because the effects can be additive and cause harm (DeBusk, 2000). Mutch DM et al: Nutrigenomicsand nutrigenetics:the emerging facesof nutriti on, MSEB J 19:1602, 2005. It also involves identi$ring
points at which control can be applied, thus preventing or eliminating the food safety hazard or reducing it to an acceptablelevel. WongkhanteeS et al: Effect of acidicfood and drinks on surface hardnessof enamel, dentine, and tooth-colouredfilling materials, J D entistry 34:214, 2006. This section clarifies the role of medical nutrition therapy (MM) in the
 treatrrrentof establisheddisease. These foods are offered at the appropriate agesto support developmental readinessand to meet energy needs. With high dextroseconcentrations, abrupt cessation of CPN shouldbe avoided, particularly if the patient's glucose tolerance is abnormal. Infants with severe disease often require prolonged intensive medical
care. Ilnfornrnately sustainedweight lossis difficult to achieve in this age-group. Also available is rosiglitazone combined with glimepiride (Avandaryl). reductasegenoq?e Fohr IP et al: 5,IO-Methylenetetrahydrofolate
healthyyoungwomen, Am J Clin Nutr 75:275,2002. Patients may have a low serum vitamin B12level and elevated semm homocystine levels and may not process other nutrients efficiently (including iron or calcium) without normal acid production. peJoprsuocsl {IW .e rl?s peue>lJrr{}] pue 'en€ne; 'uonerp, {qap ot setngrruoJ tBrp DeJJe JnoJnrp B
str1euraJTEJ esnecegpaSe.rnocueog plnogs sa8era,regpete -uraJBJuou Jo esll -relB,r\ee { Jo seJJnospuoErppB arE lrruJ 'sn€eqdosa eqt u.,'rop snlog etfl e^ou ol e E^r cnlelsrred aqt s.&olle rstourgds (1ea8u&egdoddg) peSegdose -reddnaql ,rCtarun1oau1 .uado sn€egdose eqr Furgcrarls Jo uonexeled :asugdpaSogdosa pue ,{e,u.rrc @ aql
Sur,ra,roc'pre.trdnqlnd xu&e1 ew pue 'aleuxordde sproc :ale1 trprelueuoru Iero^ eseeJsuorteJrdsa-r pue ,seleu;oualsod asolcot p;e.trdns,vrerp ateludUos :epprw 's're1pd rEIIIsuol oqt uee..rteq snloq e serroJ srslersrredgo e..r.en:fpeg:asuqd pa&ufuaqd 'f,.tuun1oau1 'xutnqd oqr pre.4aor rr Suroro; 'ereled prer{ aqr lsure8epoo; sesse-rd Q) an€uoa
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:tarym8rq&tp 7ou04lN:uon?rJossv cpalelq uerlraurv arp ruo{ paSrpow 'erd eyddepue'nleqSeds 'qrqc seqJns sJo^EEJeSuoDse^eq IEW spooJeaJeg o 'popeousBSuruosBas rsn(PePuesPooJIIB elsEJ o 'elset Jo esuespallnp e e^eq ueuo er8eqdsdp{rI^\ slenpl^lpq . In advancedstages cor pulmonale or infection withBurkboklrria cEaciamay be
present, signifring a poor prognosis. and 0steoporosis of 0steoporosis of 0steoporosis of 20" to 2$Year{)lds Osteoporosis of PrimaryOsteoporosis of PrimaryOsteoporosis >2.5 Standarddeviations of PrimaryOsteoporosis of 0steoporosis of 0ste
tabecular and Bone tissue Tiabecular cortical Hips and Lumbarvertebrae Fracture vertebrae; other sites skeleal bones Aging Loss of sex hormones Etiology 628 PART4 l Nutritionfor HealthandFitness Height 5',6" -..---'< Common Medications That Increase Calcium Loss and PromoteRisk of Osteoporosis Phenytoin @ilantin) Phenobarbital Thyroid
hormone Corticosteroids Lasix and thiazide diuretics Methotrexate Cyclosporine Lithium Tetrarycline Aluminum-containing antacids Heparin Phenothiazine derivatives 40 60 70 Age FIGURE 24-9 Normal spine at age40 and osreopororic changesat ages60 and 70. Mtamin E content of food is stated as milligrams of a-tocopherol, milligams of a-tocopherol and osreopororic changes at age40 at a
tocopherol equivalents (mg ct-TE), or as units on supplement labels. Imagine for Ghange 50f Gounseling 19! Intervention: CHAPTER that you decided to change. In addition, the USDA Food Biosecurity Action Team (F-Bat). The counselor
 should be seatedin a manner that reflects interest in the client, such as sitting direcdy across from one another in chairs without a desk as a barrier. Of interest is the Heart Outcomes Prevention Evaluation Tlial, which included 9541 subjecs, 38% ofwhom had diabetesffusuf et al., 2000). Seenlso Minerals definition, 41 parenteral, for premanre
infants, 1 124, l 124t requirements for, in metabolic stress, 1030 supplemental, for adult total parenteral nutrition formulations, 520t trace minerals, intake, bone and., 625-626 tacmor monitor, activity-related energy expenditure measurement, 28 traditional Oriental medicine definition, 47 description, 47 3t research, centers foq 475t training, effect
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considered a "hot" condition; thus "hot" foods upset the stomach. Many genes have been found to code for iron-scavenging pathways, indicating a crucial role for iron in the survival of H- pyhri in the stomach. Close attention must be given to people receiving
enteral rube feedings (seeChapter 20). (Datafrom GallagherD et al: Healthypercentage body-fat ranges: an approachfor deuelopingguidelinesbasedon bodymass index, AmJ Clin Nutr 72:694,2000.) to preserve heat. Ireton-JonesCS et al: Equationsfor the estimation of energy expendirures in patients with special reference or ventilatory starus, and the company of the estimation of energy expendirures in patients with special reference or ventilatory starus, and the company of the estimation of energy expendirures in patients with special reference or ventilatory starus, and the company of the estimation of energy expendirures in patients with special reference or ventilatory starus, and the company of the estimation of energy expendirures in patients with special reference or ventilatory starus, and the company of the estimation of energy expendirures in patients with special reference or ventilatory starus, and the company of the estimation of energy expendirures in patients with special reference or ventilatory starus, and the company of the estimation of energy expendirures in patients with special reference or ventilatory starus, and the company of the estimation of energy expendirures in patients with special reference or ventilatory expension of energy expension of energy expension of energy expension of expensio
Burn CareRehabil13:330,1992. Being nonjudgmental of the client's practicesfosters a constructive dialogue. Infusion programs depend on the achievement and maintenance of reliable vascular access; device-related complications are significant contributors to the costs associated with the care of home parenteral nutrition patients (Sands, 2006). a-l
++ I r9 s - . Imagination and individual tailoring can sometimes do much to increase oral intake, avoiding the necessity for more complex forms of nutrition support. Lau ERIIC et al: The incidence of hip fractures in four fuian countries: the fuian OsteoporosisStudy(AOS), Orteoporos Int 12:239,2001. A possible mechanism for prebiotic modulation of
metabolic path\aysby fiber is by their fermentationinto the short-chainfatty acids (SCFAs)'(acetate, butyrate' and proprionate), which account for 85% of all SCFAs produced trials, J Hypmens 24:215, 2006a.
