

Health: The Basics, 12e (Donatelle)

Chapter 12a Focus On: Minimizing Your Risk for Diabetes

1) The Centers for Disease Control and Prevention (CDC) estimates that approximately how many Americans have diabetes?

- A) nearly 10 million
- B) nearly 20 million
- C) nearly 30 million
- D) nearly 40 million

Answer: C

Diff: 1

Skill: Remembering

Section: What Is Diabetes?

Learning Outcome: 12a.1

2) Diabetes mellitus is a disease characterized by

- A) high blood fats.
- B) high blood glucose.
- C) low blood pressure.
- D) high blood proteins.

Answer: B

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

3) Which of the following is TRUE in regard to the use of glucose by body cells?

- A) Glucose decreases energy availability for body cells.
- B) Glucose is the least preferred energy source for red blood cells.
- C) The uptake of glucose by body cells is signaled by a hormone secreted by the pancreas.
- D) Glucose easily diffuses across cell membranes.

Answer: C

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

4) The primary action of insulin is to

- A) increase blood glucose concentration.
- B) stimulate transporters to take up glucose from the bloodstream and carry it into the cell.
- C) metabolize glucose to energy.
- D) stimulate cells to carry glucose into the liver for storage.

Answer: B

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

5) Type 1 diabetes

- A) most often appears during childhood or adolescence.
- B) results in a temporary increase in insulin production.
- C) results in an enhanced immune system.
- D) is also called non-insulin-dependent diabetes.

Answer: A

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

6) Which of the following symptoms is NOT associated with type 1 diabetes?

- A) weight loss
- B) excessive thirst
- C) excessive urination
- D) agitation and excessive energy

Answer: D

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

7) Uncontrolled diabetes can increase the risk of

- A) liver cancer.
- B) blindness.
- C) brain tumors.
- D) skin cancer.

Answer: B

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

8) Since the year 2000, the incidence of type 2 diabetes in children and teens has

- A) become more prevalent than type 1 diabetes.
- B) decreased by 10 percent.
- C) remained stable.
- D) increased.

Answer: D

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

9) Which of the following would NOT put an individual at an increased risk of developing type 2 diabetes?

- A) stress
- B) sedentary lifestyle
- C) inadequate sleep
- D) physical activity

Answer: D

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

10) Which of the following individuals would have the highest risk for developing type 2 diabetes?

- A) a white male with a waist circumference of 34 inches
- B) a normal-weight black female with a history of depression
- C) an Asian American female with high blood pressure
- D) a Native American male with a BMI of 30

Answer: D

Diff: 3

Skill: Applying

Section: What Is Diabetes?

Learning Outcome: 12a.1

11) About what percentage of the American population over the age of 20 has symptoms of prediabetes?

- A) 13 percent
- B) 26 percent
- C) 37 percent
- D) 51 percent

Answer: C

Diff: 1

Skill: Remembering

Section: What Is Diabetes?

Learning Outcome: 12a.1

12) Which of the following occurs as a result of gestational diabetes?

- A) The mother has significantly reduced risk of progressing to type 2 diabetes after giving birth.
- B) The growth of the fetus is limited.
- C) Changing hormone levels reduce metabolic stress.
- D) There is a higher risk of birth-related complications.

Answer: D

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

13) Conditions that increase the risk for developing type 2 diabetes include all of the following EXCEPT

- A) gestational diabetes.
- B) prediabetes.
- C) metabolic syndrome.
- D) regular exercise and a healthy diet.

Answer: D

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

14) Which of the following is TRUE with respect to prediabetes?

- A) The symptoms typically range from mild to moderate.
- B) It is one of the conditions linked to metabolic syndrome.
- C) It is most common in college students.
- D) An estimated 49 million Americans age 20 or older have it.

Answer: B

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

15) John has not been feeling well. He is constantly tired and feels bloated. His blood pressure is low and at times his vision is blurred. Which two symptoms does John have that are characteristic of diabetes?

- A) weight gain and blurred vision
- B) low blood pressure and weight gain
- C) fatigue and blurred vision
- D) low blood pressure and fatigue

Answer: C

Diff: 3

Skill: Applying

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

16) Nerve damage associated with diabetes can cause numbness and tingling in the

- A) neck.
- B) hands.
- C) feet.
- D) hands and feet.

Answer: D

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

- 17) Diabetes can result in weight loss because
- A) so many calories are lost in the glucose that passes into the urine.
 - B) appetite is suppressed due to high blood sugar.
 - C) a diabetic burns more calories during a given activity.
 - D) excessive urination means loss of water weight.

Answer: A

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

- 18) Uncontrolled diabetes can cause all of the following EXCEPT
- A) coma.
 - B) heart disease.
 - C) kidney disease.
 - D) pancreatic cancer.

Answer: D

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

- 19) In a state of diabetic ketoacidosis,
- A) blood acidity falls extremely low.
 - B) levels of acidic molecules in the blood rise dangerously high.
 - C) the brain must rely on glucose as a source of energy.
 - D) kidney function will increase.

