

***Lutzs Nutrition and Diet Therapy 8th edition Mazur  
Test Bank***

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## Chapter 2. Carbohydrates

### Multiple Choice

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_ 1. A nurse is leading a seminar with middle school students called “Overeating: How to Prevent Negative Effects on the Body.” Which statement indicates that teaching has been successful?
  - 1. “Glucose is converted into dextrose by the body.”
  - 2. “My monosaccharide level is 8E. That’s normal!”
  - 3. “Fructose is the sweetest of all polysaccharides.”
  - 4. “Milk sugar is made from maltose and glucose.”
  
- \_\_\_\_ 2. The nurse knows that the disaccharide maltose is found in which of the following foods?
  - 1. Infant formulas
  - 2. Maple syrup
  - 3. Milk products
  - 4. Unaged cheese
  
- \_\_\_\_ 3. The nurse is caring for a client diagnosed with morbid obesity. Which carbohydrate most likely contributed to the client’s obesity?
  - 1. Glucose
  - 2. Galactose
  - 3. Fructose
  - 4. Sucrose
  
- \_\_\_\_ 4. What are the recommendations of the 2015–2020 Dietary Guidelines for Americans?
  - 1. Reduce overall calories consumed from added sugars.
  - 2. Reduce intake of vegetables and fruits to lower risk of disease.
  - 3. Increase consumption of whole grains to lower risk of cancer.
  - 4. Increase consumption of protein to decrease chronic disease.
  
- \_\_\_\_ 5. Which statement made by a pregnant client about food is concerning to the nurse?
  - 1. “I eat 1 slice of bread, 1 apple, and a cup of milk for breakfast.”
  - 2. “I eat 2 cups of cereal with sugar, 2 bananas, and 2 cups of milk every morning.”
  - 3. “I ate a piece of salmon, a cup of blueberries, and a cup of carrots for lunch today.”
  - 4. “I’m eating for two now, so I had a  $\frac{1}{2}$  cup of kidney beans and a cup of milk.”
  
- \_\_\_\_ 6. In order to make suitable recommendations about carbohydrate intake, which diagnostic criteria during assessment would show the client needs to speak with a registered dietitian?
  - 1. Elevated ketones in urine sample
  - 2. A capillary blood sugar of 75
  - 3. A food diary and interview
  - 4. A body mass index (BMI) of 20
  
- \_\_\_\_ 7. The nurse is teaching a class about nutrition. Which statement by the students about dietary fiber is correct?
  - 1. “I am so hungry after I eat fiber!”

2. "I should decrease my fiber intake."
  3. "I eat enough fiber: 10 grams a day."
  4. "I feel full when I eat salad."
- \_\_\_\_\_ 8. A nurse is caring for a client admitted to the emergency department (ED). When the nurse learns that the client has been consuming too much fiber, which diagnosis does the nurse suspect?
1. Diabetes
  2. Osteoporosis
  3. Crohn disease
  4. Gastrointestinal (GI) bleeding
- \_\_\_\_\_ 9. Which statement made by a nurse is true regarding the formation of dental caries?
1. We cannot control the length of time carbohydrate-containing foods are exposed to our teeth.
  2. Dental caries are caused by bacteria not normally present in the mouth.
  3. Some people are more predisposed to developing dental caries than others.
  4. Consuming aged cheese may encourage tooth decay.

**Multiple Response**

*Identify one or more choices that best complete the statement or answer the question.*

- \_\_\_\_\_ 10. A nurse is caring for a pediatric client diagnosed with morbid obesity. When teaching the client about a new diet, which functions of carbohydrates will aid in weight loss? *Select all that apply.*
1. Providing an adequate supply of carbohydrates versus protein
  2. Providing a low carbohydrate or ketogenic diet
  3. Providing a regular breakfast high in fiber, total carbs, and low fat
  4. Providing a smaller breakfast high in carbohydrates and sugars
  5. Providing a diet composed of 45% to 65% carbohydrates
- \_\_\_\_\_ 11. When discharging a 15-month-old pediatric client who had gastritis, a nurse tells the parents that dental caries result from the interaction between which of the following factors? *Select all that apply.*
1. Genetically susceptible tooth
  2. Bacteria
  3. Carbohydrates
  4. Time
  5. Inflammation
- \_\_\_\_\_ 12. Which are ways to counteract the effects of dental cavity formation? *Select all that apply.*
1. Eating cheese
  2. Chewing fibrous foods
  3. Using maltose
  4. Eating fiber
  5. Eliminating bacteria
- \_\_\_\_\_ 13. A nurse knows that teaching is successful when the client learning about food groups states which of the following? *Select all that apply.*

