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(Joints of upper limbs.)

Three joints of upper limbs

- Shoulder joint
- Elbow joint
- Wrist joint

1. **shoulder joint:-**

They lies between the head of the hummers and the clanoid cavity of the scapula.

They are also called ball and socket joint

Capsule: this surround by the joint and attached

- *Medially:* to the margin of the glenoid cavity outside of the librium.
- *Laterally:*they attached to the anatomical neck of the hummers.

- **Ligaments:**

- **The glenohumeral ligament:**

There are three weak binds of the fibrous tissue.
That strength the frontal of the scapula.

- **The transverse humeral ligament:**

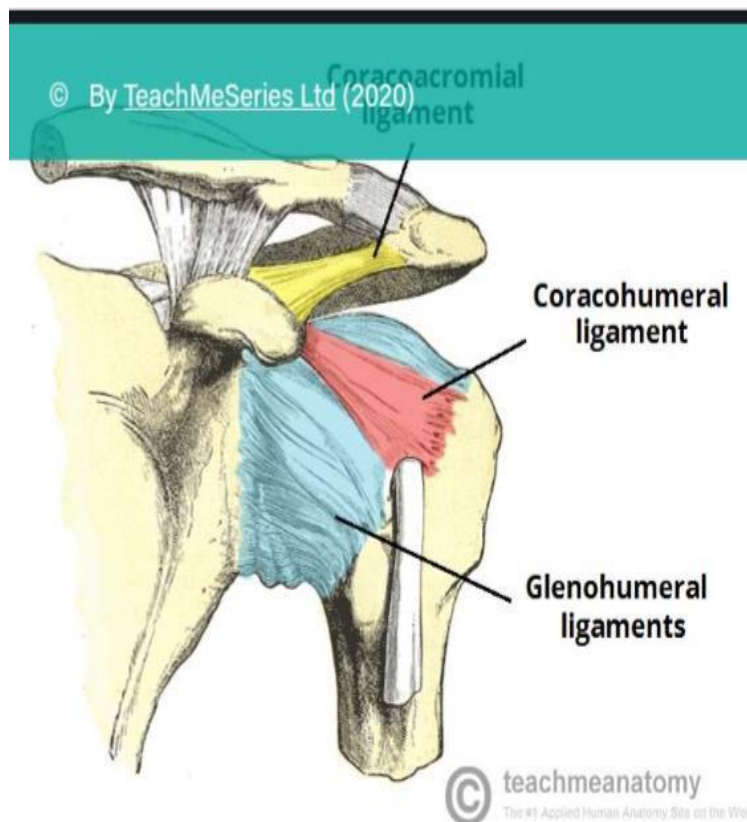
They strength of scapula and bridge the gap between the two tubersities

- **The coracohumeral ligaments:**

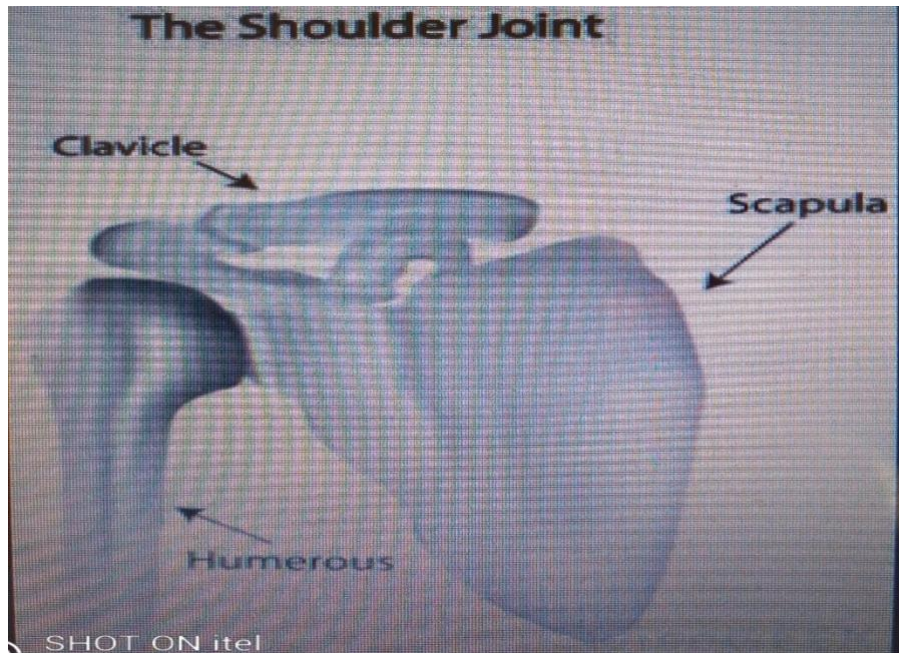
Strength the capsule above the stretches from the roots of the coracoid process to the greater tuberosity of the humours

- **Acceory ligaments:**

Function: it's function that to protect the superior aspect of the joint.



