

Chapter 01: Nutrition and Health

Schlenker & Gilbert: Williams' Essentials of Nutrition and Diet Therapy, 11th Edition

MULTIPLE CHOICE

1. The major focus of nutritional recommendations in this century has shifted to:
 - a. prevention and control of chronic diseases.
 - b. improved sanitation and public health.
 - c. prevention and control of infectious diseases.
 - d. development of healthful foods using food technology.

ANS: A DIF: Easy REF: p. 2

MSC: Type of Question: Knowledge

2. A physical science that contributes to understanding how nutrition relates to health and well-being is:
 - a. anatomy.
 - b. biochemistry.
 - c. physics.
 - d. pharmacology.

ANS: B DIF: Easy REF: p. 6

MSC: Type of Question: Knowledge

3. The body of scientific knowledge related to nutritional requirements of human growth, maintenance, activity, and reproduction is known as:
 - a. physiology.
 - b. nutrition science.
 - c. biochemistry.
 - d. dietetics.

ANS: B DIF: Easy REF: p. 7

MSC: Type of Question: Knowledge

4. The professional primarily responsible for application of nutrition science in clinical practice settings is the:
 - a. nurse.
 - b. physician.
 - c. public health nutritionist.
 - d. registered dietitian.

ANS: D DIF: Easy REF: p. 7

MSC: Type of Question: Knowledge

5. The primary responsibility for nutrition care of people in the community belongs to the:
 - a. community physician.
 - b. public health nurse.
 - c. public health nutritionist.
 - d. registered dietitian.

ANS: C DIF: Easy REF: p. 7

MSC: Type of Question: Knowledge

6. The best source of nutrients is provided by:
- specific food combinations.
 - a variety of foods.
 - individual foods.
 - a variety of food supplements.

ANS: B DIF: Easy REF: p. 7
MSC: Type of Question: Knowledge

7. Macronutrients include:
- minerals.
 - proteins.
 - vitamins.
 - enzymes.

ANS: B DIF: Easy REF: p. 7
MSC: Type of Question: Knowledge

8. Micronutrients include:
- fats.
 - proteins.
 - vitamins.
 - carbohydrates.

ANS: C DIF: Easy REF: p. 7
MSC: Type of Question: Knowledge

9. The sum of all chemical processes inside living cells of the body that sustain life and health is known as:
- physiology.
 - digestion.
 - metabolism.
 - nutrition.

ANS: C DIF: Easy REF: p. 7
MSC: Type of Question: Knowledge

10. A primary function of macronutrients in the body is to:
- supply energy.
 - regulate metabolic processes.
 - maintain homeostasis.
 - control cellular activity.

ANS: A DIF: Medium REF: p. 7
MSC: Type of Question: Knowledge

11. Nutrients interact in the body to regulate metabolic processes, to build and repair tissue, and to:
- provide energy.
 - control cellular wastes.
 - control hormone levels.

d. regulate absorption.

ANS: A DIF: Medium REF: p. 7
MSC: Type of Question: Knowledge

12. Individual nutrients are characterized by their ability to:
- a. work alone.
 - b. fulfill specific metabolic roles.
 - c. influence weight loss.
 - d. improve mental status.

ANS: B DIF: Medium REF: p. 7
MSC: Type of Question: Knowledge

13. The nutrient group that provides the primary source of energy for the body is:
- a. carbohydrates.
 - b. fats.
 - c. proteins.
 - d. vitamins.

ANS: A DIF: Medium REF: p. 7
MSC: Type of Question: Knowledge

14. The primary function of carbohydrates as a food source is to:
- a. regulate metabolic processes.
 - b. build body tissue.
 - c. supply energy.
 - d. provide bulk.

ANS: C DIF: Easy REF: p. 7
MSC: Type of Question: Knowledge

15. The main body storage form of carbohydrates is:
- a. glycogen.
 - b. starch.
 - c. fat.
 - d. glucose.

ANS: A DIF: Medium REF: p. 7
MSC: Type of Question: Knowledge

16. The number of kilocalories (kcalories or kcal) provided by a food that contains 30 g of carbohydrate is:
- a. 90.
 - b. 120.
 - c. 180.
 - d. 270.

ANS: B
Carbohydrate contains 4 kcal per gram; therefore, 30 g carbohydrate contains $30 \times 4 = 120$ kcal.

DIF: Medium REF: p. 7 MSC: Type of Question: Application

17. The percentage of the total daily caloric intake for healthy persons that should be supplied by carbohydrate is:
- 10% to 35%.
 - 20% to 35%.
 - 40% to 55%.
 - 45% to 65%.

ANS: D DIF: Medium REF: p. 7
MSC: Type of Question: Knowledge

18. It has been generally accepted that the percentage of total daily kcalories supplied by fats should be no more than:
- 10% to 15%.
 - 10% to 35%.
 - 20% to 35%.
 - 40% to 55%.