1. "In order to receive 15 grams of carbohydrates from grains, I can eat a baked potato."
  2. "One cup of soy milk contains no carbohydrates; only cow's milk has carbohydrates because of lactose."
  3. "One serving of beans is significant for protein and has 15 grams of carbohydrate."
  4. "Plant-based foods do not have significant sources of minerals, just fiber."
  5. "A  $\frac{1}{2}$  cup of unsweetened applesauce has fiber and about 15 grams of carbohydrate."
- \_\_\_\_\_ 14. Based on the Food and Nutrition Board of the National Academy of Sciences, Institute of Medicine (2005), which carbohydrate (CHO) recommended dietary allowance (RDA) would the nurse manager follow for pregnant and/or breastfeeding mothers? *Select all that apply.*
1. RDA of 175 grams of CHO
  2. 10% of sugars for total calories eaten
  3. 45% to 65% of calories from CHO
  4. RDA of 130 grams of CHO per day
  5. RDA of 210 grams of CHO per day
- \_\_\_\_\_ 15. A nurse is teaching a group of clients about the RDA for CHO. For which group of clients is 130 grams of CHO recommended? *Select all that apply.*
1. A 2-year-old
  2. A 45-year-old
  3. A 15-month-old
  4. A 76-year-old
  5. A 65-year-old
- \_\_\_\_\_ 16. Which signs are some of the undesirable consequences of ketosis? *Select all that apply.*
1. Fatigue
  2. Nausea
  3. Lack of appetite
  4. Weight gain
  5. High blood sugar
- \_\_\_\_\_ 17. A nurse is reviewing the urine of a 45-year-old client with ketosis. What does the nurse expect to see in the client's urine? *Select all that apply.*
1. Acetone
  2. Diacetic acid
  3. Glucose
  4. Fiber
  5. Cholesterol
- \_\_\_\_\_ 18. Which is an accurate characteristic of sugar alcohols? *Select all that apply.*
1. They do not promote tooth decay.
  2. They have a cooling effect on the tongue.
  3. They have a laxative effect.
  4. They are 200 times as sweet as sugar.
  5. They add only sweetness to recipes.

- \_\_\_\_ 19. Which types of complex carbohydrates are of nutritional importance? *Select all that apply.*
1. Starch
  2. Glycogen
  3. Fiber
  4. Sucrose
  5. Galactose
- \_\_\_\_ 20. Diets high in fats and sugars are found to cause which type of neurological problems? *Select all that apply.*
1. Cognition impairment
  2. Mood impairment
  3. Appetite dysregulation
  4. Memory deterioration
  5. Brain fatigue

## Chapter 2. Carbohydrates

### Answer Section

#### MULTIPLE CHOICE

1. ANS: 2

Chapter: Chapter 2, Carbohydrates

Objective: 1 Describe the types of carbohydrates, identify food sources of each, and indicate their functions in the body.

Page: 24

Heading: Basic Terminology

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Nutrition

Difficulty: Moderate

|   | Feedback                                                                                                                                                                |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | This is incorrect. Another name for glucose is dextrose (abbreviated D).                                                                                                |
| 2 | This is correct. The monosaccharide glucose in the body is commonly called blood sugar. Normal fasting blood sugar (FBS) is 70 to 100 mg per 100 mL of serum or plasma. |
| 3 | This is incorrect. Fructose is found in fruits and honey. It is the sweetest of all the monosaccharides.                                                                |
| 4 | This is incorrect. The two monosaccharides that make up lactose are glucose and galactose.                                                                              |

PTS: 1

CON: Nutrition

2. ANS: 1

Chapter: Chapter 2, Carbohydrates

Objective: 1. Describe the types of carbohydrates, identify food sources of each, and indicate their functions in the body.

