

Chapter 2: Biological Development

Test Bank

Multiple Choice

1. The part of the body that produces and regulates hormone levels is _____.

- A. the endocrine system
- B. leptin
- C. the delayed phase preference
- D. adrenarche

Ans: A

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Knowledge

Answer Location: The Endocrine System

Difficulty Level: Easy

2. Which statement accurately describes hormone level regulation in the human body?

- A. Hormone levels always remain at a certain level without increasing or decreasing.
- B. Hormone levels fluctuate as the body releases more hormones if needed.
- C. Hormone levels are on a rigid 24-hr schedule that replicates each day.
- D. Hormone levels remain constant as long as the temperature inside and outside the body remains constant.

Ans: B

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Analysis

Answer Location: The Endocrine System

Difficulty Level: Medium

3. Which item is responsible for hormone production along with eating, drinking, and temperature regulation?

- A. pituitary gland
- B. gonads
- C. hypothalamus
- D. testes

Ans: C

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Knowledge

Answer Location: Hypothalamus–Pituitary–Gonadal Axis

Difficulty Level: Easy

4. Which part of the body stimulates the sex glands to mature, enlarge, and produce their own hormones?

- A. melatonin
- B. hypothalamus
- C. gonads
- D. pituitary gland

Ans: D

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Knowledge

Answer Location: Hypothalamus–Pituitary–Gonadal Axis

Difficulty Level: Easy

5. A scientist interested in studying metabolism prior to puberty would benefit from focusing on _____.

- A. adrenal hormones
- B. gonads
- C. hypothalamus
- D. melatonin

Ans: A

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Comprehension

Answer Location: Adrenarche

Difficulty Level: Medium

6. Luis, a 13-year-old boy, has been experiencing some mental health problems lately. Before puberty, this was not an issue for Luis. His mother recently lost her job, and his family had to relocate to a new place. Luis' sensitivity to stress could be attributed to _____.

- A. increased leptin
- B. heightened cortisol responses
- C. decreased kisspeptin
- D. lack of melatonin

Ans: B

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Application

Answer Location: Adrenarche

Difficulty Level: Hard

7. Kiesha, an 11-year-old girl, is experiencing rapid physical changes. Her body is changing so fast she has to buy new pants and shoes after only a couple of months. Keisha has most likely begun her _____.

- A. adrenarche
- B. menarche
- C. adolescent growth spurt
- D. delayed phase preference

Ans: C

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Application

Answer Location: Body Shape and Size

Difficulty Level: Hard

8. How is the adolescent growth spurt related to biological sex?

- A. Boys and girls begin their adolescent growth spurt around the same time, although boys spend a longer time within the growth spurt as most will be taller than girls.
- B. Girls begin their adolescent growth spurt later than boys, which supports the finding that boys usually end up taller than girls as a whole.
- C. Boys begin their adolescent growth spurt earlier, although the delay in growth for girls allows them to experience more prepubertal growth allowing them more cognitive affectation.
- D. Girls begin their adolescent growth spurt earlier, although the delay for boys allows them longer prepubertal growth leading them to be taller than girls in the end.

Ans: D

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Analysis

Answer Location: Body Shape and Size

Difficulty Level: Medium

9. Which is an example of a secondary sex characteristic?

A. breast development

B. penis growth

C. menarche

D. nocturnal emissions

Ans: A

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Comprehension

Answer Location: Secondary Sex Characteristics

Difficulty Level: Medium

10. Tucker, a 13-year-old boy, noticed that his voice is changing. It cracks sometimes when he is answering a question in class. He is very embarrassed about the situation and has started to become much quieter. He has also noticed that he has more acne on his face and sweats more during soccer practice. He sometimes feels like he needs to shower twice a day so that he won't have any body odor. Tucker is experiencing _____.

A. primary sex characteristics

B. secondary sex characteristics

C. gonadarche

D. adrenarche

Ans: B

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Application

Answer Location: Secondary Sex Characteristics

Difficulty Level: Hard

11. Which is directly related to fertility in boys and girls?

A. secondary sex characteristics

B. primary sex characteristics

C. adrenarche

D. cortisol

Ans: B

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Knowledge

Answer Location: Primary Sex Characteristics

Difficulty Level: Easy

12. How are nocturnal emissions related to the spermatarche?

A. Nocturnal emissions take place during the adrenarche prior to the spermatarche.

B. Nocturnal emissions have no relation to the spermatarche rather it is related to the menarche.

C. Nocturnal emissions are the form that most boys experience the spermatarche.

D. Nocturnal emissions are part of the delayed phase preference.

Ans: C

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Analysis

Answer Location: Primary Sex Characteristics

Difficulty Level: Medium

13. Hannah, a 12-year-old girl, is experiencing a lot of growth in height and weight. She has also noticed that she is growing body hair under her arms. Most recently, Hannah has experienced her menarche. This latest development is _____.

