

MULTIPLE CHOICE

MSK ELBOW WRIST AND HAND - PRACTICE SET

PROPOSED FOR REVIEW - questions are the author's verbatim Q&A; distractors are auto-selected from other answers in the same bank and must be checked by a subject-matter reviewer (a distractor could coincidentally be correct). Not authoritative assessment content.

1. The distal triceps tendon inserts on which bony landmark?

- A. Radial tuberosity
- B. Medial epicondyle of the humerus
- C. Olecranon process of the ulna
- D. Coronoid process

2. Guyon's canal compression typically affects which nerve?

- A. Median nerve
- B. Posterior interosseous nerve
- C. Radial nerve
- D. Ulnar nerve

3. Increased color or power Doppler flow within a thickened, hypoechoic common extensor tendon at the lateral epicondyle most likely represents:

- A. Normal intratendinous vascularity
- B. Neovascularity associated with tendinosis
- C. Arteriovenous fistula
- D. Septic tenosynovitis

4. Which sonographic finding most strongly supports a diagnosis of carpal tunnel syndrome?

- A. Diffuse hyperechoic enlargement of the median nerve
- B. Enlarged hypoechoic median nerve with increased cross-sectional area at the proximal carpal tunnel
- C. Anechoic fluid surrounding the flexor tendons only, with a normal-sized nerve
- D. Hyperechoic foci within the transverse carpal ligament

5. Which sonographic approach is most useful for visualizing the distal biceps tendon insertion on the radial tuberosity?

- A. Anterior approach with the elbow extended and forearm supinated
- B. Medial approach with the forearm pronated
- C. Lateral approach with the wrist in neutral
- D. Posterior approach with the elbow flexed 90 degrees

6. On longitudinal ultrasound of a normal flexor tendon in the finger, the appearance should be:

- A. An anechoic tubular structure with through-transmission
- B. A linear fibrillar hyperechoic band gliding smoothly beneath the pulleys during passive motion
- C. A discontinuous hyperechoic band with adjacent fluid
- D. A heterogeneous hypoechoic mass with internal vascularity

7. Sonographic findings of extensor carpi ulnaris (ECU) subluxation are best demonstrated by:

- A. Dynamic imaging during supination with the wrist in ulnar deviation
- B. Compression of the dorsal capsule of the radiocarpal joint
- C. Imaging only in long axis with the wrist neutral
- D. Static imaging with the wrist in full pronation

8. Which structure is part of the triangular fibrocartilage complex and serves as a primary stabilizer of the distal radioulnar joint?

- A. Annular ligament
- B. Lateral ulnar collateral ligament
- C. Flexor retinaculum

D. Dorsal and volar radioulnar ligaments

9. The most common location of a dorsal wrist ganglion is:

- A. Over the scapholunate ligament
- B. Over the first extensor compartment
- C. Over the pisotriquetral joint
- D. Over the distal radioulnar joint

10. Which structure is the primary stabilizer against valgus stress at the elbow and is therefore the focus of sonographic evaluation in overhead-throwing athletes?

- A. Lateral ulnar collateral ligament
- B. Radial (lateral) collateral ligament
- C. Annular ligament
- D. Anterior bundle of the ulnar (medial) collateral ligament

11. For a complete distal biceps tendon tear, the most reliable sonographic finding is:

- A. Diffuse hypoechoic thickening of the tendon
- B. Nonvisualization of the tendon at the radial tuberosity with retracted tendon stump
- C. Hyperechoic foci within the tendon without retraction
- D. Mild fluid in the bicipitoradial bursa with intact tendon

12. Olecranon bursitis is best differentiated from a posterior elbow joint effusion by:

- A. The bursa is a superficial subcutaneous collection over the olecranon, separate from the joint
- B. Bursal fluid is always echogenic and effusions are always anechoic
- C. The bursa lies deep to the triceps tendon within the olecranon fossa
- D. Joint effusions are always smaller than bursal collections

13. Medial epicondylitis (golfer's elbow) primarily involves the common origin of which muscle group?

- A. Common extensor tendon
- B. Common flexor tendon (flexor-pronator group)
- C. Biceps brachii tendon
- D. Triceps tendon

14. On ultrasound, which finding favors a partial-thickness rather than a full-thickness tear of the common extensor tendon at the lateral epicondyle?