Page: 26

Heading: Composition of Carbohydrates

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Comprehension

Concept: Nutrition

Difficulty: Moderate

|   | Feedback                                                                                                                                                                                                      |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | This is correct. Disaccharide maltose is produced when the body breaks down starch. Smaller amounts of this disaccharide are present in malt, malt products, beer, some infant formulas, and sprouting seeds. |
| 2 | This is incorrect. Sucrose is found in molasses, maple syrup, fruits, and vegetables.                                                                                                                         |

|   |                                                                                                        |
|---|--------------------------------------------------------------------------------------------------------|
| 3 | This is incorrect. Lactose occurs naturally only in milk. It is commonly referred to as milk sugar.    |
| 4 | This is incorrect. Yogurt and unaged cheese may contain free galactose. Galactose is a monosaccharide. |

PTS: 1 CON: Nutrition

3. ANS: 3

Chapter: Chapter 2, Carbohydrates

Objective: 1. Describe the types of carbohydrates, identify food sources of each, and indicate their functions in the body.

Page: 25

Heading: Composition of Carbohydrates

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Evidence-Based Practice

Difficulty: Moderate

|   | Feedback                                                                                                                                                                                                                                                                            |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | This is incorrect. The monosaccharide glucose in the body is commonly called blood sugar. It is the major form of sugar in the blood.                                                                                                                                               |
| 2 | This is incorrect. Galactose is the least sweet of all the monosaccharides.                                                                                                                                                                                                         |
| 3 | This is correct. High fructose corn syrup (HFCS) has been used as a sweetener by the food industry because it is a cheaper sweetener for beverages than sugar. The increased calories from sweetened beverages may contribute to the incidence of overweight and obese individuals. |
| 4 | This is incorrect. Sucrose is found in molasses, maple syrup, fruits, and vegetables.                                                                                                                                                                                               |

PTS: 1 CON: Evidence-Based Practice

4. ANS: 1

Chapter: Chapter 2, Carbohydrates

Objective: 2. List the major functions of carbohydrates and methods through which the body stores them.

Page: 29

Heading: Health and Carbohydrates

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Remembering

Concept: Nutrition

Difficulty: Moderate

|   | Feedback                                                                                                                    |
|---|-----------------------------------------------------------------------------------------------------------------------------|
| 1 | This is correct. The 2015–2020 Dietary Guidelines for Americans recommend reducing the calories consumed from added sugars. |

|   |                                                                                                                                                                                                                        |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | This is incorrect. Epidemiological data support the association between a high intake of vegetables and fruits and low risk of chronic disease.                                                                        |
| 3 | This is incorrect. Studies have linked regular consumption of whole grains with a lower risk of certain cancers and heart disease, but this is not a recommendation of the 2015–2020 Dietary Guidelines for Americans. |
| 4 | This is incorrect. Increasing the amount of protein found in fruits and vegetables may lower certain risks of disease, but just increasing protein is not recommended.                                                 |

PTS: 1 CON: Nutrition

5. ANS: 2

Chapter: Chapter 2, Carbohydrates

Objective: 2. List the major functions of carbohydrates and methods through which the body stores them.

Page: 32

Heading: Food Groups

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Nutrition

Difficulty: Moderate

|   | Feedback                                                                                                                                                                                                                                                            |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | This is incorrect. This statement is within the client's RDA of 175 grams of CHO, as only 42 grams were consumed with breakfast.                                                                                                                                    |
| 2 | This is correct. This statement conveys a misunderstanding of the recommended daily allowance. This client had ~115 grams of CHO for breakfast and the RDA for pregnant clients is 175 grams; she will be over the RDA once she eats lunch, dinner, and any snacks. |
| 3 | This is incorrect. This statement indicates the client only had 35 grams of CHO with lunch; the client can have an RDA of 175 grams of CHO.                                                                                                                         |
| 4 | This is incorrect. This statement indicates that the client had 30 grams of CHO. She can have a total of 175 grams as per the RDA.                                                                                                                                  |

PTS: 1 CON: Nutrition

6. ANS: 1

Chapter: Chapter 2, Carbohydrates

Objective: 2. List the major functions of carbohydrates and methods through which the body stores them.