- A. due to an increase in testosterone
- B. due to melatonin levels
- C. a secondary sex characteristic
- D. a primary sex characteristic

Ans: D

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Application

Answer Location: Primary Sex Characteristics

Difficulty Level: Hard

14. How is the experience of the menarche related to pubertal knowledge?

- A. Girls with more knowledge of menstruation tend to view it positively.
- B. Girls with more knowledge of menstruation tend to view it negatively.
- C. Girls with little knowledge of menstruation are less likely to be scared by it.
- D. Girls with little knowledge of menstruation tend to think it won't happen to them.

Ans: A

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Analysis

Answer Location: Subjective Experience of Pubertal Events

Difficulty Level: Medium

15. Which statement describes the differing cultural and contextual experience of puberty between boys and girls?

- A. Boys are rarely educated about ejaculation, while girls are often educated about menarche.
- B. Girls may be forbidden from socializing or going to school while menstruating.
- C. Boys are dismissed from school to attend work resulting in women completing more education.
- D. Girls feel a sense of pride about menarche because it is recognized as an honorary transition to adulthood.

Ans: B

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Comprehension

Answer Location: Subjective Experience of Pubertal Events

Difficulty Level: Medium

16. Jamal, a 13-year-old boy, has just experienced his spermarche. His parents did not discuss this marker of puberty with him. Every time his mother or father try to discuss reproduction and puberty with him, they feel uneasy. Because of this interaction, Jamal's reaction to his spermarche tends to be more about _____.

- A. depression
- B. happiness
- C. confusion

D. anxiety

Ans: C

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Application

Answer Location: Subjective Experience of Pubertal Events

Difficulty Level: Hard

17. The delayed phase preference is triggered by a change in the release of _____.

A. leptin

B. kisspeptin

C. estrogen

D. melatonin

Ans: D

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Knowledge

Answer Location: Sleep Patterns

Difficulty Level: Easy

18. How is melatonin related to sleep patterns in adolescence?

A. Melatonin is released, on average, about 2 hr later than it was during childhood.

B. Melatonin is released the same time it was during childhood.

C. Melatonin is released, on average, about 2 hr earlier than it was during childhood.

D. Melatonin is released in greater quantities during adolescence.

Ans: A

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Analysis

Answer Location: Sleep Patterns

Difficulty Level: Medium

19. Adolescents in Western countries such as the United States and Germany typically _____.

- A. get more than 9 hr of sleep per night
- B. get less than 9 hr of sleep per night
- C. sleep too long which results in more fatigue
- D. supplement sleep with melatonin capsules

Ans: B

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Knowledge

Answer Location: Sleep Patterns

Difficulty Level: Easy

20. Which is an example of a contextual factor that interferes with sleep patterns in adolescence?

- A. amount of melatonin released in the body
- B. device use before bedtime
- C. kisspeptin in the body
- D. the secular trend

Ans: B

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Comprehension

Answer Location: Sleep Patterns

Difficulty Level: Medium

21. Chan has been getting to school early for a meeting with his quiz bowl team as they are getting ready to compete. In order to keep up with his schoolwork, he has been on his laptop later and later in the evening. Even when he is finished, it seems to take his body more time to become sleepy even though he is tired throughout much of the day. This didn't happen when he was in elementary school, even when he went to before school practices. Chan is most likely experiencing the _____.

- A. fight or flight response
- B. HPG axis
- C. secular trend
- D. delayed phase preference

Ans: D

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Application

Answer Location: Sleep Patterns

Difficulty Level: Hard

22. Riverside High School's test scores have been dropping for several years since they instituted a start time before the middle and elementary schools. The test scores for the same students in middle school were all in line with state standards, and many are not now. The school board has recently learned about the delayed phase preference. With this knowledge, they have decided to delay start times that will greatly affect the students' _____ and hopefully test scores.

- A. amount of sleep

- B. cortisol levels
- C. substance use
- D. HPG axis

Ans: A

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Application

Answer Location: Sleep Patterns

Difficulty Level: Hard

23. Which factor is associated with poor sleep in adolescence?

- A. prepubertal growth
- B. depression
- C. leptin
- D. menarche

Ans: B

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Knowledge

Answer Location: Sleep Patterns

Difficulty Level: Easy

24. How does pubertal timing affect parent–child relationships?

- A. Pubertal timing is not a factor in the parent–child relationship.
- B. Only contextual factors affect the parent–child relationship.
- C. Early-maturing adolescents experience the parent–child conflict earlier.

