Dental Hygienist's Guide to Nutritional Care 6th edition Mallonee Test Bank

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Test Bank - Chapter 01

Q1: Which of the items listed is incorrect regarding designations in the field of nutrition?

A. A nutritionist usually works in a public health setting.
B. A registered dietitian (RD) must pass a national registration examination.
C. An RD who works in public health can call herself a registered dietitian nutritionist (RDN).
D. As of January 2024, a bachelor's degree is required for eligibility to take the national dietetic examination for credentialing. (Correct)

Rationale: Beginning in January 2024, a master's degree is required to be eligible to take the national dietetic examination for credentialing

Q2: Nutrition is the process by which living things use food to obtain nutrients for energy, growth, development and maintenance. Energy is the measure of heat equivalent to 1000 cal needed to do work.

A. Both statements are true.
B. Both statements are false.
C. The first statement is true; the second is false. (Correct)
D. The first statement is false; the second is true.

Rationale: The first statement is true; the second is false. The process by which living things use food to obtain nutrients for energy is nutrition. Energy is the ability or power to do work, whereas a kilocalorie (kcal) is a measure of heat equivalent to 1000 cal. The second statement confuses energy with the definition of a kilocalorie.

Q3: Increase in consumption of which of the following has the greatest effect on an increase in body weight?

A. Carbohydrate intake
B. Protein intake
C. Fat intake
D. Kilocalorie intake (Correct)

Rationale: There is little evidence that any individual food group (carbohydrate, protein, and fat) has a unique effect on body weight. Kilocalories are the key factor to controlling body weight—not the proportions of fat, carbohydrates, and protein, but balancing caloric intake with energy expenditure.

Q4: Which of the answers listed is incorrect regarding weight maintenance?

A. 1600 to 2400 kcal are recommended for adult women.
B. 2000 to 3000 kcal are recommended for adult men.
C. Kilocalories from alcohol do not count because they are expended rapidly. (Correct)
D. A patient needing 2000 kcal/day should limit saturated fat intake to 20 g or less.

Rationale: Like energy-producing nutrients (carbohydrates, proteins, and fats), kilocalories from alcohol must be balanced with energy expenditure. In short, kilocalories from alcohol contribute to weight gain in the same manner as any other substance consumed.

Q5: Dietary guidelines recommend lowering caloric requirements for older adults because metabolic rate increases with age.

A. Both the statement and the reason are correct and related.
B. Both the statement and the reason are correct but are not related.
C. The statement is correct, but the reason is not correct. (Correct)
D. The statement is not correct, but the reason is correct.
E. Neither the statement nor the reason is correct.

Rationale: The statement is correct, but the reason is not correct. Metabolic rate decreases, not increases, with age. For this reason, the caloric requirements are lowered. Failure to lower the caloric intake without an accompanying increase in expenditure of energy will result in weight gain. For older individuals, this can be very serious because joint and cardiac function can be further stressed.

Q6: A kilocalorie is the heat equivalent of how many calories?

A. 10
B. 100
C. 1000 (Correct)
D. 10000

Rationale: 1000 cal are equivalent to 1 kilocalorie (kcal).

Q7: Which nutrient does not provide energy?

A. Proteins
B. Carbohydrates
C. Fats
D. Vitamins (Correct)

Rationale: Vitamins do not provide energy, nor do minerals. Although proteins, carbohydrates, fats, and alcohol provide energy, the body cannot use energy from the energy-containing components of food without adequate amounts of vitamins and minerals.

Q8: Increasing the variety of foods often causes nutrient excesses and toxicities. A dietary change to eliminate or increase intake of one specific food or nutrient usually alters the intake of other nutrients.

A. Both statements are true.
B. Both statements are false.
C. The first statement is true; the second is false.
D. The first statement is false; the second is true. (Correct)

Rationale: The first statement is false; the second is true. Increasing the variety of foods is recommended to reduce the probability of developing isolated nutrient deficiencies, nutrient excesses, and toxicities resulting from nonnutritive components or contaminants in any food. For example, because red meats are an excellent source of iron and zinc, decreasing cholesterol intake by limiting these meats can reduce dietary iron and zinc intake.