Page: 29

Heading: Functions of Carbohydrates: Help Prevent Ketosis

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Metabolism

Difficulty: Moderate

|   | Feedback                                                                                                                                                                                                                                                                               |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | This is correct. The client is not taking in enough carbohydrates for energy, and the body is breaking down stored fats. The body cannot handle the excessive breakdown of stored fat. Therefore, partially broken-down fats accumulate in the blood and urine in the form of ketones. |
| 2 | This is incorrect. Normal FBS is 70 to 100 mg per 100 mL of serum or plasma.                                                                                                                                                                                                           |
| 3 | This is incorrect. This information is subjective only and is not suitable as the sole criterion to determine CHO status and intake.                                                                                                                                                   |
| 4 | This is incorrect. A BMI of 18.5 to 24.9 is considered normal.                                                                                                                                                                                                                         |

PTS: 1 CON: Metabolism

7. ANS: 4

Chapter: Chapter 2, Carbohydrates

Objective: 3. Discuss dietary fiber and list its functions.

Page: 28

Heading: Basic Terminology: Dietary Fiber

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Nutrition

Difficulty: Moderate

|   | Feedback                                                                                                                                                                                         |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | This is incorrect. Bulk fills the stomach and most experts believe a full stomach contributes to a feeling of satiety, so further eating ceases.                                                 |
| 2 | This is incorrect. The 2015–2020 Dietary Guidelines for Americans recommend that at least half of the grains consumed are whole grains, to help attain the goal of increasing fiber in the diet. |
| 3 | This is incorrect. The recommended daily adequate intake (AI) for fiber is based on 14 grams of fiber per 1,000 kilocalories consumed.                                                           |
| 4 | This is correct. Fiber adds almost no fuel or energy value to the diet, but it does add volume; a full stomach contributes to a feeling of satiety.                                              |

PTS: 1 CON: Nutrition

8. ANS: 2

Chapter: Chapter 2, Carbohydrates

Objective: 3. Discuss dietary fiber and list its functions.

Page: 28

Heading: Basic Terminology: Dietary Fiber

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Metabolism

Difficulty: Moderate

|   | Feedback                                                                                                                                                                                |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | This is incorrect. Diabetes mellitus does not occur because of eating too much fiber.                                                                                                   |
| 2 | This is correct. Evidence suggests that eating more than 50 grams of fiber per day can interfere with mineral absorption, which can lead to conditions such as anemia and osteoporosis. |
| 3 | This is incorrect. Crohn disease does not result from eating too much fiber.                                                                                                            |
| 4 | This is incorrect. Too much fiber per day can interfere with mineral absorption, but it does not cause GI bleeding.                                                                     |

PTS: 1 CON: Metabolism

9. ANS: 3

Chapter: Chapter 2, Carbohydrates

Objective: 4. Describe the relationship between carbohydrates and dental health.

Page: 30

Heading: Genomic Gem 2-1

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Nutrition

Difficulty: Evidence-Based Practice

|   | Feedback                                                                                                                                                                                                                                                             |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | This is incorrect. We can control the amount of time certain carbohydrate-containing foods and sugar-containing foods remain in the mouth. For example, sticky foods, such as raisins and caramels, adhere to the tooth for longer periods of time than other foods. |
| 2 | This is incorrect. Dental caries are caused by bacteria that are always present in our mouths.                                                                                                                                                                       |
| 3 | This is correct. Genetic susceptibility is an individual's likelihood of developing a given trait. Some individuals may be more genetically predisposed to forming dental caries than others.                                                                        |
| 4 | This is incorrect. Aged cheese, such as cheddar, Swiss, and gouda, as well as American cheese, may work to inhibit tooth decay by helping stimulate the production of saliva.                                                                                        |

PTS: 1 CON: Evidence-Based Practice

## MULTIPLE RESPONSE

10. ANS: 1, 3, 5

Chapter: Chapter 2, Carbohydrates

Objective: 2. List the major functions of carbohydrates and methods through which the body stores them.