D. Early-maturing adolescents experience the parent–child conflict later.

Ans: C

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Analysis

Answer Location: Parent–Adolescent Relationships

Difficulty Level: Medium

25. Maria is watching her son become a man right before her eyes. He has grown so much taller. He has developed an athletic musculature due to puberty and his involvement in sports. Maria knows he wants to date but she is just not ready for that to happen. This is creating a problem in their relationship as she is _____.

- A. allowing her son independence
- B. keeping him on the right path
- C. helping her child stay safe
- D. mourning the child she once had

Ans: D

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Application

Answer Location: Parent–Adolescent Relationships

Difficulty Level: Hard

26. Puberty is usually associated with _____ in the parent–child relationship.

- A. conflict
- B. depression
- C. violence

D. happiness

Ans: A

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Knowledge

Answer Location: Parent–Adolescent Relationships

Difficulty Level: Easy

27. Which rate of maturation results in the greatest challenges to adaptation?

- A. maturing at the same rate as other peers
- B. maturing before peers
- C. maturing after peers
- D. boys maturing before girls

Ans: B

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Knowledge

Answer Location: Pubertal Timing

Difficulty Level: Easy

28. Early-maturing boys and girls show higher rates of _____.

- A. risky activity
- B. achievement
- C. athleticism
- D. narcissism

Ans: A

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Analysis

Answer Location: Pubertal Timing

Difficulty Level: Medium

29. Caleb, a 13-year-old boy, is 6'2" tall. He has some well-developed musculature as well as a deep voice. Caleb is still just in middle school but when he meets people, they treat him as if he was older. Sometimes, his teachers talk to him like he should already know the information that they are teaching instead of being in the same position as the other students in the class. Caleb is most likely treated this way because he _____.

- A. matured on time
- B. matured late
- C. matured with all his peers
- D. matured early

Ans: D

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Application

Answer Location: Early Maturation

Difficulty Level: Hard

30. Susan is 13 years old but she looks a lot like her new 16-year-old friends. She has a boyfriend and attends high school events with her older friends. Susan's parents are concerned about her because _____.

- A. she is experiencing late maturation
- B. abusing drugs causes girls to experience menarche sooner
- C. late-maturing girls experience higher rates of anxiety and depression
- D. relative to other girls her age she has a higher risk for problematic drinking

Ans: D

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Application

Answer Location: Early Maturation

Difficulty Level: Hard

31. A pair of fraternal twins in high school are experiencing puberty later than their peers. Which outcome is most probably related to pubertal timing?

- A. Isais, the boy fraternal twin, was not popular in middle school.
- B. Tia, the girl twin, is experiencing depression.
- C. Isais, the boy fraternal twin, is engaging in high-risk behaviors.
- D. Tia, the girl twin, may have experienced adolescent dating abuse.

Ans: A

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Application

Answer Location: Early Maturation

Difficulty Level: Hard

32. Which scenario reflects a typical situation for an early-maturing girl?

- A. Aaliyah goes to sleep earlier now that she has hit puberty.
- B. Jenny is more physically active since starting puberty.
- C. Someone spread rumors about Tana's sexual activity around school.
- D. Keisha is more prone to delayed phase preference than her peers.

Ans: C

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Comprehension

Answer Location: Early Maturation

Difficulty Level: Medium

33. Early-maturing boys tend to be _____.

- A. rejected by peers
- B. depressed
- C. less athletic
- D. more athletic

Ans: D

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Knowledge

Answer Location: Early Maturation

Difficulty Level: Easy

34. How is alcohol use related to early maturation in boys?

- A. They tend to use alcohol earlier and persist in this use into early adulthood.
- B. They tend to stop using alcohol earlier than late-maturing boys.
- C. They tend to not use alcohol due to their increased athleticism.
- D. They tend to use alcohol less often than their late-maturing peers.

Ans: A

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Analysis

Answer Location: Early Maturation

Difficulty Level: Medium

35. In addition to fewer instances of teasing, which would late-maturing girls experience less relative to their peers?

- A. sleep deprivation
- B. appearance-related anxiety
- C. melatonin loss
- D. flight responses

Ans: B

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Knowledge

Answer Location: Late Maturation

Difficulty Level: Easy

36. How does pubertal timing relate to mental well-being in girls?

- A. Early maturation acts as a happiness boost for girls.
- B. Early maturation acts as a protective factor for depression in girls.
- C. Late maturation acts as a protective factor for depression in girls.
- D. Late maturation acts as a depressive factor for girls.

