

Sports Medicine Essentials

Sports Medicine · Practice Test · 25 Questions

1. Which protein is the primary structural component of tendons and ligaments?

- A) Elastin
- B) Collagen
- C) Keratin
- D) Myosin

2. What is the medical term for the inflammation of a tendon?

- A) Tendinosis
- B) Tenosynovitis
- C) Tendinitis
- D) Fasciitis

3. Which type of joint movement occurs when a limb is moved away from the midline of the body?

- A) Adduction
- B) Flexion
- C) Abduction
- D) Extension

4. What is the primary function of the anterior cruciate ligament (ACL) in the knee?

- A) Preventing posterior tibial translation
- B) Preventing anterior tibial translation
- C) Stabilizing the patella
- D) Absorbing synovial fluid

5. Which phase of tissue healing is characterized by the formation of scar tissue and angiogenesis?

- A) Inflammatory phase
- B) Remodeling phase
- C) Proliferation phase
- D) Maturation phase

6. What does the acronym RICE stand for in the context of acute injury management?

- A) Rest, Ice, Compression, Elevation
- B) Recovery, Immobilization, Cold, Extension
- C) Rest, Immobilization, Compression, Exercise
- D) Rehabilitation, Ice, Control, Elevation

7. Which bone is commonly referred to as the 'collarbone'?

- A) Scapula
- B) Sternum
- C) Clavicle
- D) Humerus

8. What is the main physiological purpose of warming up before intense physical activity?

- A) To increase muscle fiber length
- B) To increase core body temperature and blood flow
- C) To deplete lactic acid stores
- D) To strengthen connective tissues

9. Which imaging technique is most effective for visualizing soft tissue injuries like a torn meniscus?

- A) X-ray
- B) Computed Tomography (CT)
- C) Magnetic Resonance Imaging (MRI)
- D) Ultrasound

10. What is the primary role of an osteoblast in bone tissue?

- A) Bone resorption
- B) Bone formation
- C) Cartilage repair
- D) Nerve signaling

11. Which muscle group is responsible for extending the knee joint?

- A) Hamstrings
- B) Quadriceps
- C) Gastrocnemius
- D) Adductors

12. What is the term for a complete displacement of a bone from its normal position in a joint?

- A) Sprain
- B) Strain
- C) Subluxation
- D) Luxation

13. Which physiological process occurs when there is an inadequate supply of oxygen to the muscles during exercise?

- A) Aerobic metabolism
- B) Anaerobic metabolism
- C) Glycogenolysis
- D) Protein synthesis

14. Where is the Achilles tendon located?

- A) Posterior lower leg
- B) Anterior forearm
- C) Lateral thigh
- D) Medial foot

15. Which mineral is essential for the contraction of skeletal muscles?

- A) Iron
- B) Calcium
- C) Zinc
- D) Magnesium

16. What is the function of a bursa?

- A) To connect bone to bone
- B) To reduce friction between moving parts
- C) To store calcium
- D) To conduct nerve impulses

17. Which of the following is considered a 'closed' kinetic chain exercise?

- A) Bicep curl
- B) Leg extension
- C) Squat
- D) Leg curl

18. What is the term for a stretch or tear of a ligament?

- A) Strain
- B) Sprain
- C) Contusion
- D) Fracture

19. Which of these describes a 'greenstick' fracture?

- A) A bone break that pierces the skin
- B) An incomplete fracture in children
- C) A fracture caused by repeated stress
- D) A fracture where the bone is shattered

20. What is the primary function of erythrocytes?

- A) Clotting blood
- B) Transporting oxygen
- C) Fighting infection
- D) Producing hormones

21. Which type of muscle contraction occurs when the muscle develops tension without changing length?

- A) Concentric
- B) Eccentric
- C) Isometric
- D) Isokinetic

22. What is the term for the specialized nerve endings that sense changes in muscle length?

- A) Golgi tendon organs
- B) Muscle spindles
- C) Nociceptors
- D) Baroreceptors

23. Which movement describes turning the sole of the foot inward toward the midline?

- A) Eversion
- B) Inversion
- C) Dorsiflexion
- D) Plantarflexion

24. What is the primary energy substrate used during high-intensity, short-duration anaerobic exercise?

- A) Fatty acids
- B) Glucose
- C) Phosphocreatine
- D) Protein

25. Which part of the brain is primarily responsible for coordinating movement and maintaining balance?

- A) Cerebrum
- B) Brainstem
- C) Cerebellum
- D) Hypothalamus