

Anatomy Of The Hand Quiz Answer Key PDF

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Which artery is primarily responsible for supplying blood to the thumb?

- A. Ulnar artery
- B. Radial artery ✓**
- C. Brachial artery
- D. Axillary artery

Which bone is located in the proximal row of the carpal bones?

- A. Trapezium
- B. Scaphoid ✓**
- C. Capitate
- D. Hamate

Explain how the structure of the hand allows for both strength and dexterity in its movements.

The hand's design includes a strong skeletal framework with the metacarpals and phalanges providing stability, while the presence of multiple joints and tendons allows for a wide range of motion and fine motor skills, facilitating both strength in gripping and dexterity in manipulation.

Which of the following are common symptoms of carpal tunnel syndrome? (Select all that apply)

- A. Numbness in the thumb ✓**
- B. Pain in the wrist ✓**
- C. Weakness in the little finger
- D. Tingling in the index finger ✓**

Explain the role of the radial and ulnar arteries in the vascular supply of the hand.

The radial artery runs along the thumb side of the forearm and supplies blood to the lateral side of the hand, while the ulnar artery runs along the little finger side and supplies blood to the medial side of the hand. Together, they form the superficial and deep palmar arches, ensuring adequate blood flow to the hand and fingers.

Which muscle is part of the thenar group?

- A. Abductor digiti minimi
- B. Flexor pollicis brevis ✓**
- C. Opponens digiti minimi
- D. Palmaris longus

What are the potential consequences of an untreated scaphoid fracture?

The potential consequences of an untreated scaphoid fracture include nonunion of the bone, avascular necrosis, chronic pain, and impaired wrist function.

Describe the anatomical structure and function of the metacarpophalangeal joints.

The metacarpophalangeal joints are synovially structured joints that connect the metacarpal bones to the proximal phalanges, allowing for a range of movements including flexions, extensions, and some degree of abduction and adduction.

What are the functions of the ulnar nerve in the hand? (Select all that apply)

- A. Innervates the thenar muscles
- B. Provides sensation to the little finger ✓**
- C. Controls the hypothenar muscles ✓**
- D. Supplies the lateral two lumbricals

Which of the following are intrinsic muscles of the hand? (Select all that apply)

- A. Lumbricals ✓**
- B. Flexor digitorum profundus
- C. Interossei ✓**
- D. Abductor pollicis brevis ✓**

Discuss the differences between the intrinsic and extrinsic muscles of the hand.

Intrinsic muscles include the lumbricals and interossei, which facilitate precise finger movements, whereas extrinsic muscles, such as the flexor and extensor muscles, are responsible for larger movements and grip strength.

Which carpal bone is most commonly fractured?

- A. Lunate
- B. Pisiform
- C. Scaphoid ✓**
- D. Trapezoid

Which structures pass through the carpal tunnel? (Select all that apply)

- A. Median nerve ✓**
- B. Ulnar artery
- C. Flexor digitorum superficialis tendons ✓**
- D. Flexor pollicis longus tendon ✓**

Outline the pathway and function of the median nerve in the hand.

The median nerve arises from the medial and lateral cords of the brachial plexus, travels down the arm, enters the hand through the carpal tunnel, and innervates the thenar muscles and the lateral two lumbricals, providing sensation to the palmar side of the thumb, index, middle, and half of the ring finger.

Which nerve is most commonly associated with carpal tunnel syndrome?

- A. Ulnar nerve
- B. Radial nerve
- C. Median nerve ✓**
- D. Axillary nerve

What type of joint is the metacarpophalangeal joint?

- A. Hinge joint
- B. Ball and socket joint

C. Saddle joint

D. Condylloid joint ✓

Which bones form the distal row of the carpal bones? (Select all that apply)

A. Trapezium ✓

B. Lunate

C. Capitate ✓

D. Hamate ✓

What is the primary function of the flexor retinaculum?

A. Stabilize the wrist joint

B. Form the carpal tunnel ✓

C. Protect the ulnar nerve

D. Connect the phalanges

How many phalanges are present in one human hand?

A. 10

B. 12

C. 14 ✓

D. 16

Which of the following are types of grips performed by the hand? (Select all that apply)

A. Power grip ✓

B. Precision grip ✓

C. Hook grip ✓

D. Ball grip