Ans: C

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Analysis

Answer Location: Late Maturation

Difficulty Level: Medium

37. Ryan, a 15-year-old boy, is the smallest boy in his high school class. His voice still hasn't dropped much and his musculature has not developed. He wants to play sports

but usually does not make the team. He really likes a girl in his English class, but she usually only looks at the much taller and larger boys. He has started to find himself more and more anxious and depressed due to his _____.

- A. peer maturation
- B. on-time maturation
- C. early maturation
- D. late maturation

Ans: D

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Application

Answer Location: Late Maturation

Difficulty Level: Hard

38. Which is a contextual explanation for problems that early maturers face?

- A. Early maturers tend to seek older adolescents for their peer group.
- B. Early maturers have an increase in melatonin.
- C. Early maturers have more irritability due to the HPG axis.
- D. Early maturers' endocrine system works faster than their peers.

Ans: A

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Comprehension

Answer Location: Context and the Effects of Pubertal Timing

Difficulty Level: Medium

39. Alyson, a 13-year-old girl, is an early maturer. Her body development is on the same pace as most of the 16-year-old girls in her neighborhood. After school, her peer group

tends to be older girls and boys. The inclusion of a lot of older boys into her peer group puts Alyson at risk for _____.

- A. peer rejection
- B. dating violence
- C. obesity
- D. delayed phase preference

Ans: B

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Application

Answer Location: Context and the Effects of Pubertal Timing

Difficulty Level: Hard

40. How is heredity related to pubertal timing?

- A. Heredity determines the exact age of pubertal timing.
- B. Heredity plays no role in pubertal timing.
- C. Heredity sets the boundaries for pubertal timing.
- D. Heredity sets the stage for melatonin release triggering puberty.

Ans: C

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Analysis

Answer Location: Genetics

Difficulty Level: Medium

41. Sophia and Olivia are 12-year-old identical twins. They have not yet experienced their menarche. They have both developed some secondary sex characteristics about the same time. Their mother had her menarche at age 13. The girls expect to experience their menarche at about the same time as each other due to their _____.

- A. 50% shared DNA
- B. contextual factors
- C. 100% shared DNA
- D. melatonin release

Ans: C

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Application

Answer Location: Genetics

Difficulty Level: Hard

42. From an evolutionary perspective, which biological trigger for puberty is adaptive?

- A. hormone release
- B. HPG axis
- C. high body weight and body fat
- D. estrogen increase

Ans: C

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Comprehension

Answer Location: Nutrition and Health

Difficulty Level: Medium

43. Which chemical stimulates the HPG axis to increase production and secretion of hormones?

- A. testosterone
- B. leptin

C. melatonin

D. kisspeptin

Ans: D

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Knowledge

Answer Location: Nutrition and Health

Difficulty Level: Easy

44. How is body mass index related to pubertal timing in girls?

A. Girls with a higher body mass index are triggered for puberty earlier.

B. Girls with a lower body mass index are triggered for puberty earlier.

C. Girls with a set body mass index are triggered for puberty later.

D. Girls with a higher body mass index are triggered for puberty later.

Ans: A

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Analysis

Answer Location: Nutrition and Health

Difficulty Level: Medium

45. Carla, a 12-year-old girl, is overweight for her age and height. She does not play any sports and is not very physically active. She is menstruating regularly. Her mother did not have her menarche until she was 15 years old. Carla's early pubertal timing may be due to _____.

A. heredity

B. higher body mass index

C. lower amounts of body fat

D. an eating disorder

Ans: B

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Application

Answer Location: Nutrition and Health

Difficulty Level: Hard

46. Which contextual factor can affect hormone production throughout the life span?

A. ethnicity

B. secular trend

C. stress

D. heredity

Ans: C

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Knowledge

Answer Location: Stress

Difficulty Level: Easy

47. Which question is a researcher focused on family stress most likely to ask about pubertal timing in girls?

A. When was your child's menarche?

B. When did your child exhibit the delayed phase preference?

C. When did your child experience a growth spurt?

D. Was your child sedentary before puberty?

Ans: A

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Comprehension

Answer Location: Stress

Difficulty Level: Medium

48. Jackie, an 11-year-old girl, has recently been through her parents' divorce. As a result of the divorce, her mother has begun dating again. Next month, her mother plans to move her boyfriend into the house. This stress and an unrelated male in the household may have which affect on Jackie?

- A. absence of a menarche
- B. on-time menarche
- C. late menarche
- D. early menarche

Ans: D

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Application

Answer Location: Stress

Difficulty Level: Hard

49. What is the relationship between pubertal timing and socioeconomic status?

- A. Lower socioeconomic status is related to early onset of puberty.
- B. Lower socioeconomic status is related to late onset of puberty.
- C. Higher socioeconomic status is related to early onset of puberty.
- D. Higher socioeconomic status is related to late onset of puberty.