Page: 28

Heading: Functions of Carbohydrates: Provide Fuel

Integrated Processes: Teaching and Learning  
 Client Need: Health Promotion and Maintenance  
 Cognitive Level: Application  
 Concept: Nutrition  
 Difficulty: Moderate

|    | Feedback                                                                                                                                                                                                                                                                                                          |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | This is correct. An adequate supply of dietary carbohydrates spares body protein stores from being partially converted into glucose and allows protein to be used for growth and repair of body tissue.                                                                                                           |
| 2. | This is incorrect. Fatigue, nausea, and lack of appetite are some of the undesirable consequences of ketosis. A very low carbohydrate diet, which is ketogenic, is defined as 20 to 50 grams per day. The American Diabetes Association (ADA) recommends 130 grams of carbohydrate per day as the minimum intake. |
| 3. | This is correct. Glucose enhances learning and memory in humans throughout the life cycle. Children who eat breakfast have a higher intake of fiber, total carbohydrate, and lower fat and cholesterol. Those who ate breakfast were also found more likely to have a normal BMI.                                 |
| 4. | This is incorrect. Although children who eat breakfast tend to have a normal BMI, diets high in fats and sugars have been found to cause impairment of cognition and dysregulation of appetite control. This dysregulation may lead to a vicious cycle that leads to obesity.                                     |
| 5. | This is correct. The RDA for carbohydrate is 130 g/day for adults and children based on the minimum amount of glucose used by the brain. The diet should be composed of 45% to 65% carbohydrates.                                                                                                                 |

PTS: 1 CON: Nutrition

11. ANS: 1, 2, 3, 4

Chapter: Chapter 2, Carbohydrates

Objective: 4. Describe the relationship between carbohydrates and dental health.

Page: 30

Heading: Health and Carbohydrates: Dental Caries

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Nutrition

Difficulty: Moderate

|    | Feedback                                                                                                                                                                            |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | This is correct. Dental caries result from the interaction of four factors. All four must occur simultaneously for a cavity to form. A genetically susceptible tooth is one factor. |
| 2. | This is correct. Dental caries result from the interaction of four factors, including the presence of bacteria in the mouth.                                                        |

|    |                                                                                                                                                                                                                                                                                            |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. | This is correct. Dental caries result from the interaction of four factors. Teeth being exposed to carbohydrates is one factor.                                                                                                                                                            |
| 4. | This is correct. Dental caries result from the interaction of four factors. All four must occur simultaneously for a cavity to form. The length of time the teeth are exposed to sugar is one factor that contributes to the formation of caries.                                          |
| 5. | This is incorrect. Inflammation is not a factor that contributes to the formation of dental caries. Dental caries result from the interaction of four factors: a genetically susceptible tooth, bacteria, carbohydrate, and time. All four must occur simultaneously for a cavity to form. |

PTS: 1 CON: Nutrition

12. ANS: 1, 2

Chapter: Chapter 2, Carbohydrates

Objective: 4. Describe the relationship between carbohydrates and dental health.

Page: 31

Heading: Genomic Gem 2-1

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Nutrition

Difficulty: Moderate

|    |                                                                                                                                                                                                                                       |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Feedback                                                                                                                                                                                                                              |
| 1. | This is correct. Certain foods may help counteract the effects of the acids produced by oral bacteria. Aged cheese (cheddar, Swiss, blue, Monterey jack, brie, gouda), as well as processed American cheese, may inhibit tooth decay. |
| 2. | This is correct. Chewing fibrous foods, such as apples or celery, stimulates the production of generous amounts of saliva. Saliva helps clear the mouth of food and counteracts acid production.                                      |
| 3. | This is incorrect. All types of sugars can promote cavity formation, including fructose, glucose, maltose, lactose, and sucrose.                                                                                                      |
| 4. | This is incorrect. Eating fiber does not counteract the effects of dental cavity formation.                                                                                                                                           |
| 5. | This is incorrect. We cannot control our genetic susceptibility for cavities, and bacteria are always present in our mouths and difficult to eliminate.                                                                               |

PTS: 1 CON: Nutrition

13. ANS: 1, 3, 5

Chapter: Chapter 2, Carbohydrates

Objective: 5. List the carbohydrate content (in grams) of each appropriate food group.

