

Chapter 2: Carbohydrates

1. When we say “blood sugar,” we are talking about:

1. Fructose
2. Glucose
3. Galactose
4. Lactose

Ans: 2

	Feedback
1.	Fructose is found in fruits and honey.
2.	Glucose is the major form of sugar in the blood commonly called blood sugar.
3.	Galactose comes mainly from the breakdown of the milk sugar lactose.
4.	Lactose occurs only naturally in milk.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Comprehension

2. Which of the following factors makes carbohydrate important in world nutrition?

1. They are expensive.
2. They can be grown in limited areas.
3. They provide complete nutrition.
4. They can be stored more simply and cheaply than other foods.

Ans: 5

	Feedback
1.	Carbohydrates are low in cost.
2.	Carbohydrates are easily grown in most climates.
3.	Carbohydrates are not considered complete nutrition
4.	Carbohydrates are easily stored, do not require refrigeration or electricity, and their shelf life is long.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Comprehension

3. Dietary fiber that stimulates peristalsis and prevents constipation is called _____ fiber.

1. Plant
2. Polyunsaturated
3. Soluble

4. Insoluble

Ans: 4

	Feedback
1.	Dietary fiber refers to foods mostly from plants.
2.	<i>Polyunsaturated</i> is a term that is used with fats.
3.	Soluble fiber dissolves in water and thickens to form gels.
4.	Insoluble fiber aids in the regularity of bowel movements and reduces the risk for some forms of cancer.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Comprehension

4. Which of the following exchanges contains less than 6 grams of carbohydrate?

1. Fruit
2. Milk
3. Starch/bread
4. Vegetable

Ans: 4

	Feedback
1.	One fruit exchange contains approximately 15 grams of carbohydrates.
2.	One milk exchange contains approximately 12 grams of carbohydrates.
3.	One starch/bread exchange contains approximately 15 grams of carbohydrates.
4.	One vegetable exchange contains approximately 5 grams of carbohydrates.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Comprehension

5. Experts recommend that a healthy male adult consume how many grams of fiber per day?

1. 25
2. 32
3. 38
4. 45

Ans: 3

	Feedback
1.	A healthy female adult is recommended to consume 25 grams of fiber per day.
2.	A healthy male adult is recommended to consume 38 grams of fiber per day.
3.	A healthy male adult is recommended to consume 38 grams of fiber per day.

4.	A healthy male adult is recommended to consume 38 grams of fiber per day.
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KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Knowledge

6. Most items in which of the following exchanges contain 2 to 3 grams of fiber?

1. Free foods
2. Meat
3. Milk
4. Vegetable

Ans: 4

	Feedback
1.	Free foods are just that, free and are not accounted for in the exchange.
2.	Meat does not contain carbohydrates.
3.	One milk exchange contains approximately 12 grams of carbohydrates.
4.	One vegetable exchange contains approximately 5 grams of carbohydrates.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Comprehension

7. One function of fiber in the diet is to aid:

1. Elimination of intestinal waste
2. Energy balance
3. Secretion of hydrochloric acid
4. Water balance

Ans: 1

	Feedback
1.	Fiber adds almost no fuel or energy value to the diet, but it does add volume, filling the stomach and providing satiety. It also aids in the elimination of intestinal waste.
2.	Fiber adds almost no fuel or energy value.
3.	Fiber fills the stomach but does not play a role in the secretion of hydrochloric acid.
4.	Fiber does not play a role in water balance.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Knowledge

8. Dextrose is another name for:

1. Fructose
2. Glucose
3. Galactose
4. Lactose

Ans: 4

	Feedback
1.	Another name for glucose is dextrose.
2.	Another name for glucose is dextrose.
3.	Another name for glucose is dextrose.
4.	Another name for glucose is dextrose.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Knowledge

9. An example of a nonnutritive sweetener is:

1. Isomalt
2. Aspartame
3. Sorbitol
4. Mannitol

Ans: 2

	Feedback
1.	Isomalt is a sugar alcohol that is used on a one-to-one replacement basis for sugars in recipes.
2.	Aspartame is an example of a nonnutritive sweetener.
3.	Sorbitol is a sugar alcohol that is used on a one-to-one replacement basis for sugars in recipes.
4.	Mannitol is a sugar alcohol that is used on a one-to-one replacement basis for sugars in recipes.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Knowledge

10. Milk sugar is referred to as:

1. Fructose
2. Lactose
3. Maltose
4. Sucrose

Ans: 2

	Feedback
1.	Fructose is a monosaccharide.
2.	Lactose, a disaccharide, is milk sugar.
3.	Maltose is a double sugar that occurs primarily during starch digestion and is produced when the body breaks starches into simpler units.
4.	Sucrose is ordinary white table sugar.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Knowledge