Ans: A

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Analysis

Answer Location: Socioeconomic Status and Ethnicity

Difficulty Level: Medium

50. Ethnic differences in pubertal timing are greatly reduced or disappear when _____ is controlled for.

- A. genetics
- B. socioeconomic status
- C. obesity
- D. melatonin

Ans: B

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Knowledge

Answer Location: Socioeconomic Status and Ethnicity

Difficulty Level: Easy

51. A scientist focused on early onset of puberty among peer groups and ethnicities is most likely interested in _____.

- A. genetics
- B. delayed phase preference
- C. low socioeconomic status
- D. eating disorders

Ans: C

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Comprehension

Answer Location: Socioeconomic Status and Ethnicity

Difficulty Level: Medium

52. Rosa, a 12-year-old girl, is rarely allowed to play outside due to her neighborhood crime level. Her mother is just barely able to pay rent and put food on the table for both of them. The food that Rosa eats is not the most nutritious or fresh but she is able to eat more fruit at school. Rosa and her mother have a good relationship but she can still feel her mother's stress due to their situation. Rosa may be at risk for _____.

- A. increased melatonin production
- B. delayed phase preference
- C. late onset of puberty
- D. early onset of puberty

Ans: D

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Application

Answer Location: Socioeconomic Status and Ethnicity

Difficulty Level: Hard

53. The lowering of the average age of puberty from prehistoric times to present day is known as _____.

- A. the secular trend
- B. delayed phase preference
- C. HPG axis
- D. the gonadarche

Ans: A

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Knowledge

Answer Location: Secular Trend

Difficulty Level: Easy

54. Ann's daughter, Chloe, has just experienced her menarche at age 12. Chloe has normal body weight with a lot of physical activity in her day. Ann remembers that she had her menarche at age 13 while her mother, Chloe's grandmother, experienced hers at age 14. This exemplifies the _____.

- A. delayed phase preference
- B. secular trend
- C. HPG axis
- D. adrenarche

Ans: B

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Application

Answer Location: Secular Trend

Difficulty Level: Hard

55. Adolescents consume about one half of the daily recommended fruits and vegetables, while their bodies require more calories and energy due to _____.

- A. delayed phase preference
- B. health literacy
- C. the adolescent growth spurt
- D. increased lung capacity

Ans: C

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Knowledge

Answer Location: Nutrition

Difficulty Level: Easy

56. Which behavior is associated with healthier eating habits into young adulthood?

- A. electronic device use
- B. stress responses
- C. skipping breakfast
- D. family meals

Ans: D

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Comprehension

Answer Location: Nutrition

Difficulty Level: Medium

57. The decline in physical activity tends to begin in _____.

- A. early adolescence
- B. middle adolescence
- C. early childhood
- D. middle childhood

Ans: D

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Knowledge

Answer Location: Physical Activity and Exercise

Difficulty Level: Easy

58. How are contextual factors related to physical activity?

- A. Physical activity is lower among adolescents across all contextual factors.
- B. Physical activity is not affected by contextual factors among adolescents.
- C. Physical activity is higher among adolescents across all contextual factors.
- D. Physical activity is only affected by the contextual factor of electronic use among adolescents.

Ans: A

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Analysis

Answer Location: Physical Activity and Exercise

Difficulty Level: Medium

59. Chandler is in the 96th percentile in weight for his height and age. He eats a Western-style diet like most of his peers. Chandler does not participate in any extracurricular sports and rarely gets any vigorous physical exercise. Chandler would most likely be classified as _____.

- A. overweight
- B. obese
- C. fit
- D. healthy

Ans: B

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Application

Answer Location: Obesity

Difficulty Level: Hard

60. How is socioeconomic status related to obesity?

- A. Higher socioeconomic status adolescents have greater risk for obesity.
- B. Lower socioeconomic status adolescents have greater risk for obesity.
- C. Socioeconomic status does not factor into risk for obesity.
- D. Socioeconomic status is the only factor for adolescent risk for obesity.

Ans: B

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Analysis

Answer Location: Obesity

Difficulty Level: Medium

61. Which eating disorder is characterized by periods of overeating and purging?

- A. binge eating disorder
- B. anorexia nervosa
- C. bulimia nervosa
- D. delayed phase preference

Ans: C

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Knowledge

Answer Location: Anorexia Nervosa and Bulimia Nervosa

Difficulty Level: Easy

62. Which eating disorder is characterized by self-starvation and a body weight substantially lower than normal for height and age?

