

Basketball: Human Body and Health Facts

Basketball · Answer Key · 12 Questions

1. Which major muscle group is primarily responsible for the explosive jumping motion in basketball?

- A) Biceps brachii
- B) Quadriceps femoris**
- C) Deltoids
- D) Pectoralis major

2. The repetitive jumping and landing in basketball can significantly stress which joint in the lower body?

- A) Ankle**
- B) Hip
- C) Elbow
- D) Wrist

3. What physiological adaptation occurs in the cardiovascular system with regular basketball training, improving endurance?

- A) Decreased red blood cell count
- B) Increased stroke volume**
- C) Reduced lung capacity
- D) Lowered resting heart rate

4. Which type of muscle fiber is most dominant in basketball players, contributing to quick bursts of speed and power?

- A) Slow-twitch oxidative fibers
- B) Fast-twitch glycolytic fibers**
- C) Slow-twitch fatigue-resistant fibers
- D) Intermediate twitch fibers

5. Dehydration in basketball players can lead to a significant decrease in performance, primarily due to:

- A) Increased muscle mass
- B) Reduced blood volume and impaired thermoregulation**
- C) Enhanced cognitive function
- D) Lowered body temperature

6. The flexibility and range of motion required for dribbling and shooting in basketball heavily involve which joint?

- A) Knee
- B) Ankle
- C) Shoulder**
- D) Hip

7. Which bone is most commonly fractured in basketball due to direct impact or falls?

- A) Femur
- B) Tibia
- C) Clavicle**
- D) Humerus

8. The ability to change direction quickly and efficiently on the court, a hallmark of good basketball players, relies on the strength and stability of the:

- A) Upper back muscles
- B) Core muscles (abdominal and back)**
- C) Forearm muscles
- D) Neck muscles

9. What nutrient is crucial for muscle repair and growth in athletes who participate in demanding sports like basketball?

- A) Simple carbohydrates
- B) Dietary fiber
- C) Protein**
- D) Saturated fats

10. The constant pivoting and cutting in basketball puts significant rotational stress on which joint, making it susceptible to ligament injuries?

- A) Wrist
- B) Elbow
- C) Ankle
- D) Knee**

11. Which sensory system is vital for a basketball player's ability to judge distances, anticipate ball trajectory, and coordinate movements?

- A) Gustatory system (taste)
- B) Olfactory system (smell)
- C) Vestibular system (balance and spatial orientation)**
- D) Auditory system (hearing)

12. The rapid acceleration and deceleration in basketball contribute to the development of which bone health benefit over time?

A) Osteoporosis

B) Increased bone density

C) Stress fractures

D) Reduced bone strength