ANS: C DIF: Medium REF: p. 7
MSC: Type of Question: Knowledge

19. The number of kcalories provided by a food that contains 22 g of fat is:
- 88.
 - 132.
 - 154.
 - 198.

ANS: D
Fat contains 9 kcal per gram; therefore, the number of kcal in 22 g of fat is $22 \times 9 = 198$ kcal.

DIF: Medium REF: p. 7 MSC: Type of Question: Application

20. The primary function of protein in the body is to:
- supply energy.
 - regulate metabolic processes.
 - control muscle contractions.
 - build tissue.

ANS: D DIF: Easy REF: p. 7
MSC: Type of Question: Knowledge

21. The number of kcalories provided by 15 g of protein is:
- 15.
 - 45.
 - 60.
 - 135.

ANS: C
Protein contains 4 kcal per gram; therefore, the number of kcal in 15 g protein is $15 \times 4 = 60$ kcal.

DIF: Medium REF: p. 7 MSC: Type of Question: Application

22. For a healthy person, the percentage of daily kcalories supplied by protein should be:
- a. 5% to 10%.
 - b. 10% to 35%.
 - c. more than 25%.
 - d. more than 35%.

ANS: B DIF: Easy REF: p. 7
MSC: Type of Question: Knowledge

23. In addition to protein, nutrients that contribute to building and repair of tissue include:
- a. vitamins.
 - b. carbohydrates.
 - c. fats.
 - d. enzymes.

ANS: A DIF: Easy REF: p. 8
MSC: Type of Question: Knowledge

24. The types of acids that form the basic building blocks of protein are ____ acids.
- a. fatty
 - b. amino
 - c. nucleic
 - d. omega fatty

ANS: B DIF: Easy REF: p. 7
MSC: Type of Question: Knowledge

25. In addition to calcium, the major minerals needed to build and maintain bone tissue include:
- a. potassium.
 - b. iron.
 - c. phosphorus.
 - d. fluoride.

ANS: C DIF: Medium REF: p. 7
MSC: Type of Question: Knowledge

26. The mineral that helps control enzyme actions in cell mitochondria that produce and store high-energy compounds is:
- a. iron.
 - b. cobalt.
 - c. hemoglobin.
 - d. vitamin B₁₂.

ANS: A DIF: Hard REF: p. 8
MSC: Type of Question: Knowledge

27. The nutrients involved in metabolic regulation and control include minerals, vitamins, and:
- a. amino acids.
 - b. carbohydrates.
 - c. fats.
 - d. water.

ANS: D DIF: Hard REF: p. 8
MSC: Type of Question: Knowledge

28. An observation that provides evidence that a person has good nutritional status is:
- a. small muscle mass.
 - b. normal weight-to-height ratio.
 - c. smooth tongue.
 - d. fragile skin.

ANS: B DIF: Easy REF: p. 9
MSC: Type of Question: Knowledge

29. Individuals with optimal nutritional status differ from those with marginal nutritional status in their:
- a. nutrient reserves.
 - b. clinical signs.
 - c. body weight.
 - d. risk for mental illness.

ANS: A DIF: Medium REF: p. 9
MSC: Type of Question: Knowledge

30. In addition to poor eating habits, a factor that often contributes to marginal nutritional status is:
- a. dependence on caffeine.
 - b. acute illness.
 - c. low income.
 - d. size of family unit.

ANS: C DIF: Easy REF: p. 9
MSC: Type of Question: Knowledge

31. Signs of malnutrition can appear when:
- a. nutrient reserves are depleted.
 - b. nutrient intake exceeds daily needs.
 - c. energy intake is restricted.
 - d. caloric expenditure increases.

ANS: A DIF: Medium REF: p. 10
MSC: Type of Question: Knowledge

32. An age group that is very vulnerable to malnutrition is:
- a. infants.
 - b. teenagers.
 - c. young adults.
 - d. middle-age adults.

ANS: A DIF: Medium REF: p. 10
MSC: Type of Question: Knowledge

33. The function of Dietary Reference Intakes (DRIs) is to designate nutrient recommendations for:
- a. different ethnic groups.

- b. all individuals.
- c. most people.
- d. most healthy people.

ANS: D DIF: Medium REF: p. 12
MSC: Type of Question: Knowledge

34. The Tolerable Upper Intake Level (UL) is:
- a. a replacement for Recommended Dietary Allowances (RDAs).
 - b. a safe level of intake for people of all ages.
 - c. a potentially toxic level of intake of a nutrient.
 - d. the highest amount of a nutrient that can be safely consumed.

ANS: D DIF: Medium REF: p. 12
MSC: Type of Question: Knowledge

35. An example of government nutrition policy is:
- a. MyPlate Food Guidance System.
 - b. *Dietary Guidelines for Americans 2010*.
 - c. *Healthy People 2020*.
 - d. Dietary Reference Intakes (DRIs).