Q9: Precursors are substances from which an active substance is formed. Nonessential nutrients cannot be synthesized from other substances.

A. Both statements are true.
B. Both statements are false.
C. The first statement is true; the second is false. (Correct)
D. The first statement is false; the second is true.

Rationale: The first statement is true; the second is false. Nonessential nutrients can be used by the body; they either are not required or can be synthesized from dietary precursors. Carotene is a precursor to vitamin A. It is found in fruits and vegetables and is converted to an active form of vitamin A by the liver.

Q10: Which nutrient is the most important?

A. Protein
B. Carbohydrate
C. Minerals
D. Water (Correct)

Rationale: Water is the most important nutrient. After water, nutrients in highest priority are those that provide energy, which must be provided from foods or can be supplied from quantities stored in the body.

Q11: The human body has adaptive mechanisms that tolerate modest ranges in nutrient intakes. The metabolic rate usually increases to compensate for decreased caloric intake.

A. Both statements are true.
B. Both statements are false.
C. The first statement is true; the second is false. (Correct)
D. The first statement is false; the second is true.

Rationale: The first statement is true; the second is false. The human body adapts to tolerate a modest range of nutrient intake. However, the metabolic rate usually decreases to compensate for decreased caloric intake. This is an adaptive mechanism that "saves" energy for future needs in situations of decreased nutritional intake.

Q12: Healthy People 2030, issued by the U.S. Department of Health and Human Services, has influenced a remarkable reduction in childhood obesity. Since the programs's initiation, the number of children participating in annual dental visits has increased.

A. Both statements are true.

B. Both statements are false. (Correct)

C. The first statement is true; the second is false.

D. The first statement is false; the second is true.

Rationale: Both statements are false. A midcourse progress report for Healthy People 2030 indicates little to no detectable change in rates of childhood obesity. The number of children who have an annual dental visit has declined since the instigation of the program.

Q13: Dietary reference intakes (DRIs) do NOT:

A. replace the older recommended daily allowances.

B. attempt to estimate required nutrients to improve long-term health.

C. specifically address individuals whose requirements are affected by a disease state. (Correct)

D. attempt to establish maximum safe levels of tolerance for nutrients.

Rationale: Dietary reference intakes (DRIs) are inappropriate for malnourished individuals or patients whose requirements are affected by a disease state. DRIs were intended for planning and assessing diets of healthy Americans and Canadians. DRIs replace an earlier publication, the recommended daily allowances (RDAs). Note that there is also a new RDA which is intended as a goal for achieving adequate intakes.

Q14: Which set of guidelines is intended to assess population groups, not individuals?

A. Old recommended dietary allowances (RDAs)

B. Estimated average requirement (EAR) (Correct)

C. New recommended dietary allowances (RDAs)

D. Tolerable upper intake level (UL)

Rationale: The estimated average requirement (EAR) is the amount of a nutrient that is estimated to meet the needs of half of the healthy individuals in a specific age and gender group. This set of values is useful in assessing nutrient adequacy or planning intakes of population groups, not individuals.

Q15: Which is derived from mean nutrient intakes by groups of healthy people, and is the average amount of a nutrient that seems to maintain a defined nutritional state?

A. recommended daily allowance (RDA).

B. estimated average requirement (EAR).

C. adequate intake (AI). (Correct)

D. acceptable macronutrient distribution ranges (AMDRs).

Rationale: An AI was established when inadequate scientific evidence was available to determine an EAR or RDA. Derived from mean nutrient intakes by groups of healthy people and based upon scientific judgments, an AI is the average amount of a nutrient that seems to maintain a defined nutritional state. Values were established for various life stages for several nutrients, including fluoride. AMDRs were established for the macronutrients, fat, carbohydrate, protein, and two polyunsaturated fatty acids, to ensure sufficient intakes of essential nutrients.

Q16: Which is NOT true of the acceptable macronutrient distribution ranges (AMDRs)?