- A. bulimia nervosa
- B. binge eating disorder
- C. anorexia nervosa
- D. delayed phase preference

Ans: C

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Knowledge

Answer Location: Anorexia Nervosa and Bulimia Nervosa

Difficulty Level: Easy

63. A researcher interested in understanding purging behaviors would most likely focus on _____.

- A. delayed phase preference
- B. anorexia nervosa
- C. binge eating disorder
- D. bulimia nervosa

Ans: D

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Comprehension

Answer Location: Anorexia Nervosa and Bulimia Nervosa

Difficulty Level: Medium

64. What statement is true about lesbian, gay, and bisexual (LGB) adolescents and eating disorders?

- A. They experience fewer rates of disordered eating than their peers.
- B. They have the same risks for disordered eating as their peers.
- C. They experience more risks for disordered eating than their peers.
- D. They do not have any risk factors for disordered eating.

Ans: C

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Analysis

Answer Location: Anorexia Nervosa and Bulimia Nervosa

Difficulty Level: Medium

65. Which is an example of bulimia nervosa?

- A. Tara is preoccupied with being thin and has begun to starve herself to achieve this body type.
- B. Tara eats away from everyone else and feels out of control while eating large amounts of food.
- C. Tara eats uncontrollably and then uses laxatives to rid her body of the food she just ingested.
- D. Tara is substantially lower in weight for her height and age while still seeing herself as “heavy.”

Ans: C

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Comprehension

Answer Location: Anorexia Nervosa and Bulimia Nervosa

Difficulty Level: Medium

66. A scientist interested in self-starvation would focus on _____.

- A. binge eating disorder
- B. delayed phase preference
- C. bulimia nervosa
- D. anorexia nervosa

Ans: D

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Comprehension

Answer Location: Anorexia Nervosa and Bulimia Nervosa

Difficulty Level: Medium

67. Keisha, a 15-year-old girl, is preoccupied with being thin. She has a very low BMI and has stopped menstruating. She believes she is “fat” whenever she looks at herself in the mirror. She has begun to only eat “raw” foods and drink water every day. Keisha believes that she must be “perfect” for anyone to pay attention to her. She most likely suffers from _____.

- A. anorexia nervosa
- B. bulimia nervosa
- C. binge eating
- D. depression

Ans: A

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Application

Answer Location: Anorexia Nervosa and Bulimia Nervosa

Difficulty Level: Hard

68. Which is an example of binge eating disorder?

- A. Kayla is preoccupied with being thin and has begun to starve herself to achieve this body type.
- B. Kayla eats away from everyone else and feels out of control while eating large amounts of food.
- C. Kayla eats uncontrollably and then uses laxatives to rid her body of the food she just ingested.
- D. Kayla is substantially lower in weight for her height and age while still seeing herself as “heavy.”

Ans: B

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Comprehension

Answer Location: Binge Eating Disorder

Difficulty Level: Medium

69. Joey, a 17-year-old African American male, lives in the inner city. He is a good student and plays sports for his school. He lives with his mother and brother in an apartment building. His neighborhood does not have safe places for him to be outside or gather with his friends. His mother has a job, but they are still classified as having a lower socioeconomic status. Joey has _____.

- A. a lower risk for mortality
- B. a higher risk for mortality
- C. the same risk for homicide as all adolescents
- D. a lower risk for homicide

Ans: B

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Application

Answer Location: Mortality

Difficulty Level: Hard

70. Carter, a 16-year-old boy, is scheduled to have his sports examination for school. Carter is homosexual. He is afraid to discuss this with the doctor. The last time he saw the doctor and attempted to discuss his orientation, the doctor seemed to be uncomfortable with the topic. This left Carter feeling as though he could not be honest with the doctor. Carter is experiencing _____ due to his sexual orientation.

- A. health literacy
- B. health care access
- C. unmet medical needs
- D. body dissatisfaction

Ans: C

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Application

Answer Location: Health Care Access

Difficulty Level: Hard

True/False

1. The endocrine system produces and regulates the levels of hormones in the body.

Ans: T

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Knowledge

Answer Location: The Endocrine System

Difficulty Level: Easy

2. The adrenal glands secrete low levels of estrogen and hormones that support body growth.

Ans: F

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Knowledge

Answer Location: Adrenarche

Difficulty Level: Easy

3. Adolescent bodies appear to be lanky and awkward due to the pattern of growth from the torso outward to the extremities and finally the fingers and toes.

