

Total Fitness and Wellness, 7e (Powers)

Chapter 2 General Principles of Exercise for Health and Fitness

2.1 Multiple-Choice Questions

1) With regard to physical fitness, the overload principle can be defined as

- A) lifting too much weight during a weight-lifting procedure.
- B) stressing the body or a muscle group during exercise to improve physical fitness.
- C) overloading the body with prolonged exercise, which results in muscular damage.
- D) overuse of tendons during exercise to produce gains in strength.

Answer: B

Diff: 1

Skill: Remembering

LO: 2.1

Section: 2.1

2) The principle of progression states that

- A) overload should be increased gradually during training.
- B) an exercise training session should be followed by a recovery period.
- C) an exercise training session should progress rapidly.
- D) overload should progress quickly in the first two weeks of training.

Answer: A

Diff: 1

Skill: Remembering

LO: 2.1

Section: 2.1

3) The principle of training that states the body must be stressed in order to improve physical fitness is the

- A) principle of specificity.
- B) 10% rule.
- C) principle of recuperation.
- D) overload principle.

Answer: D

Diff: 1

Skill: Remembering

LO: 2.1

Section: 2.1

4) For a safe progression in training, it is recommended that the intensity or duration of exercise be increased no more than _____ per week.

- A) 5%
- B) 10%
- C) 15%
- D) 20%

Answer: B

Diff: 2

Skill: Understanding

LO: 2.1

Section: 2.1

5) An exercise routine designed to sustain a certain fitness level is called a(n)

- A) exercise prescription.
- B) sustaining schedule.
- C) principle of progression.
- D) maintenance program.

Answer: D

Diff: 1

Skill: Remembering

LO: 2.1

Section: 2.1

6) The principle of _____ states that the effect of exercise training is specific to those muscles involved in the activity.

- A) progression
- B) reversibility
- C) specificity
- D) recuperation

Answer: C

Diff: 1

Skill: Remembering

LO: 2.1

Section: 2.1

7) The principle of _____ states that a period of rest between exercise training sessions is critical for maximal improvement in physical fitness.

- A) progression
- B) overload
- C) recuperation
- D) economy

Answer: C

Diff: 1

Skill: Remembering

LO: 2.1

Section: 2.1

8) The amount of rest required between vigorous exercise bouts is generally

- A) 8-12 hours.
- B) 12-24 hours.
- C) 24-48 hours.
- D) 2-3 days.

Answer: C

Diff: 2

Skill: Understanding

LO: 2.1

Section: 2.1

9) Failure to get adequate rest between workouts is referred to as

- A) general adaptation syndrome.
- B) rebounding.
- C) chronic fatigue syndrome.
- D) overtraining.

Answer: D

Diff: 1

Skill: Remembering

LO: 2.1

Section: 2.1

10) Physical fitness can be lost due to inactivity; this outcome is described by the _____ principle.

- A) overload
- B) progression
- C) recuperation
- D) reversibility

Answer: D

Diff: 2

Skill: Understanding

LO: 2.1

Section: 2.1

11) Too much exercise can impair the body's _____ and increase the risk of infections such as a cold or the flu.

- A) central nervous system
- B) cardiovascular system
- C) immune system
- D) ability to excrete toxins

Answer: C

Diff: 2

Skill: Understanding

LO: 2.1

Section: 2.1

12) Establishing _____ is an important first step in designing an appropriate exercise training program.

- A) weight-loss goals
- B) a comfortable workout wardrobe
- C) a firm workout schedule
- D) short-term and long-term fitness goals

Answer: D

Diff: 2

Skill: Applying

LO: 2.2

Section: 2.2

13) The period of light exercise prior to the workout is called a

- A) flexibility test.
- B) warm-up.
- C) set of light reps.
- D) cool-down.

Answer: B

Diff: 1

Skill: Remembering

LO: 2.2

Section: 2.2

14) The intensity level of a cool-down period following the workout should be

- A) low.
- B) moderate.
- C) high.
- D) the same intensity as the workout.

Answer: A

Diff: 2

Skill: Applying

LO: 2.2

Section: 2.2

15) All of the following are major components of the exercise prescription that define the workout *except*

- A) duration.
- B) frequency.
- C) speed.
- D) intensity.