Answer: B

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

- 20) Which of the following factors contributes to a diabetes-related amputation?
- A) pneumonia or flu
 - B) low blood pressure
 - C) impaired immune response
 - D) kidney failure

Answer: C

Diff: 4

Skill: Analyzing

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

21) Kara was tested for diabetes. Her fasting plasma glucose test showed a level of 120 mg/dL. This indicates that

- A) Kara has diabetes.
- B) Kara has prediabetes.
- C) Kara has normal blood glucose levels.
- D) Kara's test results must be confirmed with an oral glucose tolerance test.

Answer: B

Diff: 3

Skill: Applying

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

22) Miguel was tested for diabetes. His oral glucose tolerance test showed a level of 120 mg/dL. This indicates that

- A) Miguel has diabetes.
- B) Miguel has prediabetes.
- C) Miguel has normal blood glucose levels.
- D) Miguel's test results must be confirmed with a fasting plasma glucose test.

Answer: C

Diff: 3

Skill: Applying

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

23) Diabetics should check their own blood glucose level

- A) several times a month.
- B) once a week.
- C) several times a day.
- D) once a day.

Answer: C

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

24) A test that gives the average value of a patient's glucose over the past 2 to 3 months is the

- A) hemoglobin A1C test.
- B) red blood cell count.
- C) oral blood glucose test.
- D) fasting plasma tolerance test.

Answer: A

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

25) The recommended diet for individuals at risk of developing diabetes includes all of the following foods EXCEPT

- A) whole grains.
- B) high-fiber foods.
- C) fatty fish.
- D) red meat.

Answer: D

Diff: 2

Skill: Understanding

Section: Treating Diabetes

Learning Outcome: 12a.3

26) Carrying an excessive amount of body fat around the waist, which is a risk factor for diabetes, is a condition known as

- A) rapid weight gain.
- B) central cellulite storage.
- C) central adiposity.
- D) gastrointestinal adiposity.

Answer: C

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

27) Research suggests that individuals with prediabetes may avoid progressing to diabetes if they lose what percentage of current body weight?

- A) as little as 3 to 5 percent
- B) as little as 5 to 7 percent
- C) as little as 7 to 9 percent
- D) as little as 9 to 11 percent

Answer: B

Diff: 2

Skill: Understanding

Section: Treating Diabetes

Learning Outcome: 12a.3

28) The condition of elevated blood glucose levels during pregnancy is called

- A) gestational diabetes.
- B) fetal diabetes.
- C) prediabetes.
- D) type 1 diabetes.

Answer: A

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

29) A cluster of six conditions that strongly increases the risk of developing type 2 diabetes is known as

- A) cardiovascular disease.
- B) prediabetes.
- C) central adiposity.
- D) metabolic syndrome.

Answer: D

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

30) If cells cannot utilize glucose for energy, the body will break down fat, which produces acidic molecules called

- A) lipids.
- B) ketones.
- C) proteins.
- D) glycogen.

Answer: B

Diff: 1

Skill: Remembering

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

31) Randy is an overweight 22-year-old whose doctor is concerned about his risk of diabetes. The doctor ordered a test that requires Randy to drink a concentrated glucose solution and then have blood drawn two hours later. The test Randy will undergo is the

- A) glucose meter test.
- B) hemoglobin A1C test.
- C) oral glucose tolerance test.
- D) fasting plasma glucose test.

Answer: C

Diff: 3

Skill: Applying

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

32) The body organ that secretes the hormone insulin is the

- A) spleen.
- B) liver.
- C) kidney.
- D) pancreas.

Answer: D

Diff: 1

Skill: Remembering

Section: What Is Diabetes?

Learning Outcome: 12a.1

33) The organ that filters excess glucose from the blood is the

- A) spleen.
- B) liver.
- C) kidney.
- D) pancreas.

Answer: C

Diff: 1

Skill: Remembering

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

34) The organ that stores glycogen that has been converted from glucose is the

- A) spleen.
- B) liver.
- C) kidney.
- D) pancreas.

Answer: B

Diff: 1

Skill: Remembering

Section: What Is Diabetes?

Learning Outcome: 12a.1

35) A state of elevated blood glucose is

- A) hyperglycemia.
- B) hypoglycemia.
- C) insulin resistance.
- D) glycemic load.

Answer: A

Diff: 1

Skill: Remembering

Section: What Is Diabetes?

Learning Outcome: 12a.1

36) Which hormone is required by the body's cells for the uptake of glucose?

- A) cortisol
- B) estrogen
- C) glycogen
- D) insulin

Answer: D

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

37) In which form of diabetes does the immune system destroy the body's insulin-producing cells?

- A) type 1 diabetes
- B) type 2 diabetes
- C) gestational diabetes
- D) prediabetes

Answer: A

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

38) A state in which the body's cells fail to respond to the effects of insulin is

- A) hyperglycemia.
- B) hypoglycemia.
- C) insulin resistance.
- D) diabetic coma.