A. AMDRs were established to ensure sufficient intakes of the micronutrients. (Correct)

B. One focus of the AMDRs is reduction of chronic disease.

C. Macronutrients are fat, carbohydrate, protein, and two polyunsaturated fatty acids.

D. Consuming amounts outside the AMDRs increases risk of insufficient intake of essential nutrients.

Rationale: AMDRs were established for the macronutrients, fat carbohydrate, protein, and two polyunsaturated fatty acids, rather than the micronutrients, like vitamins and minerals. The goal of the guideline is to ensure sufficient intake of essential nutrients while reducing risk of chronic disease.

Q17: Acceptable macronutrient distribution ranges (AMDRs) are expressed as a percentage of total energy intake because an intake of each depends on intake of the others or of the total energy requirement of the individual. Increasing or decreasing one energy source while consuming a set amount of kilocalories affects the intake of the other sources of energy.

A. Both the statement and the reason are correct and related. (Correct)

B. Both the statement and the reason are correct but are not related.

C. The statement is correct, but the reason is not correct.

D. The statement is not correct, but the reason is correct.

E. Neither the statement nor the reason is correct.

Rationale: Both the statement and the reason are correct and related. For example, if an individual who routinely consumes 2000 kcal decides to reduce the amount of fat ingested, either the protein or carbohydrate intake would need to increase proportionately.

Q18: Which nutrient-based reference value is defined as dietary energy intake predicted to maintain energy balance in healthy individuals of a defined age, gender, and weight?

A. acceptable macronutrient distribution ranges (AMDRs).

B. estimated energy requirement (EER). (Correct)

C. recommended daily allowance (RDA).

D. estimated average requirement (EAR).

Rationale: The estimated energy requirement (EER) is similar to the EAR. The major difference is that the EAR is the amount of a nutrient that is estimated to meet the needs of half of the healthy individuals in specific groups, whereas the EER addresses all healthy individuals in terms of age, sex, weight, height, and physical activity. Because energy requirement depends on activity level, four different activity levels are provided.

Q19: Which is NOT a valid consideration for a dental hygienist when making dietary recommendations.

A. The dietary reference intakes (DRIs) can be used as an assessment guide for all patients. (Correct)

B. An individual's exact requirement for a specific nutrient is not known.

C. The upper limits (ULs) can be used to warn patients of adverse effects of excessive intake of nutrients.

D. The DRIs are general guidelines and do not provide specific requirements.

E. Specific foods or groups of foods should be discussed rather than nutrients.

Rationale: DRIs are designed as an assessment guide for healthy patients only. These guidelines apply to average daily intakes, and they should be met by consuming a variety of foods whenever possible. Patients with specific illnesses or dietary imbalances should be referred to as registered dietitian.

Q20: The MyPlate food guidance icon is divided into sextants, each of which is a different color to represent a different food type. MyPyramid replaced the well-known MyPlate icon in 2011.

A. Both statements are true.

B. Both statements are false. (Correct)

C. The first statement is true; the second is false.

D. The first statement is false; the second is true.

Rationale: Both statements are false. In 2011, the well-known food guide MyPyramid was replaced with MyPlate. This new food guidance system is divided into four quadrants, not six sextants, to represent a different food type—protein, grain, fruit, and vegetables.

Q21: Which does NOT accurately describe features of MyPlate?

A. MyPlate replaces the well-known food guide, MyPyramid.

B. The interactive website is intended to help consumers apply personalized dietary guidance.

C. MyPlate materials on the website can be printed in English or French. (Correct)

D. Foods providing similar types of nutrients are grouped together and emphasizes proportionality of food selections.

E. MyPlate is designed as a food guidance tool for the general public.

Rationale: MyPlate brochures, tip sheets, graphics, and archived material can be printed from the website in English or Spanish, not French.

Q22: Which message is NOT synonymous with MyPlate?

A. Fruits and vegetables should fill half the plate.

B. Fruit juices should be consumed frequently. (Correct)

C. Lean proteins foods should be chosen in moderation.

D. Whole grains should occupy about one fourth of the plate.

E. Physical activity is encouraged through the Move Your Way: Activity Planner.

Rationale: Although any fruit or 100% fruit juice counts as part of the fruit group, MyPlate suggests that people minimize fruit juice. Because of their fiber content, fresh, frozen, canned, or dried fruits are recommended. Note that MyPlate.gov has links to resources to plan and track daily food goals and plan physical activity.