ANS: C DIF: Medium REF: p. 11
MSC: Type of Question: Knowledge

36. MyPlate food guidance is based on:
- a. percentage of kcalories from each macronutrient.
 - b. *Exchange Lists for Meal Planning*.
 - c. appropriate amounts of food from each food group.
 - d. amounts of macronutrients and micronutrients.

ANS: C DIF: Medium REF: pp. 16-19
MSC: Type of Question: Knowledge

37. Foodborne illness may be caused by contamination of food with:
- a. pesticides.
 - b. genetically modified ingredients.
 - c. microorganisms.
 - d. food additives.

ANS: C DIF: Medium REF: p. 20
MSC: Type of Question: Knowledge

38. It is important to understand standard serving sizes of foods because:
- a. it is easy to eat too much of some nutrients when choosing healthful foods.
 - b. serving sizes have generally decreased over the past few decades.
 - c. most people have difficulty estimating the amount of food they eat.
 - d. food portions need to be weighed to check serving sizes accurately.

ANS: C DIF: Hard REF: p. 16
MSC: Type of Question: Application

39. Major nutrients supplied by foods in the Vegetables group of MyPlate include:

- a. potassium and vitamin A.
- b. iron and vitamin C.
- c. calcium and vitamin B₁₂.
- d. sodium and vitamin E.

ANS: A DIF: Hard REF: p. 17
MSC: Type of Question: Knowledge

40. A food choice equivalent to one serving from the Grains group of MyPlate is:
- a. one slice of bread.
 - b. 2 cups of rice.
 - c. 3 cups of spaghetti.
 - d. 4 oz of ready-to-eat cereal.

ANS: A DIF: Medium REF: p. 17
MSC: Type of Question: Knowledge

41. A food choice equivalent to one serving from the Protein group of MyPlate is:
- a. 1 Tbsp peanut butter.
 - b. 3 oz fish.
 - c. 2 oz cheese.
 - d. $\frac{1}{2}$ cup cooked dry beans or peas.

ANS: A DIF: Hard REF: p. 17
MSC: Type of Question: Knowledge

42. *Exchange Lists for Meal Planning* was devised by the American Dietetic Association in collaboration with:
- a. the American Cancer Society.
 - b. the American Diabetes Association.
 - c. the American Heart Association.
 - d. the Culinary Institute of America.

ANS: B DIF: Easy REF: pp. 19-20
MSC: Type of Question: Knowledge

43. *Exchange Lists for Meal Planning* groups foods that are equivalent in their:
- a. weight.
 - b. serving size.
 - c. micronutrient content.
 - d. macronutrient content.

ANS: D DIF: Medium REF: p. 19
MSC: Type of Question: Knowledge

44. *Exchange Lists for Meal Planning* was originally intended as a meal-planning tool for people who have:
- a. cancer.
 - b. diabetes.
 - c. hypertension.
 - d. heart disease.

ANS: B DIF: Easy REF: p. 19

MSC: Type of Question: Knowledge

45. In the most recent edition of *Choose Your Foods: Exchange List for Diabetes*, the three groups into which foods are arranged are:
- fruits and vegetables, breads, and meats.
 - fats, starches and sugars, and meat and milk.
 - fruits and vegetables, meat and milk, and starches.
 - carbohydrates, meat and meat substitutes, and fats.

ANS: D DIF: Medium REF: p. 20

MSC: Type of Question: Knowledge

46. The Dietary Guidelines are published and revised by the U.S. Department of Agriculture in association with the:
- Department of Health and Human Services.
 - National Institutes of Health.
 - National Academy of Sciences.
 - Food and Nutrition Board.

ANS: A DIF: Medium REF: p. 13

MSC: Type of Question: Knowledge

47. A major focus of the 2010 Dietary Guidelines is:
- generally healthy segments of the population.
 - the unhealthy American public.
 - vulnerable population segments.
 - ethnically diverse eating styles.

ANS: B DIF: Medium REF: pp. 13-14

MSC: Type of Question: Knowledge

48. Dietary guidelines are most useful for:
- limiting portion sizes.
 - designing a personal food plan.
 - making smart food choices.
 - avoiding excessive nutrient intakes.

ANS: C

Dietary guidelines include recommendations to limit portion sizes and provide general advice that can help with designing a personal food plan, and can help consumers avoid excessive nutrient intakes. However, their main use is to help consumers make wise food choices.

DIF: Medium REF: p. 13 MSC: Type of Question: Application

49. One useful outcome of keeping a record of everything you eat and drink for a day is:
- precise estimates of portion sizes.
 - determination of appropriate energy intake.
 - estimation of supplement needs.
 - increased awareness of personal food patterns.

ANS: D DIF: Medium REF: p. 20

MSC: Type of Question: Knowledge