Ans: F

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Comprehension

Answer Location: Body Shape and Size

Difficulty Level: Medium

4. Health education classes help to reduce fright about menstruation in girls.

Ans: T

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Comprehension

Answer Location: Subjective Experience of Pubertal Events

Difficulty Level: Medium

5. Adolescents go to sleep earlier due to the delayed phase preference increasing the melatonin their bodies release.

Ans: F

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Comprehension

Answer Location: Sleep Patterns

Difficulty Level: Medium

6. To reduce a sleep deficit, it is advantageous and effective for adolescents to "catch up" on sleep on the weekends.

Ans: F

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Comprehension

Answer Location: Sleep Patterns

Difficulty Level: Medium

7. Early-maturing girls are more at risk for dating violence than late-maturing girls.

Ans: T

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Knowledge

Answer Location: Early Maturation

Difficulty Level: Easy

8. Popularity is a characteristic for early-maturing boys and girls.

Ans: T

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Comprehension

Answer Location: Early Maturation

Difficulty Level: Medium

9. The peer group is a contextual factor that does not have any effect on the experience of puberty.

Ans: F

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Comprehension

Answer Location: Context and the Effects of Pubertal Timing

Difficulty Level: Medium

10. The accumulation of leptin is important in the influence of pubertal timing.

Ans: T

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Knowledge

Answer Location: Nutrition and Health

Difficulty Level: Easy

11. The experience of extreme stress can speed up the timing of the menarche.

Ans: T

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Comprehension

Answer Location: Stress

Difficulty Level: Medium

12. The secular trend is the increased age at which puberty occurs with each generation.

Ans: F

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Knowledge

Answer Location: Secular Trend

Difficulty Level: Easy

13. Physical activity begins to decline at around age 7.

Ans: T

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Knowledge

Answer Location: Physical Activity and Exercise

Difficulty Level: Easy

14. An individual with bulimia is characterized by self-starvation.

Ans: F

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Comprehension

Answer Location: Anorexia Nervosa and Bulimia Nervosa

Difficulty Level: Medium

15. LGB adolescents report more unmet medical needs than their heterosexual peers.

Ans: T

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Comprehension

Answer Location: Health Care Access

Difficulty Level: Medium

Short Answer

1. How are the hormone levels of testosterone and estrogen related to pubertal development?

Ans: Both sexes have testosterone and estrogen, but the levels differ based on sex. Boys have a much higher level of testosterone to estrogen, while girls have a higher level of estrogen to testosterone in pubertal development.

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Analysis

Answer Location: Hypothalamus–Pituitary–Gonadal Axis

Difficulty Level: Medium

2. Explain why the adrenarche is important for puberty.

Ans: The adrenarche occurs before puberty. It is the activation of the adrenal glands which are necessary for the body's metabolism. This is important as the trigger for

puberty is an increase in body fat. While this is important for puberty, the adrenarche is separate from puberty.

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Comprehension

Answer Location: Adrenarche

Difficulty Level: Medium

3. Why is puberty referred to as a “subjective” experience?

Ans: Culture can play a large role in how an adolescent experiences puberty. The more communication from parents and health education classes, the smoother transition to puberty for the adolescent. On the other extreme, a culture that does not discuss these bodily changes can produce an adolescent who is scared of puberty and can even experience shame with the changes in their body.

Learning Objective: 2.2: Describe adolescents’ experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Analysis

Answer Location: Subjective Experience of Pubertal Events

Difficulty Level: Medium

4. How is melatonin related to the delayed phase preference?

Ans: The delayed phase preference is triggered by melatonin. Melatonin tells the body that it is ready for sleep. With the delayed phrase preference, this melatonin release occurs about 2 hr later in adolescence than it did in childhood.

Learning Objective: 2.2: Describe adolescents’ experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Analysis

Answer Location: Sleep Patterns

Difficulty Level: Medium

5. How is late maturation in puberty related to girls?

Ans: Late maturation seems to act as a protective factor for the development of depression in girls. They also have less anxiety about their appearance which may be due to the lack of teasing from peers about maturation when compared with early-maturing girls.

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Analysis

Answer Location: Late Maturation

Difficulty Level: Medium

6. How is the choice of peer group in adolescence influenced by pubertal timing?

Ans: Early-maturing boys and girls tend to find an older peer group, which makes risk-taking behavior rise. This may also result in more sexual risk-taking behavior.

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Analysis

Answer Location: Context and the Effects of Pubertal Timing

Difficulty Level: Medium

7. How is timing of puberty related to malnutrition?

Ans: Malnutrition prevents the necessary body fat stores that trigger puberty from occurring. This translates into a later development. A menarche for girls may occur several years later than if the proper nutrients were present in the body.