Q23: Most vegetables are low in calories, but high in water and fiber content. This high water and fiber composition counteracts the low levels of cholesterol present in many dark-green vegetables.

A. Both statements are true.
B. Both statements are false.
C. The first statement is true; the second is false. (Correct)
D. The first statement is false; the second is true.

Rationale: The first statement is true; the second is false. Due to their high water and fiber content, most vegetables are relatively low in calories. Vegetables do not contain cholesterol.

Q24: In the vegetable grouping, which food provides the most protein?

A. Beans (Correct)
B. Red peppers
C. Asparagus
D. Celery

Rationale: Beans are an unusual vegetable because they are in both the vegetable and protein groups. Beans contain protein, fiber, calcium, folic acid, and potassium.

Q25: It is difficult for consumers to identify whole grain products because labeling is inconsistent and food color is a poor indicator.

A. Both the statement and the reason are correct and related. (Correct)
B. Both the statement and the reason are correct but are not related.
C. The statement is correct, but the reason is not correct.
D. The statement is not correct, but the reason is correct.
E. Neither the statement nor the reason is correct.

Rationale: The difficulty in identifying whole grains is a major barrier to consuming adequate amounts of whole grains. Descriptive labels such as "100% wheat," "stone ground," and "multigrain" do not guarantee whole grain. In addition, food color is a poor indicator because molasses or caramel food coloring may be added.

Q26: Which statement is incorrect regarding dietary considerations from the milk and milk product group?

A. Fortified milk products are important sources of vitamin D.
B. Many milk substitutes are not fortified with vitamin D.
C. Children 2 to 3 years of age need 2 cups of milk daily.
D. Whole milk and many cheeses are high in unsaturated fat. (Correct)

Rationale: Whole milk and many cheeses are high in saturated fat and can have negative health consequences. Low-fat or fat-free milk products provide little or no fat and should be chosen most often to avoid consuming more kilocalories than needed.

Q27: The dairy group includes butter and cream because they are high in calcium, riboflavin, and protein.

A. Both the statement and the reason are correct and related.
B. Both the statement and the reason are correct but are not related.
C. The statement is correct, but the reason is not correct.
D. The statement is not correct, but the reason is correct.
E. Neither the statement nor the reason is correct. (Correct)

Rationale: High-fat products such as butter and cream are not included in the dairy products group because they are not high in calcium, riboflavin, and protein.

Q28: Consumption of milk and milk products can promote the achievement of peak bone mass in children and adolescents. Studies indicate that higher dairy consumption is associated with decreased dental caries but has no effect on periodontal disease.

A. Both statements are true.
B. Both statements are false.
C. The first statement is true; the second is false. (Correct)
D. The first statement is false; the second is true.

Rationale: The first statement is true; the second is false. Studies indicate that higher dairy consumption correlates with decreased prevalence and severity of both dental caries and periodontal health.

Q29: Current scientific evidence shows that most people consume only half the required amount of protein. Protein supplements promoted to increase muscle mass contain several amino acids not easily absorbed from foods.

A. Both statements are true.
B. Both statements are false. (Correct)
C. The first statement is true; the second is false.
D. The first statement is false; the second is true.

Rationale: Both statements are false. Most individuals consume adequate amounts (or more) of protein foods. Protein supplements may not contain nutrients important for health other than what foods provide. These should be used only after consulting a health care provider or registered dietitian.

Q30: Which is NOT a macronutrient?

A. Fat
B. Polyunsaturated fatty acids
C. Carbohydrate
D. Protein
E. Vitamins (Correct)

Rationale: Vitamins and minerals are considered micronutrients, not macronutrients. Macronutrients are defined as being the classes of chemical compounds, humans consume in the largest quantities and which provide bulk energy. Conversely, micronutrients are needed by the body in small amounts.

Q31: Magnesium is NOT a principal nutrient in which food group?