Guidelines for recommending and selling dietary supplements and a clinical practice paper have been published (Thomson et al., 2005). The current recommended dose is two pieces after each meal or snack containing fermentable carbohydrates. Tiventy minutes of chewing appears to cause a rise in salivary pH to a level greater
than 5.5. PenroDoNTAL ISEASE Pathophysiology Periodontal disease an inflammation of the gingiva with infection caused yoral bacteria and subsequent destruction of the individual is heterozygous. In the Framinghampopulation
the risk factorsfor HF fat were the strongest predictors of who would develop are hypertension, diabetes, coronary heart disease, and left HF (f{icklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, coronary heart disease, and left HF (f{icklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, coronary heart disease, and left HF (f{icklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, coronary heart disease, and left HF (f{icklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, coronary heart disease, and left HF (facklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, coronary heart disease, and left HF (facklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, coronary heart disease, and left HF (facklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, coronary heart disease, and left HF (facklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, coronary heart disease, and left HF (facklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, coronary heart disease, and left HF (facklas et al., 2006). Numerous changes in cardioyentricular hypertension, diabetes, and left HF (facklas et al., 2006). Numerous changes in cardioyentricular hypertension hyper
detecting l-ulnerable plaque; however, new techniques, such as intracoronary thermography, are being refined to determine the presence of mlnerable plaque (Madjid et a1., 2006). Lumen size, measured dilation, is an estimate of endothelial dysfunction (Sankatsing et al., 2005). In addition, behavioralor psychological support is
necessary. Wosje KS et al: High bone massin Hutterite women' J BoneMiner Res151429,2000- Diane RigassioRadleaPhD, RD Riva Touger-Decker, PhD, RD, EADA KEY TERMS anticariogenic suppressing the development of caries by preventing plaque from recognizing an acidogenic food calculus a hard, stone like concrerion that forms on the teeth as
a result of calcification of dental plaque candidiasis an infection causedby the yeasdike fungus Candida, rlsually Candida albicans cariogenic containing fermentable carbohydrates that can cause a decrease in salivary pH to less than 5.5 and demineralization when in contact with microoreanisms in the mouth; promoting caries development
cariogenicity caries-promoting properties of a food cariostatic having the characteristic of not being metabolized bymicroorganisms in plaque to cause drop in salivary pH to less than 5.5 demineralization the dissolution of enamel or the loss of minerals from the hydroxyapatire, the principal component of the enamel dental caries an oral infectious
diseasein which acid produced by bacterial metabolism of fermentable carbohydiates leads to bacterial invasion, causing demineralization of enamel and destruction of the tooth structure dentin the chief organic tissue of the tooth that surrounds the pulp and is covered by enamel on the crown and cementum on the roots early childhood caries (EGG)
caries panern in inftns or children, also Lnown as baby botde tooth decay; generally caused by prolonged exposure of teeth to sweetenedb"rr"oges enamel inorganic, white, crystalline, compact, and very ,an hard subsance that covers and protects the dentin of thl tooth; the principal component is hydroryapatite 636 fermentable carbohydrate any
carbohydrate rhat is susceptible to the actions of salivary amylase fluoroapatite the form in which the fluoroapatite th
gingiva the part of the oral mucosa overlying the crowns of unerupted teeth and encircling the gingival sulcus a shallow, V-shaped space around the tooth that is bounded by the tooth surface on one side and the epithelium lining the gingival on rhe other hydroryapatite a naturally occurring form of calcium
and phosphorus (apatite); the main mineral component of dental enamel and destruction of the teeth, including the ligamentous amachment of the tooth to the surrounding alveolar bone plaque a sticky, colorless film of microorganisms,
salivary proteins, inorganic components, and polysaccharides that adheres to teeth and gums remineralization the process of mineral restorarion to the hydroxyapatite in the denal enamel stomatitis inflammation of the oral mucosa Streptococcusmutans an oral bacteria implicated in the formation of dental carries xerostomia mouth dryness secondary
to lack of or insufficient saliva CHAPTER25! ltutrition for Oral and Dental Health 637 Diet and nutrition play key roles in tooth development, integrity of the gingiva (gums) and mucosa, bone strength, and the prevention and management of diseases of the oral cavity. 'Plor rleer (Ierced 'I auoN uotrBcDsBW lUeUre, roU adg uourlrtsuot [dnd 'Z
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pesneq pu? Protein hydrolysate formulas with medium-chain triglyceridesmay alsobe used (see Thble 6-5). A lacto-vegetarian does not eat meat, fish, poultry or eggs but does consume milk, cheese, and other dairy products. Rock CL, Demark-Wahnfried W: Nutrition and survival after the diagnosis of breast cancer: a review of tlle evidence, J Clin
Oncol20:3302,2002. Energy (l) Carbohydrate:9/100 ml (e'9.,D20: 20 9/100 ml, maximum 24-hr infusion) (Maximum 24-hr infusion: 5 mg/ftg) (2) Lipid: 10% 51.lkcaVml,20"/":2kcaUml (Optimal infusion 1 g/kS/za hr, maximum 24-hr infusion: 5 mg/ftg) (2) Lipid: 10% 51.lkcaVml,20"/":2kcaUml (Optimal infusion 1 g/kS/za hr, maximum 24-hr infusion) (Maximum 
independentrisk factor for chronic heart failure in older people, J. Am Griatr Soc 54:413,2006. oo ^^ 'n q > '6 ': -ox :qF +,r 9 ov9 F >,* q=. o Aim for a nonnal blood pressure. Jiporygenase promoter genot'?e, Dwyer JH et al: Arachidonate5 N EnglJ Med dietary arachidonicacid, and atherosclerosis, 350:29,2004. Starchyvegetables prepared with fat count
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 administration 5. This works well for persons who are actively trying to make a behavior change. A balanceddiet that providesadequateprotein, energy, and micronutrients. She was then instructed by her phpician to continue indefinitely on this therapeutic regimen. Kelley GA et al: Walking and resting blood preszurein adults: a meta-analysis, Prat
Med 332120,2001. The benefits of megestrol acetate are dose dependent, with greater benefit at higher doses (Von Roenn, 2006). This change has substantially reduced the cost of transplantation and thus has made it available to an increased number of patients. Nutrition therapy centers around preventing the accumulation of toxic fatty acid
alignment the counselor tells the client that he or she understanding difficult times. E DebraA. Recendy she was J diagnosed*ith breastcancer (estrogen-receptorpositive). By the year 2080 it is estimated that 51.lo/o of the total U.S. population will be composed mostly of Hispanics, followed by blacks and Asians
(Tate, 2003). Sufficient calcium and vitamin D intake are essential during this time for the mother to replete her own serum and storage levels, but repletion typically does not occur until several months after peak lactation. Iron also makes up part of many proteins and enz).mes in the body. He FJ, MacGregor GA: Effect of longer-term modest salt
reduction on blood pressure, Cochrane Datahase SystRn 3: cD0M937,200+. This rate of loss should continue for about 6 months, leading to a reduction of 10% of body weight (ADA, 2007). See also Genomics, nutritional definition, 365 nutritional intake, problems with, in Alzheimer's disease, 1083-1084 Natrition and Your Heabh: Dietary Guid.elines for about 6 months, leading to a reduction of 10% of body weight (ADA, 2007). See also Genomics, nutritional definition, 365 nutritional intake, problems with, in Alzheimer's disease, 1083-1084 Natrition and Your Heabh: Dietary Guid.elines for about 6 months, leading to a reduction of 10% of body weight (ADA, 2007).
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periodontal surgery. 102(8):1105, researchand dietetics, JAm DietAssoc SharpJ et al: A cognitive behavioral group approachto enhance adherence to hemodialysis fluid restrictions: a randomized controlled trial, Am J Kidney Dis 45t1046,2005. Nutritionstatus Nessmem. It is also low in fat and high in fiber, an eating style recommended for everyone
 chronic inflammatorydiseases, FuentesJ et al: Acute and chronic oral magnesium supplementation:effectson endothelialfunction, exercise capacity, and quality of life in patients with qtmptomaticheart Heart Fail l2:9,2006. All are poorly digested in the upper GI tract and thus supply only about 1 kcaVg (Roberfroid, 2005). Guidelinesfor
ChoosingBotanicalProducts 1. Dreon DM et al: Low-densitylipoprotein subclasspatterns and lipoprotein response to a reduced-fatdiet in men, MSEB J 8:121,1994. Figures 13-1 through 13-5 review these fundamental genetic principles. The liver removes about 50% of absorbed glucose for oxidation and storage as glycogen. It is up to you. To end the
sessionthe counselor asksabout the next step, allowing the client to describe what might occur next in the process of change. Competenry of the LES is also important. On a larger scale, histone proteins are important in silencing large regions of chromosomes and thereby multiple genes. Cancer Celiac disease Changesin activity level or dietary
preparation methods Diabetes, new onset Dysphagia or chewing difficulties Hyperthyroidism Inflammatory bowel disease Intestinal ischemia Medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications Nausea and vomiting Pancreatitisand cystic fibrosis Seea physician; monitor medications of the physician and phys
result in incapacitation, long-term nursing care, and a 20"/" death rate within a year of the fracture. However, although optimal nutrition may play a role in positive outcomes of periodontal treaffnent, nutrients alone are not a cure for the disease (Schifferle, 2005). Pathophysiology Nerve and blood cells require vitamin B12to function properly;
deficiency can cause a wide variety of symptoms, including fatigue, shormess of breath, tingling sensations, difficulty walking, and diarrhea. The ability to use generic analysis to distinguish these similar disorders has been a technologic advance (see Chapters 15 and 31). Nutrition support consists of a diet low in fat, osmolality, lactose, and
oxalate(seeChapter 27, andBox36-4 in Chapter 36). Hemodialysis requires perrnanent accessto the bloodstream through a fistula created by surgery to connect an artery and a vein (Figure 36-3). Campbell IA" Bah-Sow O: Pulmonary tuberculosis: diagnosis and treatment, Br Med J 332:1194,2006. Although other nutrients, including
vitamins A, E, B-carotene, and protein, have a role in maintaining gingival and immune system integrity, there are no scientific data to support supplemental uses of any of these nutrients to treat periodontal disease. Sticky foods such as soft white breads, caramels, chewing gum, toffees, and chewy candies should be avoided. In premature, very low-
birth weight infants (birth weights less than 1500 g, or 3 lb, 4 oz) \4tarnin E deficienry is usually characterized by neurologic problems in the hands and feet, as well as peroxidation of cellular lipid membranes. q.rrnptom of disease, it should be assessed medically. cdc.govlcancer/survivorship/pdf/overview. WessrrEs USeFUL American HeartAssociation
http://www.americanheart.org DASHDiet www.nhlbi. Optimal water fluoridation concentrations (0.7 to 1.2 ppm) can provide protection against caries development without causing tooth staining. Tindle FIA et al: Tlends in useof complementaryand alternative medicineby U.S. adults:1997-2002, Ahern TherHeahhMed II(1):42,2005. Long stretchesof
nucleotidesare often found betweenone gene and the next along the chromosome. Such sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences and comprise the majority of the DNA in humans. These sequences are called intervention to the majority of the DNA in humans. These sequences are called intervention to the majority of the DNA in humans. These sequences are called intervention to the majority of the DNA in humans. These sequences are called intervention to the majority of the DNA in humans. The majority of the DNA in humans are called intervention to the majority of the DNA in humans. The majority of the DNA in humans are called intervention to the majority of the DNA in humans. The majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in humans are called intervention to the majority of the DNA in hu
practiced therapy, is characterized by the use of large dosesof one or more vitamins. In Elliott L et al, editors: The clinicalgaide to oncohgtnutrition, ed 2. 165 heterozygous individual, 172 hexokinase/glucokinasereaction. An interdisciplinary approach involving all caregivers is recommended. Osteoarthrids (OA) affects 21 million Americans, gout
affects 5.1 million (Kramer and Curhan, 2002); fibromyalga affects3.7 million; rheumatoid arthritis (RA), 3 million; and Musculoskeletal rnJ Skin DiseasesOJIAMS), The autoimmune arthritis group, the more debilitating group, includes RA, juvenile
rheumatoid arthritis, gout, Sjogren's s1'ndrome, fibromyalgia, lupus, and scleroderma. Regardlessof the level of calorie restriction, healthful eating should be included (Shape Up Americal and American Obesity Association, 2001). In the meantime, use of MI has
been shown to have a positive effect in many behavior change studies (Resnicow and Campbell, 200+). The exact relationship between the lesions induced by thiamin deficiency and their effect on the brain remains unclear. fluctuated by thiamin deficiency and their effect on the brain remains unclear.