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Analysis

Answer Location: Nutrition and Health

Difficulty Level: Medium

8. How is a low socioeconomic status related to early menarche in girls?

Ans: Lower socioeconomic status is correlated with more stress at home and fewer opportunities for safe physical activity along with proper nutrition. These factors, along with girls' perceptions of how dangerous their neighborhood is, have predicted an early menarche.

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Analysis

Answer Location: Socioeconomic Status and Ethnicity

Difficulty Level: Medium

9. How is a low socioeconomic status related to physical activity in adolescents?

Ans: It has been found that adolescents from a lower socioeconomic background are more likely to be sedentary and obese than their peers from higher socioeconomic backgrounds. This is most likely due to lack of opportunities for physical development, safe outdoor spaces, and opportunities for extracurricular activities.

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Analysis

Answer Location: Physical Activity and Exercise

Difficulty Level: Medium

10. Explain the difference between overweight and obese.

Ans: BMI is the statistic used to determine terms such as overweight and obese. Overweight refers to a BMI in the 85th percentile or above in height and weight. Obese refers to a BMI in the 95th percentile or above for height and weight.

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Comprehension

Answer Location: Obesity

Difficulty Level: Medium

Essay

1. Illustrate the process of primary sex characteristics for boys and girls.

Ans: For boys, the growth of the testes is the first primary sex characteristic to emerge. This is followed by the growth of the penis and scrotum. As the penis grows, the prostate gland and seminal vesicles begin to produce semen. The first ejaculation, known as the spermarche, occurs at about age 13, which is the principal sign of sexual maturity. In girls, the menarche marks sexual maturity. The uterine lining thickens each month in preparation for a fertilized egg. When this does not occur, monthly shedding of the uterine lining, known as menstruation, occurs.

Learning Objective: 2.1: Summarize the physical changes that accompany puberty in boys and girls.

Cognitive Domain: Comprehension

Answer Location: Primary Sex Characteristics

Difficulty Level: Medium

2. Explain and provide an example of how culture and/or religion can affect a girl's response to menstruation.

Ans: Varies. Culture can play a role in preparing a girl's response to menstruation positively and negatively. The more communication between parent and child, the better the response to puberty and menstruation. In some cultures, bodily changes are not talked about which leads to more surprise when the menarche does occur. This surprise can lead to negative feelings about puberty. Some cultures may go as far as secluding the menstruating girl from activities and/or school. This would create a negative experience around menstruation. In some religions and cultures, the surprise of menstruation can become fear and/or shame about menstruation and their bodies. Examples will vary.

Learning Objective: 2.2: Describe adolescents' experience of puberty and its influence on their relationships with parents.

Cognitive Domain: Application

Answer Location: Subjective Experience of Pubertal Events

Difficulty Level: Hard

3. Create a profile of an early-maturing boy or girl.

Ans: Varies. Early-maturing characteristics in a girl could include popularity, increased risk of dating violence, increased risk of sexual harassment, risky behaviors, higher rates of depression and anxiety, and lower self-esteem. Early-maturing characteristics in a boy could include popularity, increased confidence, increased risk of substance use and risky behaviors, increased athleticism, and increased aggressive behaviors. Example profiles will vary.

Learning Objective: 2.3: Examine the effects of pubertal timing on adolescents.

Cognitive Domain: Application

Answer Location: Early Maturation

Difficulty Level: Hard

4. Explain the secular trend and its relationship to pubertal timing.

Ans: The secular trend is the lowering age of puberty with each generation to the present. Physical health and contextual factors underlie this trend from prehistoric times to the present. The negative correlation between higher BMI and lower age of puberty as well as higher standards of living and lower age of puberty can be seen in developed countries. For most industrialized countries, it seems that the secular trend has slowed or stopped for the most part. It seems that these two concepts of the secular trend, lowering of age of puberty, coupled with the triggers for pubertal timing and intricately tied together.

Learning Objective: 2.4: Analyze influences on pubertal timing.

Cognitive Domain: Analysis

Answer Location: Secular Trend

Difficulty Level: Medium

5. How is socioeconomic status related to adolescent mortality?

Ans: About 70% of adolescent deaths due to fatal injuries are due to accidents, suicide, and homicide. These rates were on the decline until about 2013 when the rates began increasing. Boys have about twice the mortality rate than girls during adolescence. Minority males who live in lower socioeconomic status have about twice the mortality rate than their peers in higher socioeconomic areas. This economic disadvantage is a larger predictor of violence in urban settings. Although White non-Hispanic adolescents show higher rates of suicide than their minority peers, for minorities who have an increased risk of suicide, poverty has been found to be a contributing factor.

Learning Objective: 2.5: Discuss common health problems in adolescence and ways of promoting health.

Cognitive Domain: Analysis

Answer Location: Mortality

Difficulty Level: Medium