- A. Diffuse fatty replacement of the tendon
- B. Complete absence of the tendon at the lateral epicondyle
- C. A focal hypoechoic or anechoic cleft within the tendon without complete fiber discontinuity
- D. Cortical irregularity of the radial head without tendon abnormality

15. Which finding helps differentiate a peripheral nerve from a tendon in short-axis ultrasound?

- A. Tendons show a honeycomb pattern; nerves show a fibrillar pattern
- B. The nerve shows a honeycomb fascicular pattern; the tendon shows a tightly packed fibrillar pattern
- C. Both have identical short-axis appearances and require Doppler to differentiate
- D. Nerves are anechoic; tendons are anechoic with through-transmission

16. The transverse carpal ligament forms which boundary of the carpal tunnel?

- A. The volar (palmar) roof
- B. The dorsal floor
- C. The ulnar wall
- D. The radial wall

17. On ultrasound, a 'mallet finger' is best characterized by:

- A. Subluxation of the central slip over the PIP joint
- B. Tear of the A1 pulley at the MCP joint
- C. Avulsion of the flexor digitorum profundus from the distal phalanx
- D. Disruption of the extensor tendon at its insertion on the distal phalanx, often with a small dorsal bony avulsion

18. During ultrasound of the elbow joint, a small posterior fluid collection in the olecranon fossa with the elbow flexed about 90 degrees most likely represents:

- A. A joint effusion
- B. A complete triceps tendon tear
- C. An olecranon bursitis only

D. A normal anatomic structure that requires no follow-up

19. Lateral epicondylitis (tennis elbow) most commonly involves which tendon at its origin on the lateral epicondyle of the humerus?

- A. Pronator teres
- B. Extensor carpi radialis brevis
- C. Extensor carpi ulnaris
- D. Flexor carpi radialis

20. Which sonographic finding best supports trigger finger at the A1 pulley?

- A. Hyperechoic foci shadowing within the median nerve
- B. Anechoic distention of the radiocarpal joint
- C. Thickened hypoechoic A1 pulley with dynamic catching of the flexor tendon during finger flexion
- D. Subcutaneous edema dorsal to the metacarpal head

21. On sonographic stress testing of the ulnar collateral ligament, a finding of increased medial ulnohumeral joint gapping during valgus stress compared with the contralateral side most likely indicates:

- A. Normal physiologic laxity
- B. Ulnar collateral ligament injury or insufficiency
- C. Common flexor tendinosis
- D. Olecranon bursitis

22. When evaluating for dynamic ulnar nerve subluxation at the cubital tunnel, the patient should be examined with:

- A. The wrist passively flexed and extended
- B. The elbow imaged in short axis while moving from extension into full flexion
- C. The elbow imaged only in long axis during pronation
- D. The elbow held in static full extension throughout

23. For sonographic evaluation of the wrist and finger tendons, which transducer is generally most appropriate?

- A. Low-frequency curvilinear transducer (3 to 5 MHz)
- B. Phased-array sector transducer
- C. Intracavitary endoluminal transducer
- D. High-frequency linear-array transducer (commonly 12 to 18 MHz or higher)

24. A bifid median nerve in the carpal tunnel is often associated with which vascular variant?

- A. Persistent median artery
- B. Aberrant ulnar artery
- C. Superficial palmar arch absence
- D. Radial artery duplication

25. Which sonographic finding is most characteristic of chronic common extensor tendinosis at the lateral epicondyle?

- A. Focal hypoechoic thickening with loss of fibrillar pattern
- B. Diffuse anechoic thinning of the tendon
- C. Anechoic fluid-filled tendon sheath
- D. Hyperechoic foci with comet-tail artifact throughout the tendon