upper limit (UL) for the glycemic index in its 2002 recommendations. Although nonessential amino acids undergo gluconeogenesis, it is unclear why the glucose produced does not appear in the general circulation after ingestion of protein. Behavioral Risk Factor Surveillance System Public Use Data Thpe 2003: National Center for Chronical Center 
Diseaseand Health Promotion, Atlanta, 2004, Centers for DiseaseControl and Prevention. - Recomendación de asistencia nutriciona. Federal legislation helps to ensure that such discrimination does not occur, but same basic genetic techniquesare used, and the progress in streamlining genetic technology has had a beneficial effect on food
biotechnology development. On postoperative day 11 the parenteral nutrition was stopped because the jejunostomy infusion had been advanced to 80 m7hr. fu geneticsis integrated into health care, medical, pharmacologicand nutritional therapies will become more oriented toward the genotypeof each person. Since the lifetime risk of
developinghypertension the elderly differ from those seen in middle-age persons is 75 loand the prevalence of hypenensionis high, conuolwith HF CTable34-l). foo dsafety.gov http://www.gmabrands.org hwp://ific.org/food http://www.gmabrands.org hwp.//ific.org/food http://www.gmabrands.org hyp.//ific.org/food http://www.gmabrands.org hyp.//ific.org/food http://www.gmabrands.org hyp.//ific.org/food http://www.gmabrands.org hyp.//ific.org/food http://www.gmabrands.org hyp
HerbalMedicines, Elsevier, St. Louis, 2000. Vitamins and Minerals As with macronutrients, vitamin and mineral requirements for individuals with stable COPD depend on the underlying lung pathology, other concurrent diseases, medical treatments, weight status, and bone mineral density. A more pernanent method is the Janeway procedure. FIGURE
44-l Hyperphenylalaninemias. fFat contentchangessering anount for fatsand oils For enmple, I Ttrsp of a low-fat dressingequalsone sering; 1 Tbsp of a low-fat dressingequalsone sering seringequalsone seringequalsone seringequalsone sering seringequalsone seringequalsone seringequalsone seringequals
Mini-whole wheat bagel 1% tsp soft margarine I cup coffee 2 tsp sugar J-oz boneless skinless chicken breast 2 slices whole wheat bread I medium apple r/z crp raw carrot sticks I cup iced tea I cup spaghettiwith vegetarian4ow-sodiumtomato sauce 3 Ttlsp
 Parmesancheese % cup green beans I cup spinach,raw 7+cup mushrooms,raw 2 Tbsp croutons 2 Ttrsp low-fat Italian dressing I sliceIalian bread 11 cup frozen yogurt Midmorning Snack Midafternoon Snack I cup applejuice 2 oz walnuts Nutritional Analysis: I large banana Sodium:2377 mg Potassium:4129mg Fiber:32 g Magnesium:517 g Kilocalories
1980 Protein: 78 g Fat: 56 g Saturated fat: 13 g Carbohydrate Protein Fat Calories Menu Ideas Menu Ideas Menu Ideas Carbohydrate group Fat group Fat group Fat group Fat group Fat group Fat group Carbohydrate
group Starch Fruit _ Milk Vegetables Meat group Fat group The Exchmge Liss re the basis of a meal plming system designed by a committee of the American Diabetes Asociation. The prevalence of HF increases with age and ethnicity. for HeartFailure and Transplant897 CHAPTER 34 is
MedicalNutritionTherapy Troy is a 40-year-oldmale with I{E He is 6' 0'and weighs | 180 lb. I love my 1080i CRT HDTV compared to almost every 720p LCD screen I've ever seen and anyone else who owns one can probably tell you the same. A review of srudies in which patients experienced a 107" or less weight reduction showed that they also had
improved glycemic control, reduced blood pressure, and reduced cholesterol levels. These tubes are designed for patients in whom prolonged gastrointestinal decompression is anticipated. The total energy available from a food is measured with a bomb calorimeter. PrepNet ensures effective coordination of food security efforts, focusing on preventive
 activities to protect the food supply. Ferrara I-A et al: Olive oil and reducedneed for antihlpertensive medications, Arcb Intnz Med 160:837,2000. One formal program, organized in 1996, is the Hazard Analysis Critical Gontrol Points (HACCP), a sysrematic approach to the identification, evaluation, and control offood safer J hazards. Fungal Infections
Oropharyngeal fungal infections maycause a burning, painful mouth and dysphagia. In observationalstudies and in short-term studies, moderate amounts of alcohol did not increase triglyceride levels in hypertriglyceride levels in hypertriglyceride levels in hypertriglyceride levels in hypertriglyceride levels in postrnenopausal women
(Davies et al., 2002). Sucrose(e.g., tablesugar, canesugar, beetsugaggrapesugar) is formed when glucoseand fructose are linked together. Concerns about the possible risks of breast and endometrial cancers in women, starting with a major report in 1995, have led to this change in the use ofestrogens. "How do you limit the amount of saturated fat in
your diet now?" . C H A P T E R2 0 a significant portion of total daily fluid and electrollte intake. cow's milk, 206 Whipple procedure, 735 definition, 708 nutritional implications, 977 Whipple's triad definition, 708 nutritional implications, 977 Whipple procedure, 735 definition, 708 nutritional implications, 977 Whipple's triad definition, 708 nutritional implications, 977 Whipple's triad definition, 708 nutritional implications, 977 Whipple procedure, 735 definition, 708 nutritional implications, 977 Whipple procedure, 978 definition, 978 white additional implications of the procedure in the proced
whites, communication style, 492t WIC fIV'omen, Infants and Children), 124t knowledge deficit about, 334b Williams syndrome, 373 Wilson's disease, 127, 716-717 definition, 708 dietary restrictions, T22 Witzel jejunostomy, 510 WKS (IVernicke-Korsakoffsyndrome) definition, 1068 women. ietitians and nutritionists play an important role in emergency
preparedness. The role of qualified nutrition professionals will vary with the type of emergency of disaster (e.g., hurricane, flood, foodborne illness outbreak, ice storm). Some of the proposed diets would lead to nutritional deficiencies over an extended period; however, the potential health risfts are seldom realized because the diets are usually
 abandoned after a few weeks. Observations from the Third National Health and Nutrition Examination Survey OIANES III) clearly demonstrate that prevalence of this condition manifests as the metabolic slmdrome in various age-groups (Ford et a1.,2002). Clinical status Fluid requirementt Energy (kcal) requirementt Proteinrequirementt 5. Calcium
phosphate costs more than calcium carbonate but less than calcium citrate. after hospital needs failure learning Heart ClarkJ, Lan V Appl Nurs Res17:150,2004. Recovery from cancer treatment also requires physical activity to rebuild muscle and regain strength and energy (Brown et al., 2003). teatment includes thickened feedings, upright
positioning, medications such as antacids or histamine H2-receptor antagonists, and in severe cases, surgical fundoplication. The long cellulose fibrils great mechanical strength but limited flexibility. Gatecholaminergic (related to brain neurotransmitters
norepinephrine, epinephrine, and dopamine) drugs act on the brain, increasing the availability of norepinephrine. The averagevalue and the standard deviations. Honey is madeup of glucoseand fructoseproducedby the en4lmeson sucrosein
action of honeybeerucrase and ann'y lase nectar. Lactose, or milk sugaqis formed by glucose and galactose and made almost exclusively in the mammary glands of lactating animals; it accounts for 7.50/" and 4.50/oof the composition of human and cow's milk, respectively. Maltose (malt sugar) formed by glucose molecules is seldom found naturally in the
food supplybut is formed by hydrolysis of starchpolyrnersduring digestionand is alsoconsumedas an additivein numerousfood products. Colorful outdoor backgrounds can help you to feel relaxed or energized for the rest of the day. This is effective because, if the first strategy does not work, the client has other choices. Iuliano-Burnset al: Diet and
exerciseduring growth have siteInt 16:1225, specificskeletaleffects: a co-twin sttdy, Osteoporos 2005. The %DV listed on the Nutrition Factspanel of food labelsstates the percentage of the DV provided in one serving. Partial or complete tooth loss (edentulism) is common in persons older than 65 years of age and can have a significant impact on dietary.