11. Sixteen grams of sucrose is equal to _____ teaspoons of sugar.

1. 1
2. 4
3. 8
4. 16

Ans: 2

	Feedback
1.	Four grams of carbohydrates (sucrose) equals 1 teaspoon.
2.	Four grams of carbohydrates (sucrose) equals 1 teaspoon; so 16 grams would equal 4 teaspoons.
3.	Four grams of carbohydrates (sucrose) equals 1 teaspoon; so 32 grams would equal 8 teaspoons.
4.	Four grams of carbohydrates (sucrose) equals 1 teaspoon; so 64 grams would equal 16 teaspoons.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Analysis

12. The storage form of carbohydrate in the body is:

1. Glycogen
2. Sucrose
3. Starch
4. Glucose

Ans: 1

	Feedback
1.	Glycogen represents the body's carbohydrate stores.
2.	Sucrose is table sugar.
3.	Starch is the major source of carbohydrate in the diet.

4.	Glucose is the monosaccharide in the body and the major form of sugar in the blood.
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KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Knowledge

13. Energy for the body cells is provided by:

1. Fructose
2. Glucose
3. Galactose
4. Sucrose

Ans: 2

	Feedback
1.	The body converts fructose into glucose for energy.
2.	Glucose is the primary source of energy for the body cells.
3.	The body converts galactose into glucose for energy.
4.	Sucrose is table sugar.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Knowledge

14. A client's laboratory value of _____ mg/dL for a fasting serum glucose level would be reported to the physician immediately.

1. 50
2. 70
3. 90
4. 100

Ans: 1

	Feedback
1.	Normal fasting blood sugar is 70 to 100 mg/dL; a value of 50 mg/dL would be of concern.
2.	A fasting blood glucose level of 70 mg/dL would be within the normal range of 70 to 100 mg/dL
3.	A fasting blood glucose level of 90 mg/dL would be within the normal range of 70 to 100 mg/dL.
4.	A fasting blood glucose level of 100 mg/dL would be within the normal range of 70 to 100 mg/dL.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Reduction of Risk Potential | **Cognitive Level:** Application

15. Which of the following foods would provide the least amount of carbohydrate to a client?

1. 8 ounces of whole milk
2. 1 tablespoon of pickled herring
3. 1 enriched hamburger bun
4. 1/2 cup unsweetened applesauce

Ans: 2

	Feedback
1.	A cup of milk, 8 ounces, would provide approximately 12 grams of carbohydrates.
2.	Herring is a fish and as such would not contain carbohydrates.
3.	A hamburger bun would provide approximately 15 grams of carbohydrates.
4.	A 1/2 cup of applesauce would provide approximately 15 grams of carbohydrates.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Application

16. A client is seeking to increase his intake of complex carbohydrate. Which of the following foods would be appropriate?

1. Kidney beans
2. Natural honey
3. Low-fat cottage cheese
4. Apple

Ans: 1

	Feedback
1.	Kidney beans are legumes and a source of complex carbohydrates.
2.	Honey contains fructose, a simple carbohydrate.
3.	Cottage cheese would most likely contain lactose or milk sugar.
4.	Apple, a fruit, would most likely contain fructose.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Application

17. Which of the following statements about dietary fiber is correct?

1. Soluble fiber dissolves in oil but not in water.
2. Insoluble fiber increases intestinal excretion of cholesterol.

3. Soluble fiber attaches to other waste products in the intestine to stimulate peristalsis.
4. Fiber is the portion of plants the human body cannot digest.

Ans: 4

	Feedback
1.	Soluble fiber dissolves in water and thickens to form gels.
2.	Soluble fiber has been shown to reduce cholesterol levels.
3.	Insoluble fiber stimulates peristalsis.
4.	Fiber refers to foods, mostly plants, that the human body cannot break down to digest and that are eliminated in intestinal waste.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Comprehension

18. Which of the following would be a good source of insoluble fiber?

1. Apple skin
2. Oat bran
3. Broccoli
4. Oranges

Ans: 1

	Feedback
1.	Fruit and vegetable skins are good sources of insoluble fiber.
2.	Oat bran is a good source of soluble fiber.
3.	Broccoli is a good source of soluble fiber.
4.	Oranges and other citrus fruits are good sources of fiber.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Application

19. Which of the following statements would be incorrect?

1. Ketosis can occur when a person avoids carbohydrate intake.
2. Acetone and diacetic acid are ketone bodies that can be measured in the urine.
3. Approximately 130 grams of carbohydrate is needed each day to prevent ketosis.
4. A person can identify impending ketosis by its symptom of fainting.