Page: 32

Heading: Food Groups

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Nutrition  
Difficulty: Moderate

|    | Feedback                                                                                                                                 |
|----|------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | This is correct. A 3-ounce baked potato is considered a grain and is 15 grams of carbohydrates.                                          |
| 2. | This is incorrect. Soy milk, though plant-based, contains 12 grams of carbohydrates.                                                     |
| 3. | This is correct. Beans are a significant source of protein, and one serving contains 15 grams of carbohydrate.                           |
| 4. | This is incorrect. Plant-based foods are significant sources of protein, fiber, vitamins, and minerals.                                  |
| 5. | This is correct. Many fruits are excellent sources of fiber. A $\frac{1}{2}$ cup of unsweetened applesauce has 15 grams of carbohydrate. |

PTS: 1 CON: Nutrition

14. ANS: 1, 5

Chapter: Chapter 2, Carbohydrates

Objective: 6. Discuss dietary recommendations related to fiber, added sugar, and total carbohydrate intake.

Page: 32

Heading: Dietary Recommendations

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Nutrition

Difficulty: Moderate

|    | Feedback                                                                                                                                                                                                |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | This is correct. The RDA is 175 grams of CHO per day for pregnant women.                                                                                                                                |
| 2. | This is incorrect. According to the 2015–2020 Dietary Guidelines for Americans, no more than 10% of total calories eaten should comprise added sugars.                                                  |
| 3. | This is incorrect. To meet the body's daily energy and nutritional needs while minimizing the risk for chronic disease, adults and children should get 45% to 65% of their calories from carbohydrates. |
| 4. | This is incorrect. The RDA for children older than 1 year of age and most adults younger than 70 years of age is 130 grams of CHO/day.                                                                  |
| 5. | This is correct. The RDA is 210 grams of CHO per day for lactating women.                                                                                                                               |

PTS: 1 CON: Nutrition

15. ANS: 1, 2, 3, 5

Chapter: Chapter 2, Carbohydrates

Objective: 2. List the major functions of carbohydrates and methods through which the body stores them.

Page: 29

Heading: Functions of Carbohydrates: Provide Fuel

Integrated Processes: Teaching and Learning  
 Client Need: Health Promotion and Maintenance  
 Cognitive Level: Comprehension  
 Concept: Nutrition  
 Difficulty: Moderate

|    | Feedback                                                                                                                                                                                 |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | This is correct. A 2-year-old is within the recommended age group. The RDA for children older than 1 year of age and most adults younger than 70 years of age is 130 grams of CHO/day.   |
| 2. | This is correct. A 45-year-old is within the recommended age group. The RDA for children older than 1 year of age and most adults younger than 70 years of age is 130 grams of CHO/day.  |
| 3. | This is correct. A 15-month old is within the recommended age group. The RDA for children older than 1 year of age and most adults younger than 70 years of age is 130 grams of CHO/day. |
| 4. | This is incorrect. A 76-year-old is outside of the range for 130 grams of CHO/day recommendation.                                                                                        |
| 5. | This is correct. A 65-year-old is within the recommended age group. The RDA for children older than 1 year of age and most adults younger than 70 years of age is 130 grams of CHO/day.  |

PTS: 1 CON: Nutrition

16. ANS: 1, 2, 3

Chapter: Chapter 2, Carbohydrates

Objective: 2. List the major functions of carbohydrates and methods through which the body stores them.

Page: 29

Heading: Functions of Carbohydrates: Help Prevent Ketosis

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Patient-Centered Care

Difficulty: Moderate

|    | Feedback                                                                                                                                      |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | This is correct. Fatigue is one of the undesirable consequences of ketosis. Coma and death have occurred in severe cases.                     |
| 2. | This is correct. Nausea is one of the undesirable consequences of ketosis. Coma and death have occurred in severe cases.                      |
| 3. | This is correct. Lack of appetite is one of the undesirable consequences of ketosis. Coma and death have occurred in severe cases.            |
| 4. | This is incorrect. Weight loss may occur when a client is in a state of ketosis because of the breakdown of stored fats and internal protein. |

|    |                                                                                                             |
|----|-------------------------------------------------------------------------------------------------------------|
| 5. | This is incorrect. High blood sugar is not a consequence of ketosis because carbohydrate intake is too low. |
|----|-------------------------------------------------------------------------------------------------------------|

PTS: 1 CON: Patient-Centered Care

17. ANS: 1, 2

Chapter: Chapter 2, Carbohydrates

Objective: 1. Describe the types of carbohydrates, identify food sources of each, and indicate their functions in the body.