intake, especially fiber and protein. The third step is to arrive at a plan, one that has been devised by the client. However, subclinical changes may include a decrease in lean body mass without apparent total body weight change, vitamin B12deficienry, and increased susceptibility to foodborne and waterborne pathogens. The ToDV column in this
table indietes the percentage of the DV provided in one sering. Should you invite family members to attend the counselingsession? Why or why not? Broekhuizen R et al. Pulmonary cachexia, systemicinflammatory profile, and the interleukin 1B-511 singlenucleotide poll'rnorphism, AmJ Clin Nuv82:1059, 2005. U.S. Department of Agriculrure (JSDA)
USDA-Iowa State University databaseon the isofnuone content of foods, fromhttp:// www.nal.usda.govlfrric/food comp/D ata/ isofl av.htrnl, accessedMay 30, 2006. ParenteralNutrition Complications Mechanical Gomplications Me
MetabollcComplications-contU Catheter enrance site Contamination Hyperphosphatemia Hlpophosphatemia Hlpophos
 Essentialfatry acid deficienry Hyperlipidemia Metabollc Complications Dehydration from osmoric diuresis Hyperosmolar, nonketotic, hyperglycemia on suddencessarionof parenteral nutrition in patient with unstable glucoselevels Hypomagnesemia Hypocalcemia Gastrointestlnal Complications Cholestasis
en4irnes Hemoglobin, hematocrit Platelets WBC count Clinical status Cathetersite Temperature I&O Daily Daily Weekly Weekl
glucoseintake is being achieved. Later period implies that the patient had achieved steadymetabolic state. Exposure may be best explained with starchy foods, which are fermentable carbohydrates subject to the action of salivary amylase. Pretein. These changes can then be correlated with chemical, histologic, and clinical
 finding:s to formulate a diagnosis. Theory Set-Point Fat storagein nonobeseadultsappearsto be regulatedin a manner that preserves specificbody weight. Individuals diagnosed with cancer often have central fV accessto accommodate multiple W therapies (i.e., chemotherapy, blood products, hydration, and [V medications). When there is a terminal
illness, starring nutrition support may have no advantage and may prolong suffering in some cases. It is prudent for dietitians to be involved in ethical decisions according to the policies of their institutions. If the GI tract is not functioning, nutritional support can be provided parenterally (see Chapter 20). pflori infection, the primary focus of treatment
in most cases the eradication of this organism. IJntreated periodontitis results in a gradual loss of tooth attachment to the bone. This requires careful monitoring of patient tolerance and quantification ofintake from parenteral, enteral, and oral routes. Contrary to popular belief, spot reduction (i.e., reducing fat in one area of the body) is not possible from parenteral.
with exercise; fat is burned from rhe largest concentrations of adipose tissue. Mueller, PhD, RD, FADA, LDN.2006. Fluid requirements are increased during anticancer therapy or in the presence of fever, diarrhea, or renal failure. This process is often less predictable than the ffansition to enteral feeding and depends on the patient's appetite
motivation, and general well-being. After stabilization in the postanesthesiacare unir, Jerome was transferred to the intensive care unit (ICID with an endotracheal tube in place for mechanical ventilation. Changing lifestyle factors and control of hypertension. Disadvantages of their use include weight
gain and the potential to cause hlpoglycemia. In addition, he does not drink milk but does consume other dairy products. Discussion of both the advantages and disadvantages of nutrition support should be initiated with the patient and family well ahead of need; options should include a description of feeding schedules, tube placement procedures, and
appropriate training (see Chapter 20). Fluid Fluid needs for adults can be estimared at I ml of water per kilocalorie, or 30 to 35 ml/kg of usual body weight (iee Chapter 4). Kritchevsky D: Caloric restriction and cancer, J Nutr Sci Vitaminol47:13,2001. Center for Food Safety and Applied Nutrition (CFSAN)' USDHHS, Food and Drug Administration,
 Becatse PAL is the ratio of TEE to BEE, the energyspentduring activities of daily living, the sedentarylifestyle category has a PAL range of I to 1.39. Merchant AT et al: Intake of n-6 andn-3 fatty acidsand fish and risk of community-acquiredpneumoniain U.S. men, Am J ClinNut 82:668,2005. She is 7570 of her usualweight, which is 125 lb; sheis 65
 inches all. Of these, weight reductionis consideredthe primary therapy for obesity-relatedhlpertensionin children and adolescents. Caries can occur on any tootl surface. StoverPJ:New paradigmsfor nutrient conrrol of genome translation, Nutr Rea61:427, 2003. The opportunities for members of an affluent society to choosefrom a great variety of foods
can easily lead to an overabundant intake of energy. Short- and medium-chain saturated fatty acids, monounsaturated fatty acids, and omega-3 polyunsaturated fatty acids, and omega-4 polyunsaturated fatty acids, and omega-4 polyunsaturated fatty acids, and omega-4 polyunsaturated fat
checking gastric residualsbecauseprocedures are not standardized, and the practice of checking residuals does not protect the patient from aspiration. Lee understandportions or types offood that she should select? The remainder is metabolized via nonreceptor pathways. To move out of this phase usually requires increasing the activity level. An
antiaspiration pureed diet was started. Gastritis may manifest by a number of q.mptoms, including nausea, vomiting, malaise, anorexia, hemorrhage, and epi- The Genome of Helicobacterpylori he ability of robotic analyzers to sequence long lengths I of deoxyribonucleic acid automatically and the rapidity with which computers qrn scangene dau banks
have spawned a new discipline in the biomedical sciences: genomics. Ernst E: The efficary of herbalmedicine-anoverview, Fundamental disease, extensive dental caries, two broken teeth, and a broken three unit bridge (a bridge that supports three teeth).
Birks] et al: Ginkgo biloba for cognitiveimpairment and dementia, Cochrane DatabaseSystRn, CD001120, 2002. CHAPTER 32 i MedicalNutritionTherapyfor Cardiovascular Disease849 Potential Inflammatory Markers for Cardiovascular Disease849 Potential Disease849 Potential
necrosis factor o. People 50 years and older now representance than 10% of the total number of AIDS casesreported, becoming a larger percentage. They have laid the foundation for personalized therapy in many aspects for health care. AlBody weight is often described in terms of its composition, and different models have been advanced to estimate
body fat. J Am MedAssoc SchallJI et al: \ttamin A status, hospitalizations, and other outcomesin young children with sicklecell disease, / Pediatr 14599,2004. Prasad KN et al: Scientific rationale for using high-dose multiple micronutrients as an adjunct to standard and experimental cancer therapies, J Am Coll Natr 20:4505, 2001. According to the
growth charts, he is in the lOth percentile for height, the 5th percentile for weight, and below the 5th percentile for height. problem, it is discussed RefluxandEsophagitis Gastroesophageal Prevalence andPathophysiology Reflux of gastric contents into the esophagitis Gastroesophageal Prevalence andPathophysiology Reflux of gastric contents into the esophagitis Gastroesophageal Prevalence andPathophysiology Reflux of gastric contents into the esophagitis Gastroesophageal Prevalence andPathophysiology Reflux of gastric contents into the esophagitis Gastroesophageal Prevalence andPathophysiology Reflux of gastric contents into the esophagitis Gastroesophageal Prevalence andPathophysiology Reflux of gastric contents into the esophagitis Gastroesophageal Prevalence and Pathophysiology Reflux of gastric contents into the esophagitis Gastroesophageal Prevalence and Pathophysiology Reflux of gastric contents into the esophagitis Gastroesophageal Prevalence and Pathophysiology Reflux of gastric contents into the esophagitis Gastroesophageal Prevalence and Pathophysiology Reflux of gastroesophageal Prevalence 
heartburn symptoms episodically. com Specialdrink, l%-hr weekly group multidisciplinary meetings with Medifast www.med.fast.net Specialdrink; physician supervised Optifast www.optifast.com Specialdrink; physician supervised Optifast www.optifast.com Specialdrink; physician supervised team registered dietitian (RD) and midweek phone calls Weekly individual sessions Weekly group meetings Weekly
individual sessions with MD l%-hr weekly group meetings One meeting www.jennycraig.com Prepackagedfoods 14 1-hrvideo group classes; weekly individual sessions RDs and psychologists CHAPTER21 I Weight Management 547
Use of the Internet has spawned new generation of commercial programs. The resulting proteins typically function slightly differently from the more common version but aren't enough in themselves to cause a debilitating disease. Therefore the e-mail and phone consults appear to be viable methods for delivery of contact and support as part of
structured behavioral weight loss programs. Kerem BS et al: Identification of the rystic fibrosis gene: genetic analysis, Scitnce245:1073, 1989. A popular variation limits fat to 20"/" of total energy intake. Qi L et al: Geneticvariation at the perilipin (PLIIrr) locusis associated with obesity-related phenorypesin white women, Clin Genet66:299,2004a.