A. Vegetable
B. Fruit (Correct)
C. Grain
D. Dairy

Rationale: Magnesium is not a principal nutrient in fruit and meat food groups. Vegetables, whole grains, and dairy are dietary sources of magnesium.

Q32: The process of restoring iron, thiamin, riboflavin, folic acid, and niacin removed during processing to approximately their original levels is called:

A. fortification.
B. enrichment. (Correct)
C. satiety.
D. ghrelin.

Rationale: The process of restoring nutrients removed during processing is called enrichment. This process is controlled by the U.S. Food and Drug Administration (USDA), which establishes the quantity of nutrients that can be added. White bread is an example of a highly enriched product. Fortification is the process of adding nutrients not present in the natural product or increasing the amount above that in the original product. Satiety is the feeling of fullness provided by food. Fats provide more satiety than do lean proteins. Ghrelin is an appetite-stimulating hormone that is suppressed by proteins better than by carbohydrates and lipids.

Q33: The nutrient facts label was established by the USDA and the FDA to improve health and well-being by enhancing nutritional knowledge. Nutrient content claims describe a relationship between a food or food component and reduced risk of a disease or health-related condition.

A. Both statements are true.
B. Both statements are false.
C. The first statement is true; the second is false. (Correct)
D. The first statement is false; the second is true.

Rationale: The first statement is true; the second is false. Two categories of claims currently can be used on food labels: nutrient content claims and health claims. Nutrient content claims describe the percentage of a nutrient in a product relative to the daily value. Health claims describe a relationship between a food or food component and reduced risk of a disease or health-related condition.

Q34: Qualified health claims must be supported by qualified experts because although they are supported by some evidence, they do not meet the scientific standard.

A. Both the statement and the reason are correct and related.

B. Both the statement and the reason are correct, but they are not related.

C. The statement is correct, but the reason is not correct.

D. The statement is not correct, but the reason is correct. (Correct)

E. Neither the statement nor the reason is correct.

Rationale: Health claims on foods are limited and regulated in an effort to protect consumers. Although qualified health claims are supported by some evidence, they do not meet scientific standards. For this reason, qualified claims must be accompanied by a disclaimer as specified by the U.S. Food and Drug Administration (FDA). Such a health claim must use the exact wording specified by the FDA. The other type of health claim, unqualified, must be supported by qualified experts agreeing that a relationship exists between the nutrient and product and a specific disease.

Q35: Unsweetened juices and milk contain significant amounts of sugars because of the natural content of simple carbohydrates.

A. Both the statement and the reason are correct and related. (Correct)

B. Both the statement and the reason are correct, but are not related.

C. The statement is correct, but the reason is not correct.

D. The statement is not correct, but the reason is correct.

E. Neither the statement nor the reason is correct.

Rationale: This is confusing for some patients because both beverages are encouraged in appropriate amounts. Looking at "sugars" on the label can be misleading, whereas the total carbohydrate in the product more closely reflects actual carbohydrate content.

Q36: Which statement regarding obesity is false?

A. The prevalence of obesity is showing signs of leveling off.

B. During the past 20 years, the heaviest body mass index groups have been increasing at the fastest rates.

C. Statistics are more promising for ethnic groups because prevalence is less than in white Americans. (Correct)

D. Hypertension, osteoarthritis, and elevated blood cholesterol accompany obesity.

E. Larger waist measurements are associated with increased health risks.

Rationale: Obesity statistics are discouraging in ethnic groups (Hispanics, African Americans, Native Americans, and Alaska natives) because the prevalence of obesity is markedly higher than in white Americans.

Q37: Which statement regarding body weight in relation to height is incorrect?

A. Currently, the body mass index (BMI) is the preferred method of defining body weight in relation to height.

B. BMI is determined mathematically by first dividing weight by height, dividing this number by height again, and multiplying this number by 703.

C. Chronic disease risk increases in most people with a BMI greater than 25.

D. Major ethnic differences exist regarding BMI.

E. BMI reveals significant details about overall body composition. (Correct)

Rationale: Although BMI is the current preferred method of evaluating weight in relation to height, it has inherent weaknesses as a diagnostic guide. For example, a frail or inactive person with a normal-range BMI can have excess body fat and not appear out of shape. BMI reflects overall fat distribution and is cheap and quick. BMI is not appropriate for pregnant and nursing women, infants, and children younger than age 2 years, nor is it appropriate for some athletes with a large percentage of muscle.