- Diagram of shoulder joint.



2. Elbow joint:

- They articulate between the capitulum of the humerus and the trochlear notch of ulna and the head of radius.
- The articulate surface are covered with hyaline cartilage.

Capsule:

1. Anteriorly:

- Above: To the humerus Along the upper margins of the coronoid and radial fossa.

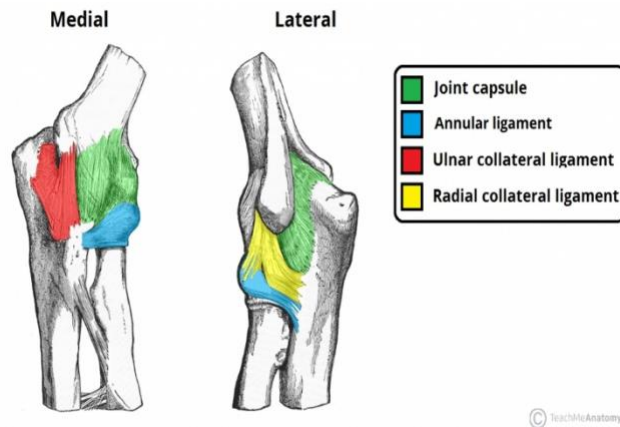
- Front: they of the medial and lateral epicondyle.
- Below: to the margins of the coronoid process of the ulna and to the angular ligaments, which surround the head of the radius.

2. Posteriorly:

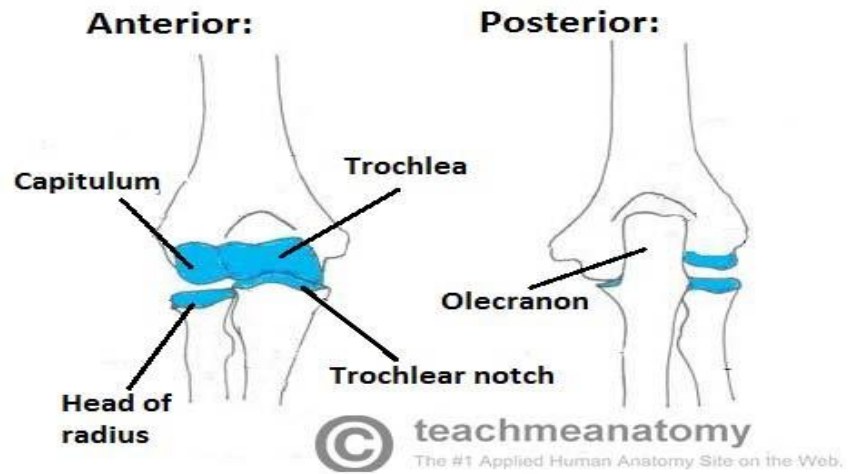
- Above: to the margins of olecranon fossa of the humerus.
- Below: the upper side of the olecranon process of the ulna and to the annular ligaments.

- **Ligaments:**

1. The radial and lateral collateral ligament it's attached.
2. By its apex to the lateral epicondyle of the humerus.
3. By its base of the upper margin of the annular ligaments.

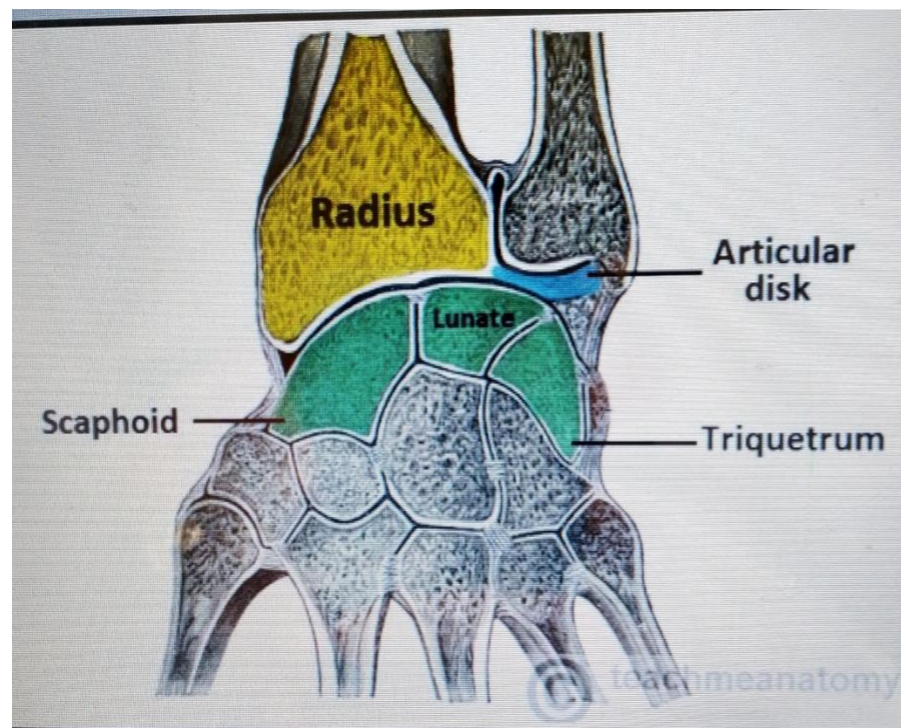


Structure of Elbow joint:



3. Wrist joint:

- They proximal end they make a joint with the radius and the articular discs.
- It's the distal end the articulate with the scaphoid and lunate bones.