Once assessmentis complete, treaffnent can begin. She is 5 ft, 8 in tall, weighs 185 lb, and has a history of mild hipertension that has been controlled with dietary measures. He follows a strict kosher diet. I know that, when the time is right for you to make a change, you will find a way to do it." When the session ends, the counselor will let the client
know that the issueswill be revisited after he or she has time to think. Not all of the energy in foods and alcohol is available to the body's cells. Therapies such as parenteral nutrition or enteral tube feedings, mechanical ventilation, supplemental orygen, and medications may be required long after the infant's discharge from the hospital. Fluoride is
most effective when given from birth through ages 12 to I 3, the period when miner alization of unerupt-ed permanent teeth occurs. He is physically active, cycling three times each week for at least an hour each time. 952 PART5 Medical Nutrition Therapy A 5-year randomized trial of men on a diet of a normal level of calcium but low in salt and
animal protein (52 g total with 21 g from meat or fish and 31 g from milk and derivatives) showed a 51% reduced stone incidence as a result of decreasedurine calcium, oxalate, and calcium-oxalatesaturation (Borghi et al., 2002). (increased Lifestyle modification exercise) Psychological therapy whennecessary Medications Surgery. The Of6ce of
Dietary Supplements has developed facts sheets for an extensive list of dietary supplements that can be used by health care professionals to educate patients. Ann NY
Acad Sci 1031:234,2004. Diets, massage, and herbal medicine are common choices. In general, examples of CAM therapies commonly used by cancer patients include nutrition (diet) and metabolic therapies (see Chapter 18). Mtamin D is
needed for the absorption of calcium from the stomach and for the functioning of calcium in the body. gc.calfn-an/index e.htrnl He a l t h yE a t i n gIn d e x . The acute toxicities of immunosuppression that can last for 2 to 4 weeks after the transplant include nausea, vomiting, anorexia, dysgeusia, stomatitis, oral and esophagealmucositis, 978 PART5
MedicalNutritionTherapy NutritionImpactof Gancer Therapies: Surgery AnatomicSite Common Nutrition Impact Symptoms Oral cavity Difficulty with chewing and/or swallowing, dysphagia
fupiration potential Gastroparesis Indigestion and/or acid reflux Alterations in normal swallowing, decreased motility Anastomotic leak Shortnessof breath Early satiety Dumping qrrdrome Dehydration Early Satiety Dehydrome Dehydrome Early Satiety Dehydrome Dehydrome Dehydrome Early S
Fluid and electrolyte Fat malabsorption (vitamins Brz, A, D, E, and I! magnesium, zinc, calcium, iron) Hyperglycemia Hepatocellular -cont'd Hypertriglyceridemia Fluid and electrolyte imbalance Vitamin and mineral malabsorption (vitamins A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and electrolyte imbalance Vitamin and mineral malabsorption (vitamins A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and electrolyte imbalance Vitamin and mineral malabsorption (vitamins A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and electrolyte imbalance Vitamin and mineral malabsorption (vitamins A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and electrolyte imbalance Vitamin and mineral malabsorption (vitamins A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and electrolyte imbalance Vitamin and mineral malabsorption (vitamins Brz, A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and electrolyte imbalance Vitamin and mineral malabsorption (vitamins Brz, A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and electrolyte imbalance Vitamin and mineral malabsorption (vitamins Brz, A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and Electrolyte imbalance Vitamin and mineral malabsorption (vitamins Brz, A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and Electrolyte imbalance Vitamin and mineral malabsorption (vitamins Brz, A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and Electrolyte imbalance Vitamin and mineral malabsorption (vitamins Brz, A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and Electrolyte imbalance Vitamin and mineral malabsorption (vitamins Brz, A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and Electrolyte imbalance Vitamin and mineral malabsorption (vitamins Brz, A, D, E, Il and B12; folic acid, magnesium, zinc) Gastroparesis Fluid and Electrolyte (vi
electrolyte imbalance Hyperglycemia Fat malabsorption (vitaminsA, D, E, Il and B12; calcium, zinc, iron) Chyle leak Lactose intolerance Bile acid depletion Diarrhea Fluid and electrollte imbalance \\4tamin and mineral malabsorption (vitaminsBrz,A, D, E, and K; calcium, zinc, iron) Chyle leak Lactose intolerance Bile acid depletion Diarrhea Fluid and electrollte imbalance \\4tamin and mineral malabsorption (vitaminsBrz,A, D, E, and K; calcium, zinc, iron) Chyle leak Lactose intolerance Bile acid depletion Diarrhea Fluid and electrollte imbalance \\4tamin and mineral malabsorption (vitaminsA, D, E, and K; calcium, zinc, iron) Chyle leak Lactose intolerance Bile acid depletion Diarrhea Fluid and electrollte imbalance \\4tamin and mineral malabsorption (vitaminsBrz,A, D, E, and K; calcium, zinc, iron) Chyle leak Lactose intolerance Bile acid depletion Diarrhea Fluid and electrollte imbalance \\4tamin and mineral malabsorption (vitaminsBrz,A, D, E, and K; calcium, zinc, iron) Chyle leak Lactose intolerance Bile acid depletion Diarrhea Fluid and electrollte imbalance \\4tamin and mineral malabsorption (vitaminsBrz,A, D, E, and K; calcium, zinc, iron) Chyle leak Lactose intolerance Bile acid depletion Diarrhea Fluid and electrollte imbalance \\4tamin and mineral malabsorption (vitaminsBrz,A, D, E, and E, and B, and B,
Dehydration Bloating, cramping, and/or gas Fluid and electrolyte imbalance \ttamin and mineral malabsorption (vitamin 812, sodium, potassium, magnesium, calcium) Early satiety Bloating, cramping, and/or gas Nausea and vomiting If taking corticosteroids, possible hlperglycemia Lanrax Esophagus Lung Stomach Gallbladderand bile duct
Hepatocellular fatique and diarrhea. Other causesinclude primary kidney lar apparatus) to react by secretingrenin, a proteolytic suchasimmunoglobulinA nephropathy; hereditary diseases form angiotensinI, which is converted to angiotensinII,
thematosus(SLE), vasculitis, and glomerulonephritisassoor infected wentriculoa powerfulvasoconstrictorand a potent stimulusof aldociated with endocarditis. LedikweJH et al: Dietary patternsof rural adultsare associated with weight and nutritional sratrs, J Am Geriat
Soc52(4):589, 200+. The recognition of nutrient interrelationships provides further support for the principle of maintaining variety in foods to provide the most complete diet. It is best to maintain cardiovascular health at maximum level, regardless of weight, by 20 to J0 minutes of high-intensity activity 4 to 7 days per week (Institute of Medicine,
2002). T I rs in this section reflect the evolution of nutritional science, from the on of nutrient requirements and the practical application of this knowl- edge to the concepts that relate nutrition to the prevention of chronic and degenerative diseases and optimization of health and performance. Bones not subjected to normal use rapidly lose
mass. Invalids confined to bed or persons unable to move freely are commonly affected. Percutaneous Endoscopic Gastrostomy (PEG) is a nonsurgical technique for placing a tube directly into the stomach through the abdominal wall, performed using an endoscope and with the patient under
local anesthesia. Tirbes are endoscopically guided from the mouth into the sromach or the jejunum and then brought out rhrough the abdominal wall (using local anesthesia) to provide the accessroute for enteral feedings. A range of recommendedlevelscan be found in the literature, from 0.5 to 0.8 g/kg for nondialysispatients to 1 to 2 gkg for
dialyzed patients. fu the patient's overall medical status stabilizes and improves, metabolic requiremens decrease, and dialysis becomes less hazardous. During this stable period before renal function returns, it is generally agreed that a minimum protein intake of 0.8 to I g/kg of body weight should be given. Since chronic kidney disease is common (estimates
place it at one in nine people in the United States), there is a move to require all clinical laboratories reporting semm creatinine to also report the patient's estimated GFR (eGFR). Strategies for modifiring nutrient intake depend on the specific feeding problem and the extent of depletion. Stresses from muscle contraction and maintaining the body in
an upright position against the pull of gravity stimulate osteoblast function. Excessive caffeine intake may have a deleterious effect on BMD (Ruffing et al., 2006). tv.)YvA x { 1.6 1.6 1.9 Hh H E j Q deb oP 5E Oa qi ma ov hg!:; H6 c! OF = bo EE -o:: U -Y 92 a, q oe
3F 9o o6 =o etr 'i: F6 L o a E o o u.3 E C,8 o7) d. ir E '.Y sn c) 5ob .ncfr tr':.Y o . Calcium carbonate is 40% elemental effects of maternal PKU are recognized as a significant public health problem. 882 PART5 I MedicatNutritionTherapy Nutrition Diagnosis: Excessives odium.
inake related to consumption of high sodium foods as evidenced by diet history revealing more than 4-g sodium consumed daily 1. TnnNsrrroNAL FeeDrNG All nutrition or by a total or partial return to oral intake. Important factors in the defense of
the gingiva to bacterial invasion are: (1) oral hygiene; (2) integrity of the immune system; and (3) optimal nutrition. Friedman and invasion are: (1) oral hygiene; (2) integrity of the immune system; and (3) optimal nutrition. Friedman and invasion are: (1) oral hygiene; (2) integrity of the immune system; and (3) optimal nutrition. Friedman and invasion are: (1) oral hygiene; (2) integrity of the immune system; and (3) optimal nutrition. Friedman and invasion are: (1) oral hygiene; (2) integrity of the immune system; and (3) optimal nutrition. Friedman and invasion are: (1) oral hygiene; (2) integrity of the immune system; and (3) optimal nutrition. Friedman and invasion are: (1) oral hygiene; (2) integrity of the immune system; and (3) optimal nutrition. Friedman and invasion are: (1) oral hygiene; (2) integrity of the immune system; and (3) optimal nutrition. Friedman and invasion are: (1) oral hygiene; (2) integrity of the immune system; and (3) optimal nutrition.
dense foods, and planning expectorant medication use apart from mealtimes. In that context, the RDs can then provide sound evidencebased information about CAM therapies so that the patient can make informed choices and avoid undesired risks. Decreased levels of vitamin D metabolites have been observed. How to recognize a quality preparation
for each supplement, any known safety concerns and contraindications, and whether there are any known or potential interactions between each supplement and prescription or OTC medications and other dietary supplements or foods should also be reviewed (see Chapter 16). Other same age women of the the pelvis, ribs, and such as bone
ponderance of trabecular BMD. SseLarge or gestational age life coach, registered dietitian counselor as, 500b lifestyle choices, in adulthood, 273 implementation of, 276-27 7 lifestyle modification definition, 532 for hypertension,
874 in hypertension prevention and management, 871 t in obesity management, 544-545, 545b in weight management, 545-46 limiting amino acid,63
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and have higher osmolarities, which may contribute to gastrointestinal intolerance. Diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids similar to those from diets high in monounsaturated fatry acids appear to have effects on lipids acids appear to have effects on lipids acids 
editors: Nutrition assessment, Chicago, 2004, American Dietetic fu sociation. A balanced ratio of protein (15% to 200/oof calories) with fat (30% to 450/oof calories) and carbohydrate (40% to 55% of calories) with fat (30% to 450/oof calories) and carbohydrate (40% to 55% of calories) is important to preserve a satisfactory RQ from substrate metabolism use (see Chapter 2). 5 5 0 - 51 5 RNA (nRNA) messenger definition, 365 in
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metabolic stress,1021-1041 h e a di n j u r y a s , 1 0 3 2 - 1 0 3 3 hormonal and cell-mediated response, r022-t024 metabolic stress (Continued) major burns as, 1031-1037. See also B. urns, malor multiple organ dysfunction sy'ndrome as, 1025 -1032. It has been supplemented in enteral formulas for a potential role in preserving gastrointestinal integrity
and immunity. Tai Chi may be modestly beneficial flVoo et a1.,2007). Substrate Fermentablecarbohydrates, those carbohydrates (RD) and related conditions include more than 100 different manifestations of inflammation and Ioss of
function of connecting and supporting body structures, including joints, tendons, ligaments, bones, muscles, and sometimes internal organs. To respond to scientificadvances in diet and health throughout the life cycle, the DRI model now includes four reference points. During cell division the deoxyribonucleicacid (DNA) molecule unwinds, and the weak
bonds between the basepairs break, allowing the strandsto separate. Each strand directs the slmthesis are adheredto (i.e., adeninewill pair only with their complementary baseson each of the separatedstrands. Strict base-pairing up with their complementary baseson each of the separated to strand directs the slmthesis of a complementary baseson each of the separated to strand directs the slmthesis of a complementary baseson each of the separated strands.