Q38: Which is NOT commonly associated with bariatric surgery?

A. Greater and sustained weight loss than conventional methods

B. Reduced incidence of diabetes

C. Reduced incidence and severity of cardiovascular disease

D. A shorter life span (Correct)

Rationale: This drastic but effective measure typically results in a longer, not shorter, life because of the positive health effects that accompany sustained weight loss in obese patients. Side effects include altered absorption of many nutrients, pulmonary embolism, and some postoperative deaths.

Chapter Quizzes - Chapter 01

Q1: Which of the following foods is considered nutrient dense food?

A. Processed snack foods
B. Sugar-sweetened beverages
C. Leafy green vegetables (Correct)
D. Refined grains

Rationale: Nutrient dense foods provide relatively few calories, but substantial vitamins and minerals, whereas foods low in nutrients generally provide substantial or excessive calories but relatively few vitamins and minerals.

Q2: Which is required for successful weight management?

A. Behavior modifications
B. Regular physical activity
C. Healthy food choices
D. All options are correct. (Correct)
E. No options are correct.

Rationale: A lifetime commitment to changing one's lifestyle with regular physical activity, making healthy food choices, and modifying behavior is required for successful weight management.

Q3: Which chronic diseases are associated with being overweight/obese? I. Hypertension; heart disease II. Osteoarthritis III. Elevated blood cholesterol or triglyceride levels IV. Diabetes V. Sleep apnea and respiratory problems VI. Cancers

A. I, III, V, VI
B. I, II, IV, V, VI
C. I, IV, V, VI
D. I, II, III, IV, V, VI (Correct)
E. II, III, V, VI

Rationale: Scientific studies have shown being overweight/obese contributes to the development of ALL these diseases, reducing the quality of life and affecting life expectancy.

Q4: Food labels cannot include either an explicit or implied nutrient content claim unless it uses specific terms defined by the FDA. Which best describes the purpose of this requirement?

A. Protecting consumers from false or misleading claims (Correct)
B. Further confusing uneducated consumers
C. Making heart-healthy shopping easier
D. Reducing overall profits for food companies

Rationale: Health claims on food labels are required to follow strict terms/definitions developed by the FDA to protect the public from false or misleading claims.

Q5: In the United States, which nutritional information must be included on food labels?

A. nutrient content claims.
B. health claims.
C. both nutrient and health claims. (Correct)
D. neither nutrient nor health claims.

Rationale: Two categories of claims are currently used in nutritional labeling in the United States—nutrient content claims and health claims. Nutrient content claims describe the percentage of a nutrient in a product relative to the daily value, while health claims describe a relationship between a food or food component and reduced risk of a disease or health-related condition.

Q6: Which best conveys the main message(s) of the MyPlate icon?

A. Balance in food choices
B. Consuming a variety of foods
C. Certain foods should be consumed in moderation
D. Adequate nutrient consumption
E. All options are correct. (Correct)
F. No options are correct.

Rationale: The MyPlate icon is designed for conveying the message of balance, variety, moderation, and consumption of adequate nutrients. The graphic representation for consumption of fruits, vegetables, grains, meat, and dairy is proportional for the amounts that should be consumed in a meal.

Q7: Which is the preferred method of defining healthy weight in the United States?

A. Height/weight tables
B. Height/weight ratios
C. Body Mass Index (BMI) (Correct)

Rationale: The currently preferred method of defining healthy weight is the Body Mass Index (BMI). Height/weight tables are no longer considered to be an accurate measure of healthy weight.

Q8: Which maximum Body Mass Index (BMI) is considered a healthy weight?

A. 24. (Correct)
B. 30.
C. 35.

Rationale: A BMI of less than 25 is generally considered the upper limit of healthy weight, as chronic disease risk increases in most people above this level. BMI of 30 or higher is considered overweight, and a BMI of 35 or higher is considered obese.