

SHOULDER JOINT

- It is the joint b/w head of humerus and glenoid cavity of scapula
- most moveable joint
- least stable.

Type: The shoulder joint is a synovial joint of ball and socket variety.

Articular Surface.

- The shoulder joint is formed by articulation of
 - ✓ glenoid cavity of scapula.
 - ✓ head of humerus.
- Hence known as glenohumeral articulation.

- still, it is weak joint because glenoid is too small and shallow to hold the head of humerus in place
- However, arrangement permit more mobility.

Factors providing stability of shoulder joint

- ① Coracoacromial arch : Also known as secondary socket of glenohumeral joint.
- ② Rotator cuff or musculotendinous cuff of shoulder.
 - formed by the blending together of tendon of Subscapularis, infraspinatus, supraspinatus and teres minor around joint capsule
- ③ Glenoid labrum - helps in deepening the glenoid fossa.
- ④ - the stability is also provided by muscle attaching the humerus to pectoral girdle, long head of biceps brachii and long head of triceps brachii

Ligaments

1. Capsular ligament

- It is very loose and permit free movements
- It is least supported inferiorly where dislocations are common. Such dislocation may damage closely related axillary nerve.

○ Medially, capsule attached to scapula beyond the supra glenoid tubercle and margin of labrum.

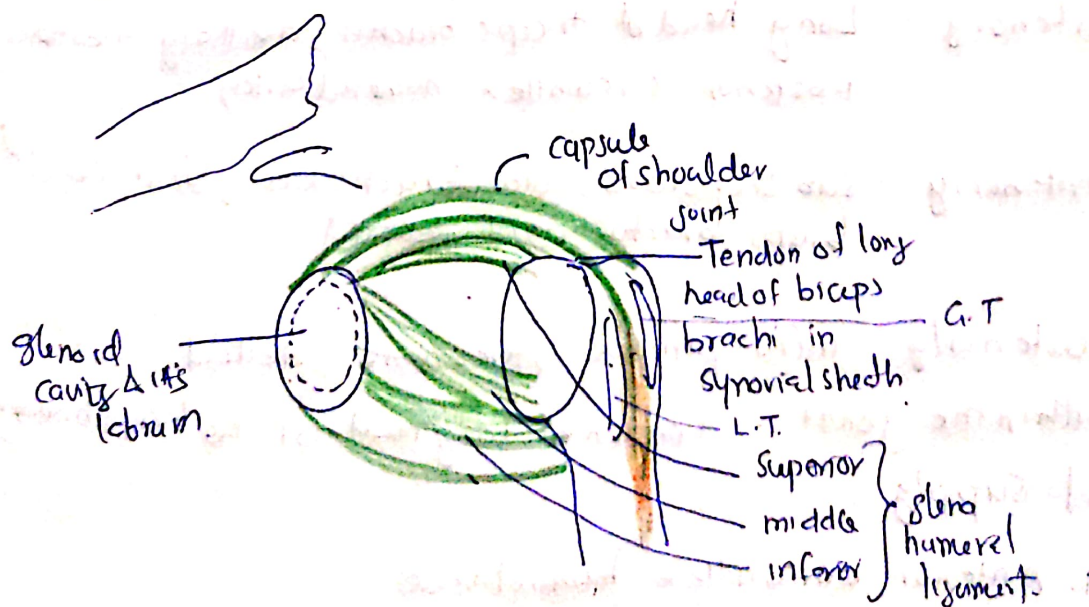
○ Laterally attached to the anatomical neck of humerus with following exception.

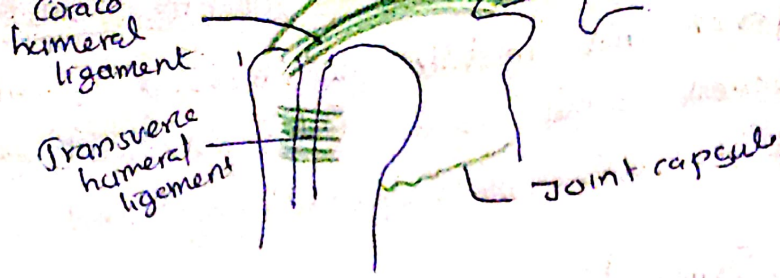
- inferiorly, the attachment extend down to surgical neck.
- superiorly it is deficient for passage of tendon of long head of biceps brachii

- o Anteriorly, the capsule is reinforced by supplemental bands called superior, middle and inferior glenohumeral ligaments
- The area b/w superior and middle glenohumeral ligament is a point of weakness in the capsule (foramen of Weitbrecht) which is common site for anterior dislocation of humeral head.

⇒ capsule is lined by synovial membrane.

- The coracohumeral ligament
 - It extends from root of coracoid process to the neck of humerus opposite the greater tubercle.
 - It gives strength to the capsule.
- Transverse humeral ligament
 - It bridges the upper part of bicipital groove of humerus.
 - The tendon of long head of biceps brachii passes deep to ligament.
- The glenoid labrum: It is a fibrocartilaginous rim which covers the margin of glenoid cavity.
 - Thus increases depth of cavity.





Bursae related to the joint

- The sub acromial (sub deltoid) bursa.
- The Sub scapularis bursa. - communicates with joint cavity.
- The infraspinatus - bursa. - may be communicate with joint cavity.

✓ The subacromial and subdeltoid bursae are commonly continuous with each other but may be separate; collectively they are called subacromial bursa.

Relation

- Superiorly: Coraco acromial arch, subacromial bursa, Supra-spinatus and deltoid.
- Inferiorly: Long head of triceps brachii, axillary nerve and posterior circumflex humeral artery.
- Anteriorly: sub scapularis, coracobrachialis, short head of biceps brachii and deltoid.
- Posteriorly: infraspinatus, teres minor, deltoid.
- Within the joint: Tendon of long head of the biceps brachii.

Blood Supply

1. Anterior circumflex humeral vessel
2. Posterior " "
3. Supra scapular vessels
4. Subscapular vessels

Nerve supply

1. Axillary nerve.
2. musculo cutaneous Nerve.
3. supra scapular nerve.