- **Capsule:**
- Above: they attached with the distal end of the radius and ulna
- Below: it's attached with carpel bones.
- **Ligaments:**

1.medial ligaments:

- Origin ulnar styloid process.
- Pisiform palmary
- Provided medial stability.

2.lateral ligaments:

- Styloid process of the radius.
- Scaphoid and lunate radio scaphoid ligaments.
- Provided lateral stability.

Anterior ligaments: they are the most important ligaments for the controlling of motion wrist stability.

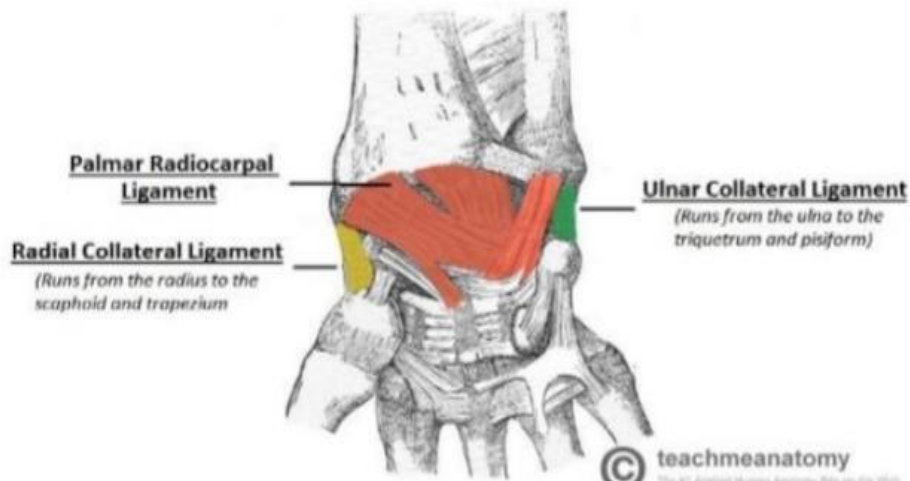
Surface: they present anterior surface of the distal radius.

Ligaments:

Palmar radiocarpal – It is found on the palmar (anterior) side of the hand. It passes from the radius to both rows of carpal bones.

Dorsal radiocarpal – It is found on the dorsum (posterior) side of the hand. It passes from the radius to both rows of carpal bones.

Radial collateral – Runs from the radial styloid process to the scaphoid and trapezium.

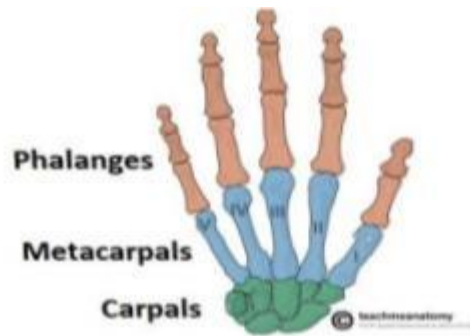


Bones of hands

Carpal bones (Proximal) – A set of eight irregularly shaped bones. These are located in the wrist area.

Metacarpals – There are five metacarpals, each one related to a digit

Phalanges (Distal) – The bones of the fingers. Each finger has three phalanges, except for the thumb, which has two.



Carpel of bones

Organized two rows

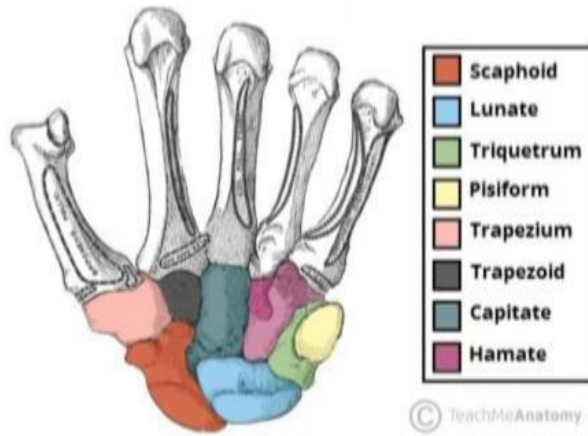
Proximal and distal row

Proximal row

- **Scaphoid**
- **Lunate**
- **Triquetrum**
- **Pisiform**

Distal row

- **Trapezium**
- **Trapezoid**
- **Capitate**
- **Hamate**



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