

Viva Voce – Joints of Upper Limb

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1. What type of joint is the sternoclavicular joint?

? Saddle-type synovial joint (functionally ball-and-socket).

2. Why is the sternoclavicular joint rarely dislocated?

Because it has **strong ligaments** (costoclavicular, interclavicular) and a **fibrocartilaginous disc** that divides the cavity and stabilizes movement.

3. What is the function of the costoclavicular ligament?

It is the **chief stabilizing ligament** of the sternoclavicular joint; limits elevation of clavicle.

4. What is the type of acromioclavicular joint?

Plane synovial joint with limited gliding movement.

5. Name the two parts of coracoclavicular ligament.

Conoid (medial) and **Trapezoid** (lateral).

6. What forms the coracoacromial arch?

Coracoid process + acromion + coracoacromial ligament.

? *Function:* Prevents superior dislocation of humeral head.

7. What type of joint is the shoulder (glenohumeral) joint?

Ball-and-socket synovial joint.

8. What are the bones forming the shoulder joint?

Head of humerus and glenoid cavity of scapula.

9. What deepens the glenoid cavity?

Fibrocartilaginous **glenoid labrum**.

10. Which muscles form the rotator cuff?

SITS: Supraspinatus, Infraspinatus, Teres minor, Subscapularis.

11. Which muscle initiates abduction of shoulder?

Supraspinatus – first 15°.

12. What muscle is the chief abductor of shoulder?

Deltoid (middle fibres).

13. What movement occurs at the shoulder joint during throwing?

Combination of **flexion, extension, abduction, rotation, and circumduction.**

14. Which nerve is injured in shoulder dislocation?

Axillary nerve. ? paralysis of deltoid, sensory loss over regimental badge area.

15. What are the factors maintaining stability of the shoulder joint?

- Rotator cuff muscles.
 - Coracoacromial arch.
 - Glenoid labrum.
 - Long head of biceps tendon.
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16. What is the type of elbow joint?

Complex hinge-type synovial joint.

17. What are the articulations forming the elbow joint?

- Humeroulnar (trochlea–trochlear notch)
 - Humeroradial (capitulum–head of radius)
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18. Name the main ligaments of elbow joint.

Ulnar collateral, radial collateral, annular ligament of radius.

19. What is the carrying angle?

Angle between long axis of humerus and forearm when elbow extended ? **10–15° (M), 15–20° (F)**.

20. What is the significance of carrying angle?

Keeps forearm clear of hips during walking; aids in bringing hand to mouth.

21. Name the muscles producing flexion and extension of elbow.

- **Flexion:** Biceps, Brachialis, Brachioradialis.
 - **Extension:** Triceps, Anconeus.
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22. What is the axis of supination and pronation?

Line through **head of radius (above)** and **head of ulna (below)**.

23. What type of joint is the superior radioulnar joint?

Pivot-type synovial joint.

24. What ligament holds the head of radius in position?

Annular ligament of radius.

25. What is the direction of fibres of interosseous membrane?

Downward and medially from radius to ulna.

26. What is the function of interosseous membrane?

- Connects radius and ulna.
 - Provides muscle attachment.
 - Transmits forces from radius to ulna.
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27. What type of joint is the wrist (radiocarpal) joint?

Ellipsoid (condyloid) synovial joint.

28. Which bones take part in the wrist joint?

Distal radius + articular disc (above), Scaphoid, Lunate, Triquetral (below).

29. What are the chief ligaments of the wrist joint?

Palmar radiocarpal, dorsal radiocarpal, radial and ulnar collaterals.

30. What movements occur at wrist joint?

Flexion, extension, abduction (radial deviation), adduction (ulnar deviation), and circumduction.

31. Which carpal bone is most commonly fractured?

Scaphoid ? tenderness in anatomical snuffbox.

32. What type of joint is the 1st carpometacarpal joint (thumb)?

Saddle-type synovial joint.

33. What movements are possible at the 1st CMC joint?

Flexion, extension, abduction, adduction, opposition, reposition.

34. What is the muscle responsible for opposition of thumb?

Opponens pollicis.

35. What is the functional importance of the thumb joint?

Allows **precision grip** and **fine manipulation**.

36. What type of joint is the MCP joint?

Condylloid (ellipsoid) synovial joint.

37. What movements are possible at MCP joint?

Flexion, extension, abduction, adduction, and limited circumduction.

38. What type of joint is the interphalangeal (IP) joint?

Hinge-type synovial joint ? flexion and extension only.

39. What prevents hyperextension at MCP and IP joints?

Palmar (volar) plate.

40. Which muscles flex and extend the fingers?

- **Flexors:** FDS (PIP), FDP (DIP).
 - **Extensors:** EDC, lumbricals, interossei.
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41. What is the middle finger's role in hand movement?

Acts as **axis for abduction and adduction**; can abduct both sides but cannot adduct.

42. What is Mallet finger?

Avulsion or rupture of **extensor tendon** at DIP joint ? drooping of fingertip.

43. What is Boutonnière deformity?

Flexion of PIP + hyperextension of DIP due to rupture of **central slip of extensor tendon**.

44. What is Swan-neck deformity?

Hyperextension of PIP + flexion of DIP ? seen in **rheumatoid arthritis**.

45. What is Dupuytren's contracture?

Fibrosis of **palmar fascia** ? flexion deformity of ring and little fingers.

46. What is “trigger finger”?

Thickening of flexor tendon sheath ? finger locks during flexion and releases with a snap.

47. What is a “pulled elbow”?

Subluxation of **radial head** from annular ligament (common in children).

48. What is “tennis elbow”?

Inflammation of **common extensor origin (ECRB)** at lateral epicondyle.

49. What is “golfer’s elbow”?

Inflammation of **common flexor origin** at medial epicondyle.

50. What are the clinical deformities seen in rheumatoid arthritis of hand?

- Swan-neck deformity
 - Boutonnière deformity
 - Ulnar deviation at MCP joints
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? Summary Insight

The joints of the upper limb are designed for **maximum movement and functional precision** — each stabilized by unique ligament–muscle systems.

In viva, emphasize **joint type, bones involved, movements, and key ligaments**

along with **common clinical correlations**.