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[a C-G pair]). For all these reasons, vitamin K supplementation is recommended. Be prepared to discuss what other programs and resources are available in your community which would support LJ and her children to improve their nutritional status (e.9. food pantry, food stamps, primary care educational program for children) Nutrition Diagnosis: Lack of access to safefoodsand water related to no planning as evidencedby insuffrcient preparation and food and water supplies for emergencies. A decrease in the total kilocalories ingested results in a decrease in the total kilocalories ingested results in the total kilocalories in the total kilocalories in the total kilocalories in the total kilocalories in the sauces, and gravies. Mod'ifud'foodstnrchis chemically or physically modified to change is viscosity, ability to gel, and other texture properties. Pregelatinized starch, dried on hot rolls or drumsand made into powder, is porous and rapidly rehydrated with cold liquid. Calcitonin can be administered by nasal spray. On very low calcium intakes of =200 mg/day, oxalate absorption rose to 170/o, whereasit fell to 2.67" when 1200 mg of calcium was ingested. DNASequence Person1 AAATTT t Person2 AATTTT? He states that he feels best when his weight is between 155 and 160 pounds. Jim worls as a hairdresserand is on his feet all day. Animal Protein Foods That Raise Urinary Oxalate Excretion Rhubarb Spinach Strawberries Chocolate Wheat bran and whole grain wheat products Nuts (almonds, peanuts, or pecans) Beets Tea (green, black, iced, or instant) Data from Siener R et al: Oxalate content of cerealsand cereal oroducts. See Alzheimer's disease addiction, 1104b adenosined phosphate (ADP) definition, 587 in energy production, 588 adenosinetriphosphate(AIP) definition, 587 in energyproduction, 588 adequateintake (AI) definition, 337 in DRI, 338 ADHD. Most CAM therapiesemphasize holistic approach to health and promote satiety by delaying stomachemptying time, and to decrease to a small degree the efficienry of intestinal absorption. It ahl reflects the availability of foods, socioeconomicconditions, storage and preparation facilities, and cooking skills. middle age, 887t hypertension ffeatment in, 879, 881 immunocompetence in, 295 lipid needs in, 300 long-term living facilities for, 303-304 medicate benefits in, 301 mineral needs in, 300 neurologic function in, 293-294 nuffition assessmentin, 299 d) older adulthood(Continue nutrition in preventionin, 297-299, 298f oral health in, 292 physiologicchangesin, 290-295 preparingregistereddietitiansfor work with, 289-290b pressure ulcersin, 294,295b proteinneedsin, 299 qualifications,287 quality of life in, 295-297, 296f in, 293 renaldisease sedentarylifestylein, 291-292 sensorylossesin, 300 waterneedsin, 300 Older AmericansAct (OAA) nutrition program. Examples of nonfatal chromosomal abnormalities include trisomy 21 (Down slmdrome), trisomy 18 (cri du chat slmdrome), and Klinefelter's qmdrome, in which an extra chromosome 2I, 18, or X is present, respectively. 5 I1.5 2.0 11 l) ll \*Daily values (DVs) are reference numbers based on t} terespectively. detemine if a food contains o/oDV listed a lot or a little of a specific nutrient. Samanic C et al: Obesity and cancer risk among white and black United States veterans, CancerCausesControl 15:35, 2004. Foods that have been prepared in this way can carry a kosher designation. Gommon DietaryPatterns: AlaskaNatives The Alaska Native diet consists of a mixfure of traditional foods and American prepared and processed foods. Seealso Genomics, nuffitional of dietary supplement use, 481-481, 482b of nutrition, 286 for older adults, 103-104 assisted reproductive technology (ART) preconception nutrition and, 161 asthma, 904 definition, 899 AT (activity thermogenesis) factors affecting, 26 definition, 1005 atherogenesis, 836 atheroma definition, 833 development, 835 atherosclerosis care management algorithm for, 85lf definition,833 development, 836, 836f pathophysiology,834-837, 85 3f atherothrombosis C-reactive protein and, 848 definition,833 athletes alcohol use by, 603 amenorrheic, osteoporosisin, 628 caffeine use by, 603 eating disorders, 568 ergogenic aid, 603-605t fl uid absorption, 602 -601 supplements, usage,606t weight management, 593-599 carbohydrates, usage, 593-595 fats, usage, 597 macronutrients, usage, 597 m and tenofovir disoproxil fumarate), nutritional complications, 1005t atrophicgastritis definition, 286,654 in olderadulthood, 293 attention deficit disorder, nutrition, 11 10 t attention-deficithyperactivitydisorder (ADHD), 1187-1188 definition, 1170 in childhood, 238 challenge. ars.usda.gov/nutrientdata WhatWe Eatin America http ://www.barc.usda.gov/bhnrc/foodsurvey/home.htrn References American Dietetic Association Media Release:Disasters and emergencies: are you prepared? Saffle JR et al: A randomized trial of indirect calorimetry-based feedings in thermal injrry, J Tiauma 30:776, 1990. Stress Ulterc. Deitch EA: Multiple organ failure, Ann Surg 216:117, 1992. in an area immediately below the pylorus. Such findings suggest that nutrient recommendations tailored to genotype would be beneficial. sr ro etcr [llogsteur Supsar rarlteg/,!\ pastercrr uoBetuasarderp dlerauaS 'eseercurtg8ra,ryt Surdusduo]] e gtr,r\ 6]V rpl-4aslenpr rpur eruos ur dole, repleru erFeddesnouoDnlS e g8nogrly 'pegsunoulcur uago sr uopelndod snn esneJaq IeDuessesr luaFed eq1Josntels uonlDnu eg1JouoFEurTJeteCI r{ de ,t aqu 1 or trr }n N le3tpaW 's.reed ot Je o eurTJepe rpp\ aarsserSord 97 S sI eseesrpeqt aJurs.{yproedsa'lueuodrur eJBsseueJe,t\eranrS -arBJ pue uoddns crrpedurE 'OOOZ''p ra ueqele3) enueur -ep Jo surordurls pcr8oloqcdsd pue promeqeq a,rordtur or u.,rrogsueeq ser{ a:ec f:ruqdrrsrpJetur e^nBroqEIIoJ .tueur -leeJr e a{l sr erec f:euru4 DJe#e rsoru tueua8eueur 'uoEelr8e ro 'ltarnrr 'daeys peqrntsrp toureqeq lus.rraqe sserddns ot pesn are suon -Errpeu rorpo eruos 'uopru€oc pue uortJunJ {roq ur lueur -azr.ordrurtseporu ,t1uo sa,rl€ '61V lueun?ar eqt ur esn JoJ Jo (VCg) uopsrsrurupv 8ruC pus pood atp lq panordde rol -lqlqq esBrelseurlor{Jls]g eqt 'euuJEJ 'e^pJeJJelsolu aq o1 pe^orTeqdpuarrnc e:e (sprcedue; g-e8euo puu ,sluepxogur raqlo 'E urruBlr^ 'aur1oqc1&acr ''3'a) nuaruelddns uonrr -nu qtp\ uorreurqruor ul (sCNSt\D s8rup &oreurruugurnue IeproJetsuou pue'leluerurradxa sureruer lueruleerl 8n-rq 'serde.reqlue,tordun uretueJ g pue'J'g sulurelra;o sasopeSeru pue l(edop-r) edopoaal fsluepurps :sJotelrpose^IBJqereJfsrsFe dFueunc tueuDearl e^nlu5ep oN 'uonJury pcrSoloqcdsdornau anordurr ,'(eur uslloq?leu uI?Jq Jo luau.rtrdurr eql lB petJaJrp tueunea{L 'srsou5erp lf,oterr rguoc e eruesqe er1r asneceq rusrJ Jo Jo -nlrr ot percafqnseq deur sarpn]s'tlnsar E sV 'uorsnlrxa Jo euo pue e^Edunserd sr srsou5rrp aqr '.{1pcruq3 .fSologred -otsrg dq pesou8erp sl rI 'OV roJ aJnr ou sr dpuerrnr araqJ ]uarulEalllPsrpaN 'f5oyoua eqr;o rred aq osle luu (1orarsa1 -orIJ ruruas qSrq 'ere1o;,tro1'aurels,{cotuoq pete^e1a})a>1orrs pue eseasrpueeq ot palelar sJotcq arIJ pue '8uqru8rs uq -nsur perredrul'(S002'ppry) stueuodruocpr-lpuoqcornu la1 ol aSerueq 'lo]etselogc go uodsuet eql ur pa^lo ur sr pu? All FDA-approved nonnutritive sweeteners, when consumed within the establisheddaily intake levels, can be used by personswith diabetes provide no evidencethat nonnutritive sweeteners foods causeweightlossor gain (Rabeneta1.,2002). Table 21-5 lists catecholaminergicagentsused for short-term weight loss. Under these circumstancesit is seldom continued long enough to produce the serious neurologic, hormonal, and Jther side effects that accompanyprolonged starvation. I rypropnan FIGURE 35.8 Endosenous oxalate formation. In the latter case nocturnal tube feedings can bridge the gap berween oral intake and actual nutritional requirements. Similar to protein, the carbohydrate source and degree of hydrolysis affect osmolarity. Masoro EJ: Overviewof caloric restriction and aging, MechAging Dea 126:913,2005. Biochemical measurements will indicate whether malnutrition accompanies the underweight (see Chapters 14 and 15). The suitability of a feeding formula for a patient should be evaluated based on the following characteristics of the formula such as osmolarity and viscosiry (3) energy and nutrient content, (4) digestion and absorption capability of the patient, (5) other clinical considerations of the patient such as fluid and electrolyte status and organ/system function, and (6) costeffectiveness. Small bowel (Figure 20-3). CHAPTER for Pulmonary llisease 9f9 35 | MedicalNutritionTherapy f) ick is a 63-year-old widower who is a retired commercial | \ carpet installer. ua,ra 'q urruefrl qlur srce(qns dlrapya Jo uongl 'seruoq -ueuelddns reqr rsaSSnsserpnts IEJe^esruo{ srFseu Surrrq esorfl se ila,l.r.sB 'ueurorh l1-rep1eSurrrq-aa.g uI punoJ uaeq e^Bq C unuBlr lxorp.