Q17 – Shoulder Joint

Definition Note

> The shoulder joint (glenohumeral joint) is a synovial, multiaxial ball and socket joint formed between the head of the humerus and the glenoid cavity of the scapula. It is the most mobile joint of the body, permitting a wide range of movements.

Type and Articular Surfaces

It is a synovial ball and socket joint. The articular surfaces are the head of humerus and the shallow glenoid cavity of scapula, which is deepened by the fibrocartilaginous glenoid labrum.

Capsule and Synovial Membrane

The capsule is thin and lax, attached medially to the margin of the glenoid cavity and laterally to the anatomical neck of humerus. The synovial membrane lines the capsule and encloses the tendon of the long head of biceps brachii.

Ligaments

The ligaments include superior, middle, and inferior glenohumeral ligaments, coracohumeral ligament, transverse humeral ligament, and coracoacromial ligament. They reinforce the capsule and prevent excessive movements.

Muscles and Stability

Stability of the shoulder joint is mainly provided by rotator cuff muscles—supraspinatus, infraspinatus, teres minor, and subscapularis. These muscles hold the humeral head within the glenoid cavity during movements.

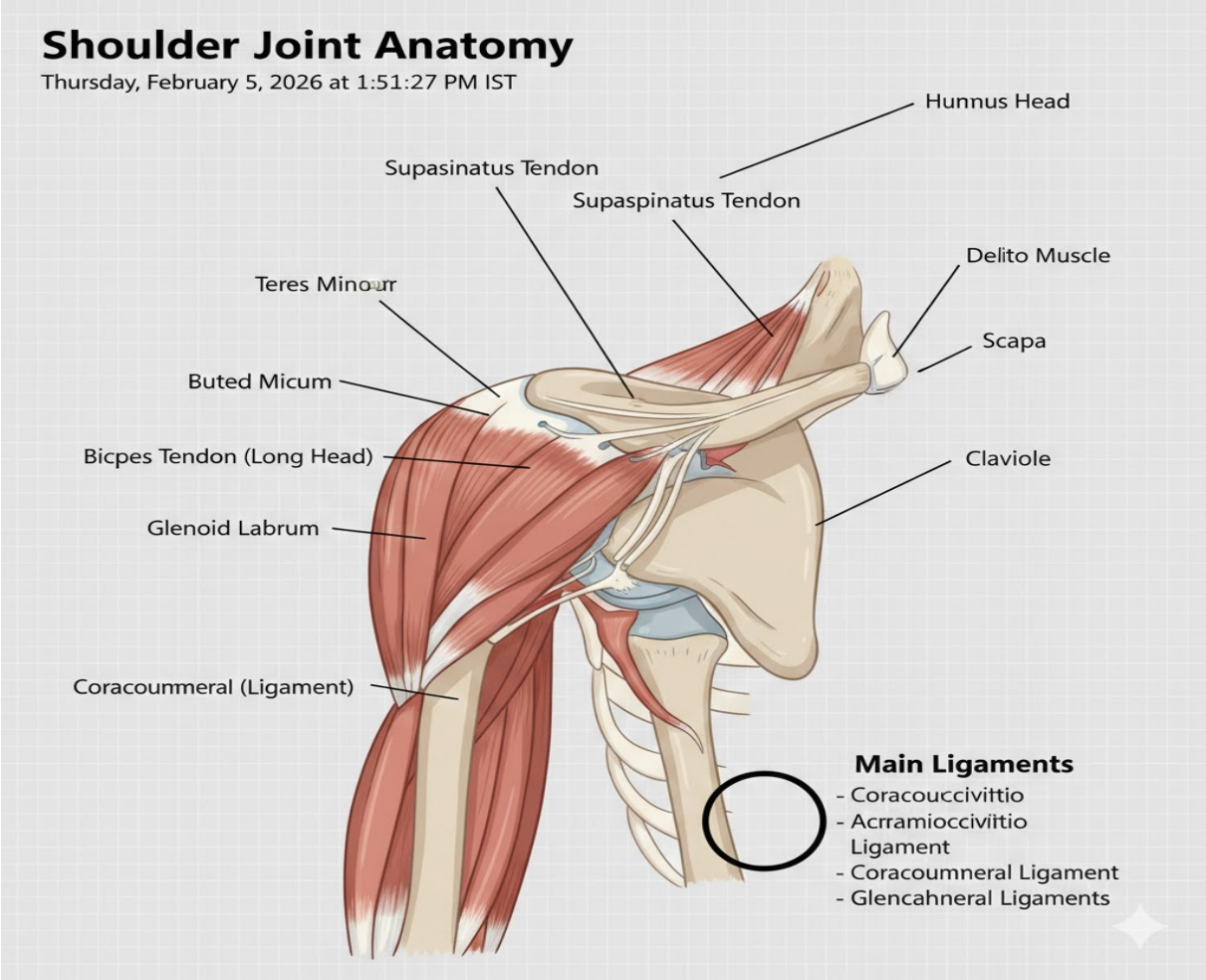
Movements

The shoulder joint permits flexion, extension, abduction, adduction, medial rotation, lateral rotation, and circumduction.

Applied Anatomy

The shoulder joint is commonly dislocated, usually anteroinferiorly. Rotator cuff injuries, frozen shoulder, and shoulder impingement syndrome are common clinical conditions affecting this joint.

Labeled Diagram – Shoulder Joint



Conclusion: The shoulder joint provides maximum mobility to the upper limb. Its stability depends largely on muscles rather than ligaments, making it prone to injuries.