Ans: 4

	Feedback
1.	Ketosis can occur when the body has to break down stored fat and internal protein to meet fuel requirements because carbohydrate intake is low.
2.	Ketone bodies, acetone and diacetic acid, can be measured in the urine.

3.	An intake of 130 grams of carbohydrates each day is usually enough to prevent ketosis.
4.	Fatigue, nausea, and lack of appetite indicate ketosis. {Chris/Ed: but fainting does not?}

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Reduction of Risk Potential | **Cognitive Level:** Comprehension

20. A patient has read about the health benefits of fiber. She asks the nurse about the advisability of taking fiber concentrates. Which of the following statements would be the best response by the nurse?

1. "Fiber is best obtained from foods because they also contain other nutrients."
2. "It is safe to consume any amount of fiber because there are no known interactions with other nutrients."
3. "Fiber concentrates are best taken immediately before or with meals."
4. "Fiber supplements are recommended for people "on the go" who do not eat much."

Ans: 1

	Feedback
1.	Healthy people should achieve a desirable fiber intake by consuming fiber-rich fruits, vegetables, legumes, and whole-grain cereals, which also provide minerals, vitamins, and phytochemicals, instead of adding fiber concentrates (such as psyllium) to their diet.
2.	Eating too much fiber can lead to problems such as interference with mineral absorption.
3.	Fiber concentrates should be avoided if possible.
4.	Individuals should consume an adequate amount of fiber regardless of their activity level. Fiber concentrates do not supply adequate nutrition.

KEY: Integrated Process: Teaching/Learning | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Application

21. Oatmeal, barley, broccoli, and citrus fruits are foods that contain much:

1. Lactose
2. Maltose
3. Soluble fiber
4. Insoluble fiber

Ans: 3

	Feedback
1.	Lactose is found in milk.

2.	Maltose is found in malt, malt products, beer, some infant formulas, and sprouting seeds.
3.	Oatmeal, barley, broccoli, and citrus fruits contain soluble fiber.
4.	Sources of insoluble fiber include the woody or structural parts of plants such as fruit and vegetable skins and the outer coating (bran) of wheat kernels.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Knowledge

22. Which statement is true about nonnutritive sweeteners?

1. They add bulk to recipes like sugar.
2. They can replace sugar in a recipe, one for one.
3. They are slowly and incompletely used by the body.
4. They add intense sweetness to any recipe.

Ans: 4

	Feedback
1.	Nonnutritive sweeteners do not add bulk or volume to foods.
2.	They are about 150 to 500 times sweeter than sugar.
3.	Nonnutritive sweeteners are not slowly and completely used by the body.
4.	They are sugar substitutes providing intense sweetness.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Comprehension

23. Which of the following is a disaccharide?

1. Glucose
2. Lactose
3. Fructose
4. Galactose

Ans: 2

	Feedback
1.	Glucose is a monosaccharide.
2.	Lactose is a disaccharide.
3.	Fructose is a monosaccharide.
4.	Galactose is a monosaccharide.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Knowledge

24. The nurse is reviewing the patient's nutritional history. The patient reports that she uses 1 teaspoon of sugar in her coffee. The nurse identifies this sugar as which of the following?

1. Sucrose
2. Lactose
3. Glucose
4. Fructose

Ans: 1

	Feedback
1.	Table sugar is sucrose.
2.	Lactose is the sugar in milk.
3.	Glucose is the sugar used by the body cells.
4.	Fructose is the sugar found in fruits and honey.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Application

25. According to the Food and Nutrition Board of the National Academy of Sciences:

1. An individual should have at least 10% of total calories eaten containing sugar.
2. Both adults and children should ingest 100 grams or less of carbohydrates each day.
3. Forty-five to sixty-five percent of kcalories should come from carbohydrate to minimize disease risk.
4. People with diets high in added sugar have higher intakes of essential nutrients.

Ans: 3

	Feedback
1.	According to dietary guidelines, no more than 6% of total calories eaten should comprise added sugars.
2.	Adults and children should consume 130 grams of carbohydrates each day.
3.	Forty-five to sixty-five percent of calories should come from carbohydrates.
4.	People with diets high in sugar tend to have lower intakes of essential nutrients.

KEY: Integrated Process: Nursing Process | **Client Need:** Physiological Integrity: Basic Care and Comfort | **Cognitive Level:** Comprehension