Answer: C

Diff: 1

Skill: Remembering

LO: 2.2

Section: 2.2

- 16) The term "mode of exercise" describes the
- A) specific type of exercise performed.
 - B) intensity with which an exercise is performed.
 - C) duration of an exercise session.
 - D) range of movement required by an exercise.

Answer: A

Diff: 2

Skill: Remembering

LO: 2.2

Section: 2.2

- 17) Which of the following is an example of a low-impact activity?
- A) kickboxing
 - B) running
 - C) volleyball
 - D) swimming

Answer: D

Diff: 2

Skill: Understanding

LO: 2.2

Section: 2.2

- 18) Which of the following statements is true about high-impact activities?
- A) High-impact activities are less taxing on the body's bones.
 - B) High-impact activities place great stress on the body's joints.
 - C) High-impact activities are better for overall fitness than low-impact activities.
 - D) High-impact activities include swimming and cycling.

Answer: B

Diff: 3

Skill: Analyzing

LO: 2.2

Section: 2.2

- 19) The segment of time referred to as the "workout" is also known as the
- A) primary conditioning period.
 - B) warm-up period.
 - C) cool-down period.
 - D) interval.

Answer: A

Diff: 1

Skill: Remembering

LO: 2.2

Section: 2.2

20) During the cool-down,

- A) blood tends to pool in the muscles used during exercise.
- B) temperature drops and blood returns from the muscles to the heart.
- C) accumulated sweat is reabsorbed into the skin.
- D) temperature rises, allowing the body to readjust to normal body temperature.

Answer: B

Diff: 2

Skill: Understanding

LO: 2.2

Section: 2.2

21) All exercise programs should be individualized. Therefore, an exercise prescription should consider the individual's age and

- A) gender.
- B) genetics.
- C) fitness status.
- D) weight.

Answer: C

Diff: 2

Skill: Understanding

LO: 2.2

Section: 2.2

22) The minimum level of exercise required to achieve some health benefits is called the

- A) minimum fitness target.
- B) minimum daily requirement.
- C) threshold for weight loss.
- D) threshold for health benefits.

Answer: D

Diff: 3

Skill: Remembering

LO: 2.3

Section: 2.3

23) U.S. government physical activity guidelines recommend that adults perform at least _____ minutes of moderate-intensity exercise each week to improve health and reduce risk of illness.

- A) 60
- B) 100
- C) 150
- D) 175

Answer: C

Diff: 2

Skill: Understanding

LO: 2.3

Section: 2.3

24) Evidence indicates that 30 to 60 minutes of _____ exercise performed 3 to 5 days per week will provide major health benefits and reduce the risk of all causes of death.

- A) low-intensity
- B) moderate-intensity
- C) moderate-to-high-intensity
- D) high-intensity

Answer: C

Diff: 2

Skill: Understanding

LO: 2.3

Section: 2.3

25) Which of the following is *not* a barrier to physical activity?

- A) lack of employment
- B) lack of resources
- C) lack of motivation
- D) lack of time

Answer: A

Diff: 2

Skill: Understanding

LO: 2.4

Section: 2.4

2.2 True/False Questions

1) The principle of progression is an extension of the overload principle.

Answer: TRUE

Diff: 2

Skill: Understanding

LO: 2.1

Section: 2.1

2) A period of rest between training sessions is essential to achieve optimal physical fitness.

Answer: TRUE

Diff: 2

Skill: Understanding

LO: 2.1

Section: 2.1

3) To ensure the best fit when buying a new pair of exercise shoes, always shop for them in the morning.

Answer: FALSE

Diff: 2

Skill: Remembering

LO: 2.1

Section: 2.1

4) Overload can only be increased by increasing the intensity of exercise.

Answer: FALSE

Diff: 2

Skill: Understanding

LO: 2.1

Section: 2.1

5) After cessation of training, muscular strength is lost faster than muscular endurance.

Answer: FALSE

Diff: 3

Skill: Understanding

LO: 2.1

Section: 2.1

6) Exercise goals are considered to be a part of the exercise prescription.

Answer: TRUE

Diff: 2

Skill: Understanding

LO: 2.2

Section: 2.2

7) Every exercise prescription must include at least one type of exercise.

Answer: TRUE

Diff: 1

Skill: Understanding

LO: 2.2

Section: 2.2

8) The primary purpose of a warm-up is to activate the central nervous system.

