

Name: _____

Date: _____

Answer Key: Feel the Burn! 8th Grade Exercise Science Quiz

Assess basic comprehension of heart rates, muscle function, and energy fuels across 10 varied questions.

1. When you start a fast game of tag, your heart begins to beat much faster. This immediate change is known as a(n):

Answer: B) Acute response

Acute responses are the immediate physiological changes that occur as soon as you begin physical activity, like an increased heart rate.

2. The _____ system is the primary energy source for long-distance activities, such as a 30-minute bike ride, because it uses oxygen.

Answer: C) Aerobic

The aerobic system relies on oxygen to break down fuel for energy during long-duration, steady exercise.

3. Regularly lifting weights over several months causes the heart and muscles to undergo chronic adaptations.

Answer: A) True

Chronic adaptations are the long-term changes that happen to the body's systems as a result of consistent, repeated exercise.

4. During a very heavy pull-up, your muscles might feel a temporary 'burn.' This is usually caused by the buildup of:

Answer: B) Lactic acid

When muscles work intensely with little oxygen, they produce lactic acid, which creates a burning sensation.

5. The time spent after a workout where your body repairs tissues and replenishes energy stores is called _____.

Answer: D) Recovery

Recovery is the vital process where the body heals from the stress of exercise to become stronger.

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6. A marathon runner primarily uses the ATP-PC system to finish the entire 26-mile race.

Answer: B) False

The ATP-PC system is for very short bursts of power (seconds). A marathon requires the aerobic system for endurance.

7. Which of these is a chronic adaptation to consistent cardiovascular training like swimming?

Answer: C) Lower resting heart rate

Fitness improves the heart's efficiency, meaning it doesn't have to beat as often when you are resting.

8. During a 100-meter dash, your body uses the _____ system for a quick, powerful burst of speed that lasts less than 15 seconds.

Answer: B) ATP-PC

The ATP-PC system provides immediate energy for high-intensity movements that last only a few seconds.

9. Why does your breathing rate increase when you start dancing or playing soccer?

Answer: C) To take in more oxygen for the muscles

Active muscles require more oxygen to create energy, so the lungs work harder to pull in more air.

10. Stretching and cooling down after exercise helps the body transition into recovery mode more effectively.

Answer: A) True

Cool-downs help gradually lower the heart rate and begin the process of clearing waste products from the muscles.