{q-57Jo sla^el ^\oT '(E :erdeq3 aas) e8uer IBruJou et11 ur uortBJlueJuoJ uor runrclec rurues agr daal ot peseerJurosyesr uondrosar euoq 'HJd uruss Jo uoEe^ele ue ot stnql.rluoJ seletur unrJIEJ, trol esngJefl 'raaouJnt euoq pesgerJur pue rusrprordgrered -rad, {q f-lepuocas sr, {ouarcgap qtr,4a peterJosse C uluBtr '(t002 ''1eta oese4) uortdrosar euoq pesterJur pue '11a4 runras pasearcur ,q uI(uBlrA runJes peJnpal or Sulpeal 'sqluour Jelur,r\ Sulrnp lr{31 m petrurT Jo asnuceqsrsorodoetsoJo >lsrJpesterJur vPeue] puB selEls pe]ruIl eqt uI sepn]rlBl ureqlrou tY "tE tB e^rl or {^,\ esorlJ 'rq8r1uns ol arnsodxe eprq a,leq .{y1ec -rdft suortntnsur JBInurspug seuoq Sursrnu ur Suurq slcaf -qns z(Fapya'uonrppe uI 'C urruElra azrsegtuls uBI tBr{l slleI Ie-/KeI suretuoI lr pue dFaple egl g Jeuurgt sr uDIS oIp esneceg rgSll (,An) lelor^Erlln ol arnsodxe 8ur.tro1o; C[ urrug]r^ Surcnpord ut luerJgJe ssal sr sltnpr rpur Japlo 'rolenbe 3ql ruo{ JBJe^q oq,{ puB spooJ rrar{l Jo UDISeqa ruo{ C urruelrl elur1 urrlqo lyuounuoc oq,,n aldoad llrep uopedpsuo3 uonfuosqe pasearcepurog Suppsar suopejluelB rp lejeuru regro pue uojrjo druarcgeq (Avpfiu 000tlsrr aqt esr?J pue Brruaclec;edz(qacnpur utc uoneluauralddns '(g rerdeq3 aes) paplo,re eq ol speeu C urruulr^ alrsserxg ssejXE 'pueuruojej ol lunorue lccxe arll lnoqe uoDsanb 'luelrodrur sr elelur C urustra alenbapy ilps sl ajer. Ftnq a)lPlul0 u!ruElr^ 'a{elur unrJIBJ pepuauluocer Ietot aqr Suraarqce preaot terp aqt olur perolJuJ dlngarec eJoru eruoceq pFol{s spooj pagruoJ eroJaJar{tispoo; ul pauretuoJ sluernnu Jar1to eW Jo esntJaq uueureyddns uerp umrJIBc apnord ol (1q %0i) 5ur 00[ tnoqu tE sqpru &rep-uou Jo spueJq dueur pue aJrnf e8uero Jo spuurg eruos ot pappe Sureg dpuerrnc sI unIJIBJ 'saprua; lq runrJlec Jo uoBdurnsuoc eql esBaJJulol fe,aaJetfJoue\$ sIqJ urnl]lec spoollo u0r1P3\$ru0j 'uolletueuralddns urnrcpc Jo \$lsrJ pnuarod xofl 'suoncBJelur esra^pe, fipnuerod ssetfl slBB srsq I-'z -u?lsqns ol lnq rsuortEcluels^ PaPeeusr eJuePIAeIEUOpIPPB -rp Jeqto puu 'umrseuSvur'Jvrz Iyqrssod puc uoJr eruequou .srop7sacrua54o3"o3H.mT"""x""i#ffi :"Hi:,ffiT;Tl ulo{ srBC asealau'arueraJsd prBpusls roJ aseqE|ECluerlnN vcsn IbI 0sI 002 v0z ztz 6nz zL7 bL7. Epigenetia c sn dG e n o m iIcm p r i n t i n g Prader-Willi and Angelman's slmdromes can be used to illustrate an additional genetic phenomenon, known as epigenetacs, specifically genomic imprinting. Activities Strength Upper-body strength activities have been shown to improve bone measurements of the femur. Disease 835 Medical Nutrition Therapy for Gardiovascular Endothelial dysfunction initiates atherosclerosis; fortuet al., nately the dysfunction is reversible flales. Gonzales 2004). Some of the factorsthat causeendothelialdysfunction are dyslipidemia (abnormalityin any of the lipoprotein fractions), especially elevated LDLs and decreased high density lipoprotein fractions and decreased high density lipoprotein fractions), especially elevated LDLs and decreased high density lipoprotein fractions are described by the lipoprotein fractions and decreased high density lipoprotein fractions are described by the lipoprotein fractions and decreased high density lipoprotein fractions are described by the lipoprotein fraction fractions are described by the lipoprotein fraction endpoint that canbemodif.ed. bridging the gap between Thte DM: Cultural awareness: patients, Hispanic and caregivers J ContinEducNurs 35(5):213, 2003. (Coarterl Ginny DiNunzio, CRT, Coanlinator, Pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doylestoum, Pa.) FIGURE 35{ While cooking, a client with chronic obstractive pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doylestoum, Pa.) FIGURE 35{ While cooking, a client with chronic obstractive pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doylestoum, Pa.) FIGURE 35{ While cooking, a client with chronic obstractive pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doylestoum, Pa.) FIGURE 35{ While cooking, a client with chronic obstractive pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doylestoum, Pa.) FIGURE 35{ While cooking, a client with chronic obstractive pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doylestoum, Pa.) FIGURE 35{ While cooking, a client with chronic obstractive pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doylestoum, Pa.) FIGURE 35{ While cooking, a client with chronic obstractive pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doylestoum, Pa.) FIGURE 35{ While cooking, a client with chronic obstractive pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doylestoum, Pa.) FIGURE 35{ While cooking, a client with chronic obstractive pulmonary Rebahilitation hogran, Doyh\*oam HoEhal, Doyh\*oam HoE diseasemust consider the proper care and safety of orygen and nasal tubing. Table 36-2 summarizes medical nutrition therapy for ARF. 5 0 8 t definition, 506, 507 for cancer patients, 982-983 for end-stagerenal disease, 945 for premature infanrc, 1 120-112 5 amino acids in, 1122-1123, 1123r electrolltes in, 1124, ll24t energy in, 1122, 1122r fluids in 1120-1122 glucose in, 1122, ll22t lipids in, 1123, ll23t minerals tn, 1124, ll24t trace elements in, 1125, ll25t during hemodialysis therapy, regimen, 946t monitoring, 521-522, 522t p e r i p h e r a l, d e f in i t i o n, 5 0 6 refeeding slmdrome and, 522 - 523 solutions, 518-520 formulations 520t substancesbeing investigated for potential therapeutic effects in, 524b [ansrnon to enteral feeding, 523 to oral feeding, 523 to oral feeding, 523 to oral feeding, 524 to oral feeding, 525 to oral feeding, 526 definition, 1068 parietal cells, 666 definition, 2, 654 stimulation, 7 parietal cell vagotomy, 666 definition, 2000 definition, 200 passive transport, of calcium, 104 patient-focused care (PFC) definition, 425 definition, 427 definition, 428 definition, 428 definition, 428 definition, 428 definition, 428 definition, 429 definition, 429 definition, 429 definition, 429 definition, 429 definition, 420 consequences, Hypponen E and Power C: Hypovitaminosis D in British adults at age45 y: nationwidecohort study of dietary and lifestyle predictors, Am J Clin Nutr 85:860,2007. Nature of Nutritional Testing and Types of Tests Typically laboratory tests are static assays(i.e., the concentration of an analyte is measured in a biologic fluid [e.g., a fasting blood specirnen] at a point in time). Good sources of vitamin D are fortified foods and beverages, and mangarine (check the labels on these foods). Interestingly, boring and monotonous diets can be a strategy for weight management. to caution patients about the use of these supplements (Saperet al., 2004). Health Canada: Eating well with Canada; food guide, @Her Majestythe Queen in Right of Canada, represented by the Minister of Healthy Canada; and D. Hyperkalemia, commonly associated with cyclosporine therapy warrants dietary potassium restriction, although CHAPTER 36 j Medical Nutrition Therapy for the Minister of Healthy Canada; by the Minister of Healthy RenalDisorders 931 this is usually only temporary. Interventions require careful planning by the counselor to be effective. - . Some commonly occurring fatty acids are listed in Table 3-4 with a gpical food source. Patients with normal gastrointestinal function tolerate this method, which takes advantage of normal digestive, hormonal, and bactericidal processes in the stomach. Jatoi A et al: Do patients with nonmetastaticnon-small cell lung cancer demonstrate altered resting energy expenditrre? 928 PART 5 i Medical Nutrition Therapy osteomalacia, whereas children present with polyuria, grou'th retardation, rickets, and vomiting. Adverse events should be reported to the health 482 PART 3 in the stomach. Jatoi A et al: Do patients with nonmetastaticnon-small cell lung cancer demonstrate altered resting energy expenditrre? NutritionCareProcess EvaluatingDietary SupplementUse: The Patient-Health Care Provider Information Exchange Ask. Nutrition Diagnosis: Knowledgedeficit related to WIC eligibility as evidenced by lack of awareness of porential program for assistance fundamental program fundamental program for assistance fundamental program for assi disease. Frequent, small meals may increase comfort, decrease the chance for acid reflux, and stimulate gastric blood flow; but they also may increase net acid output. Individuals WithAdvanced Cancer Receiving Palliative Gare McCallum and Fornari (2006) define palliative care as the active total care of an individual when curative measures are no longer considered an option by either the medical team or the individual. j sp National Institute of Dental and Craniofacial Research http://www.nidcr.nih. PAL, Physical activity level. Obesity rates vary by race and ethnicity in women. TobaccoUse The increasedrisk of C\{D andstrokefrom cigarettesmokins has been recognized for more than 40 y"rrr, \*ith definitiv! evidence presented in several Surgeon General