Answer: FALSE

Diff: 2

Skill: Understanding

LO: 2.2

Section: 2.2

9) The components of the workout are called the FITT principle, which stands for frequency, intensity, time, and tension.

Answer: FALSE

Diff: 1

Skill: Remembering

LO: 2.2

Section: 2.2

10) A primary purpose of a cool-down is to return blood from the muscles worked back toward the heart.

Answer: TRUE

Diff: 2

Skill: Understanding

LO: 2.2

Section: 2.2

11) For a person to achieve health benefits, exercise must be performed at a high intensity and for at least 1 hour per day.

Answer: FALSE

Diff: 2

Skill: Applying

LO: 2.2

Section: 2.2

12) The current public health recommendation for physical activity is a minimum of 10 minutes of moderate to intense physical activity each day.

Answer: FALSE

Diff: 2

Skill: Understanding

LO: 2.3

Section: 2.3

2.3 Essay Questions

1) How does the principle of progression apply to the exercise prescription?

Answer: The principle of progression is an extension of the overload principle. It states that overload should be increased gradually during the course of a physical fitness program.

Diff: 3

Skill: Understanding

LO: 2.1

Section: 2.1

2) Why is the 10% rule important in regard to the progression of exercise training?

Answer: The 10% rule states that the training intensity or duration of exercise should be increased by no more than 10% per week. This is a common-sense guideline for improving physical fitness and avoiding overuse injuries.

Diff: 3

Skill: Understanding

LO: 2.1

Section: 2.1

3) Define the following terms: *overtraining* and *principle of recuperation*.

Answer: Overtraining is the failure to get adequate rest between exercise sessions, which results in fatigue and can lead to injuries. A common symptom is sore and stiff muscles or a feeling of general fatigue the morning after an exercise session, sometimes called a "workout hangover." The principle of recuperation states that the body requires recovery periods between exercise training sessions to adapt to the exercise stress. Therefore, a period of rest is essential to achieve maximal benefit from exercise.

Diff: 2

Skill: Understanding

LO: 2.1

Section: 2.1

4) What happens to physical fitness if you stop training?

Answer: Detraining occurs. This loss of fitness due to inactivity is an example of the principle of reversibility.

Diff: 2

Skill: Understanding

LO: 2.1

Section: 2.1

5) List the essential components of an exercise prescription.

Answer: Components of an exercise prescription include fitness goals, mode of exercise (type of activity), a warm-up, a primary conditioning period, and a cool-down.

Diff: 1

Skill: Remembering

LO: 2.2

Section: 2.2

6) What is the general purpose of the warm-up and cool-down?

Answer: The purpose of a warm-up is to elevate muscle temperature and increase blood flow to those muscles that will be engaged in the workout. A primary purpose of a cool-down is to allow blood to be returned from the muscles back to the heart.

Diff: 3

Skill: Understanding/Applying

LO: 2.2

Section: 2.2

7) What modality of physical activity is optimal to obtain health benefits?

Answer: This question has no definitive answer. However, it is clear that any one or more of the many types of exercise (e.g. running, swimming, cycling, walking, strength training, sports) can be used to achieve exercise-related health benefits. It is up to individuals to choose activities that they enjoy so they are motivated to maintain their exercise program.

Diff: 3

Skill: Applying

LO: 2.2

Section: 2.2

8) Explain why individualizing the workout is important.

Answer: Although the same general principles of exercise training apply to everyone, no two people are the same. Therefore, the exercise prescription should consider such factors as the individual's general health, age, fitness status, musculoskeletal condition, and body composition.

Diff: 3

Skill: Understanding/Applying

LO: 2.2

Section: 2.2

9) Explain the difference between exercise training to improve sport performance and exercising for health benefits.

Answer: Exercise training for sport performance usually involves long workouts and high-intensity exercise. These workouts are focused on improving specific skills such as agility, speed, or power in playing a particular sport. Exercising for health benefits does not require excessive time or intensity to be beneficial. Any increase in activity level can provide benefits; current U.S. government guidelines recommend at least 150 minutes of moderate-intensity exercise per week to experience health benefits.

Diff: 3

Skill: Understanding/Analyzing

LO: 2.3

Section: 2.3

10) List some common barriers to physical activity.

Answer: The most common barriers to engaging in physical activity are lack of time, social and environmental influences, inadequate resources, and lack of motivation and commitment.

Diff: 2

Skill: Understanding

LO: 2.4

Section: 2.4