Answer: C

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

39) Which form of diabetes develops slowly and occurs when the body either loses its ability to produce enough insulin or cannot respond to the insulin that is available?

- A) type 1 diabetes
- B) type 2 diabetes
- C) gestational diabetes
- D) insulin-dependent diabetes

Answer: B

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

40) Carbohydrates that have been ingested are broken down into the form of sugar known as

- A) glucose.
- B) glycogen.
- C) lactose.
- D) fructose.

Answer: A

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

41) Diabetes kills more Americans each year than heart disease and cancer combined.

Answer: FALSE

Diff: 1

Skill: Remembering

Section: What Is Diabetes?

Learning Outcome: 12a.1

42) Experts predict that more than 1 in 3 Americans will have diabetes by the year 2050.

Answer: TRUE

Diff: 1

Skill: Remembering

Section: What Is Diabetes?

Learning Outcome: 12a.1

43) Medications for treating diabetes tend to become less effective over time.

Answer: TRUE

Diff: 2

Skill: Understanding

Section: Treating Diabetes

Learning Outcome: 12a.3

44) In a healthy person, an increase in blood glucose following a carbohydrate-containing meal or snack will result in increased secretion of insulin.

Answer: TRUE

Diff: 4

Skill: Analyzing

Section: What Is Diabetes?

Learning Outcome: 12a.1

45) The increase in type 2 diabetes in the United States is thought to be primarily due to genetic factors.

Answer: FALSE

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

46) Diabetes can contribute to gum disease.

Answer: TRUE

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

47) An oral glucose tolerance test result of 150 mg/dL indicates that the individual has diabetes.

Answer: FALSE

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

48) People with diabetes generally do self-checks to monitor blood sugar throughout the day.

Answer: TRUE

Diff: 2

Skill: Understanding

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2

49) A diabetic who has gastric bypass surgery may eliminate the symptoms of diabetes.

Answer: TRUE

Diff: 2

Skill: Understanding

Section: Treating Diabetes

Learning Outcome: 12a.3

50) All people with type 2 diabetes can control it with lifestyle changes and will never need to take insulin.

Answer: FALSE

Diff: 2

Skill: Understanding

Section: Treating Diabetes

Learning Outcome: 12a.3

51) What is the primary difference between type 1 and type 2 diabetes?

Answer: Type 1 is a genetic autoimmune disorder in which the body's immune system attacks the insulin-making cells of the pancreas. This results in a rapid decrease in—or total cessation of—insulin production. Type 2 diabetes develops slowly over time and is related to genetics and biology, age, ethnicity, and lifestyle factors, especially overweight and obesity, low levels of physical activity, a poor diet, inadequate sleep, and stress. Over time, although production of insulin may be increased, cells become resistant to its effects, Hyperproduction of insulin damages the pancreas and insulin output eventually declines, causing a persistent rise in blood glucose. A person with type 1 diabetes must take insulin injections. A person with type 2 can sometimes control it through lifestyle changes and, if necessary, oral medications. In some cases, they must inject insulin.

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

52) Identify the main risks of gestational diabetes to the mother and to the fetus.

Answer: Women with gestational diabetes have an increased risk of high blood pressure, high blood acidity, infection, and death. They also have a higher risk for developing type 2 diabetes in the decade following the birth. The fetus of a woman with gestational diabetes may become excessively large, with an increased risk for birth trauma; malformations of the heart, nervous system, and bones; respiratory distress; and fetal death. Even after an uncomplicated birth, the newborn is at risk for high insulin levels and fluctuations in blood glucose.

Diff: 2

Skill: Understanding

Section: What Is Diabetes?

Learning Outcome: 12a.1

53) What steps can an individual take to lower the risk of diabetes?

Answer: Lose weight or maintain a healthy weight; eat right (decrease saturated fats and *trans* fats, reduce portion sizes, increase fruit and vegetables, increase whole grains and fiber, decrease sodium, etc.); exercise at least 30 minutes a day five days a week; avoid smoking; limit or stop drinking alcohol; get adequate sleep; find ways to reduce stress. Individuals with a family history of diabetes should have regular medical check-ups.

Diff: 3

Skill: Applying

Section: What Is Diabetes?

Learning Outcome: 12a.1

54) Explain why people with diabetes that is poorly managed are at increased risk for amputations, especially of the toes and feet.

Answer: Tissue damage from trauma and infections, especially in the feet, are a frequent threat to people with diabetes. At the same time, nerve damage reduces sensation in the extremities, allowing people with diabetes to be unaware of traumatic or infectious tissue damage until it has progressed. Moreover, high blood glucose damages blood vessels serving the limbs and impairs delivery of nutrients to assist in wound healing; thus, amputations are often necessary.

Diff: 4

Skill: Analyzing

Section: What Are the Symptoms of Diabetes?

Learning Outcome: 12a.2