Page: 29

Heading: Functions of Carbohydrates: Help Prevent Ketosis

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Elimination

Difficulty: Moderate

|    | Feedback                                                                                                                                                            |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | This is correct. Acetone is a ketone body. The presence of ketosis is easily determined by testing for the presence of acetone or diacetic acid in the urine.       |
| 2. | This is correct. Diacetic acid is a ketone body. The presence of ketosis is easily determined by testing for the presence of acetone or diacetic acid in the urine. |
| 3. | This is incorrect. Glucose is not a ketone body and does not determine ketosis in the urine.                                                                        |
| 4. | This is incorrect. Fiber is not a ketone body and does not determine ketosis in the urine.                                                                          |
| 5. | This is incorrect. Cholesterol is not a ketone body and does not determine ketosis in the urine.                                                                    |

PTS: 1 CON: Elimination

18. ANS: 1, 2, 3

Chapter: Chapter 2, Carbohydrates

Objective: 1. Describe the types of carbohydrates, identify food sources of each, and indicate their functions in the body.

Page: 26

Heading: Basic Terminology: Sugar Alcohols

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Comprehension

Concept: Nutrition

Difficulty: Moderate

|    | Feedback                                                              |
|----|-----------------------------------------------------------------------|
| 1. | This is correct. Sugar alcohols generally do not promote tooth decay. |
| 2. | This is correct. Sugar alcohols have a cooling effect on the tongue.  |

|    |                                                                                                                                                                          |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. | This is correct. Sugar alcohols may have a laxative effect for some people if consumed in excess.                                                                        |
| 4. | This is incorrect. Nonnutritive sweeteners are 150 to 500 times as sweet as sugar. Sugar alcohols are a one-for-one replacement for sugars in recipes.                   |
| 5. | This is incorrect. Nonnutritive sweeteners, rather than sugar alcohols, are sugar substitutes that do not add bulk or volume to a food product; they add only sweetness. |

PTS: 1 CON: Nutrition

19. ANS: 1, 2, 3

Chapter: Chapter 2, Carbohydrates

Objective: 1. Describe the types of carbohydrates, identify food sources of each, and indicate their functions in the body.

Page: 27

Heading: Composition of Carbohydrates

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Nutrition

Difficulty: Moderate

|    | Feedback                                                                                                                                                                                            |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | This is correct. Starch, the major source of carbohydrate in the diet, is found primarily in grains, starchy vegetables, legumes, and in foods made from grains.                                    |
| 2. | This is correct. Glycogen represents the body's carbohydrate stores. Glucose is stored in liver and muscle tissue as the polysaccharide glycogen.                                                   |
| 3. | This is correct. The three types of complex carbohydrates of nutritional importance are starch, glycogen, and fiber. Fiber adds almost no fuel or energy value to the diet, but it does add volume. |
| 4. | This is incorrect. Sucrose is the most prevalent disaccharide, made up of two monosaccharides.                                                                                                      |
| 5. | This is incorrect. The monosaccharide galactose comes mainly from the breakdown of the milk sugar lactose.                                                                                          |

PTS: 1 CON: Nutrition

20. ANS: 1, 2, 3

Chapter: Chapter 2, Carbohydrates

Objective: 1. Describe the types of carbohydrates, identify food sources of each, and indicate their functions in the body.

Page: 29

Heading: Composition of Carbohydrates

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Comprehension

Concept: Neurological Regulation

Difficulty: Moderate

|    |                                                                                                                                                                                                  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Feedback                                                                                                                                                                                         |
| 1. | This is correct. Diets that are high in fats and sugars have been found to cause impairment of cognition.                                                                                        |
| 2. | This is correct. Diets that are high in fats and sugars have been found to cause impairment of mood.                                                                                             |
| 3. | This is correct. Diets that are high in fats and sugars have been found to cause impairment of cognition and mood, and dysregulation of appetite control, a vicious cycle that leads to obesity. |
| 4. | This is incorrect. Memory deterioration is not caused by diets high in fats and sugars.                                                                                                          |
| 5. | This is incorrect. Brain fatigue is not caused by diets high in fats and sugars.                                                                                                                 |

PTS: 1

CON: Neurological Regulation