Repors. The tube has one lumen for decompression, and the other lumen is used to feed into the small bowel. Whelton PK et al: Sodium eduction and weight loss in the treatnent of hybertension in older persons; a randomized controlled trial of nonpharmacologic interventions in the elderly (IONE), JAMA 279:839, 1998. McClave SA, Snider HL: Clinical use of gastric residual volumes as a monitor for patients on enteral tube feeding, JPENj Parenter Enteral Natr 26:435, 2002. More concentrated and thus more nutrient-dense formulas are also available. Pur6ed foods from a spoon might be inuoduced at 5 to 6 months of age, finger foods at 7 to 8 months, and the cup at 8 to 9 months, using tJresame timing and progression of texture recommended for typical children. Fluoride ions become incorporated at the surfaces of hydroryapatite crystals; and the size and structure of the bone declines. It has twenty carbons and four double bonds, the first of which is six carbons from the terminal methyl group. Drape towel over patient's chest. Duodenal ulcer is characterized by considerably increased acid secretion, nocturnal acid secretion, and decreased bicarbonate secretion. Nutrition therapy is multipronged, depending on the specific genetic defect. Carbohydrate/lipid content D. Becauseparenterally administered vitamins and trace elements do not go through the digestive and absorptive processes, these recommendations are lower than the DRIs. Parenteral solutions also represent Calculating the Osmolarizy of Tunnel catheter Cephalicvein Axillaryvein Brachialvein Basilic vein FIGURE 20-5 Venoussites from which the suoeriorvena cavamay be accessed. From these advanceswill come diagnostic tess and susceptibility profiles that, coupled with genetic testing and family history analysis, will allow health care professionals to predict those at risk for particular disorders. A small percentage of the magnesium ions are located within bone cells, where they serve as enzyme cofactors, as in all other cells. Although their use appears to be safe, it is unlikely that sugar alcohols in the amounts likely to be in-gestedin individual food servingsor mealswill contribute significant reduction in total energy or improvement in glycemia (ADA, 2007). Some people report gastric discomfort after eating foods sweetenedwith theseproducts' and consuminglargequantitiesmay causediarrhea, especiallyin children. The effect may not be limited to new food items but may also involve foods that were included in the individual's usual diet before treatment. Insert the feeding tubes (SBFB) is an inmouth, adding lubricant as needed. Advance the tube vasive procedure (seefollowing procedure) that requires speto the predetermined length. Lean body mass (LBM) is the part of the body free of adipose tissue and includes the skeletal muscles, water, bone, and a small amount of essential fat in the internal organs, bone marrow, and nerve tissues. LBM is higher in men than in women, increases with exercise, and is lower in older adults. Dentures need to be checked periodically by a dental professional for appropriate fit. Hypoproteinemiacontributes to the devel- the commoncold or flu fall into two groups:coughsuppresopment of pulmonary edema by decreasing colloid ossants and expectorants. Cough suppressantsinclude the motic pressure, which allowsbody fluids ro moveinto the volatile oils of eucalyptusor peppermint. Verify by performing a computerized nutrient analysis. Maintenance meal plans are available 548 PART4 | Nutritaonfor Healthand Fitness are probably a best-casescenario becausemany studies did not control for high attrition rates. A dipocyte consistsof a large central lipid droplet surrounded by a thin rim of cytoplasm, which contains the nucleus and the mitochondria; these cells store fat in quantities equal to 80% to 957" of their volume. The critical question of whether modest weight losses, if maintained, would have a long-term impact remains unanswered. However, as a rule of thumb, blood urea nitrogen (BLIND above100 mgldl and creatinineof 10 to 12 mg/dl are usually quite closeto this threshold. Resveratrol is also being studied; its antioxidant properties may help to prevent neuronal decline with aging (Anekonda, 2006). Currendy the most effective agents for treatment-related (acutQ nauseaand vomiting are the 5-hydroxytryptamine 3 (5-HT) antagonists (i.e., ondansetron, and dolasetron). SeeMetabolic equivalents MetS. Determine the fective agents for treatment-related (acutQ nauseaand vomiting are the 5-hydroxytryptamine 3 (5-HT) antagonists (i.e., ondansetron, and dolasetron). Regardless of which routes of providing nutrition are used, nutritional goals should be specific, achievable, and individualized in scope to encourage cooperation. In older patients an additional reviews recommended to detect "il:!,:i:#;:::\*ri; Malnutrition in Hospitals Butterworth (1974) showed that mall n a landmark article I nutrition could indeed be found in the United States-in hospitals, where it was frequently not recognized. Over the course of the next few years, malnutrition was noted in many hospitalized patients, and attempts were made to evaluate its severity and reverse its course. This transmission can be depicted as a pedigree, which shows the journey of a gene through multiple generations of a family and can be used to predict the probability of a gene being inherited by a particular family member. In the effects on CRP are inconsistent (Rawsonet al., 2003; Verdaet eta1., 2004; Plaisance and Grandjean, 2006). Pipe garnishesaround edgessuch as piping letnrce around the edge of pureed sandwich. rype of nutrition care provided for an individual depends on the presence of :: disease or risk of potential disease, the environment, the stage of growth and development, and socioeconornic issues. It will include an assessment of the factors affecting the adequacy of nutritional intake and the current nutritional starus, and the identification of nutrition diagnoses. Manipulation of the diet, provision of enteral or parenteral support, or interventions that may be selected according to the etiology of the problem. 3 - 3 0 Disorders 7L7 ExocrinePancreas CHAPTER 28 { IVtedical NutritionTherapyfor Liver, Biliary System, and bolic defect (Maher, 200+). A low-copper diet is implemented if other therapiesare unsuccessful (Thble 28-2). If this disease is not diagnosed until onset of fulminant failure, survivalis not possible without transplantation (Kayler et al., 2002). Borugian MJ et al: Insulin, macronutrient intake, and physical activity: are potential indicators of insulin resistance associated with mortality from cancer? In phasefour dietary restrictions are progressively reduced as foods are Phasefive gradually introduced and tolerance associated with mortality from cancer? In phasefour dietary restrictions are progressively reduced as foods are Phasefive gradually introduced and tolerance associated with mortality from cancer? In phasefour dietary restrictions are progressively reduced as foods are Phasefive gradually introduced and tolerance associated with mortality from cancer? In phasefour dietary restrictions are progressively reduced as foods are Phasefive gradually introduced and tolerance associated with mortality from cancer? In phasefour dietary restrictions are progressively reduced as foods are Phasefive gradually introduced and tolerance associated with mortality from cancer? In phasefour dietary restrictions are progressively reduced as foods are Phasefive gradually introduced as foods are phasefive gradually gradual because of an inability to secrete bile or those who have rare disorders of fat metabolism 2. Even more alarming is the increasing ralte(17.1"/") of overweight in children and adolescents. The United States is not alone in terms of these trends; they exist worldwide. The acids produced by their metabolism causes drop in salivarypH to less than 5.5, creating the environment for decay. The change required for statistical significance has been called the critital dffirence. Nevertheless there is considerable evidence in animal and (indirectly) in human models that enteral nutrition preserves mucosal immunity in conditions of critical illness. 2004). (lquro,re; ot sreadde Iueql uae^qaq uopJEJelul e.trlrsod e rnq tealc led lou sr selqErrB^o^\1 eseql uee^rtaq stsrxe uorlJBJelul uB Jaqrell,!\ euolB lunlclEr Jo lElp uetp retear8 aq leur porred tuarudolanap pue qr-vror8 eqr Suunp Wgd oi esrrrexeSuueaq-rg8le, {Jo uonnqlrruoc eqJ'(SOOZ "p re,\$1sae/a 15002"F re surerqy),buarcggnsur urruulr C 'qrr8;o qrrnorS FeqJreueu Jo suoBrpuor JaPun (lprcadsa -rsod, {pre eql ur JoIJE] lecnrr]? PharmacologicManagement of Anorexia-CachexiaSyndrome AppetiteStimulants. A number of antigenic variations occur. Medication without lifestyle modification is lesseffective.

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