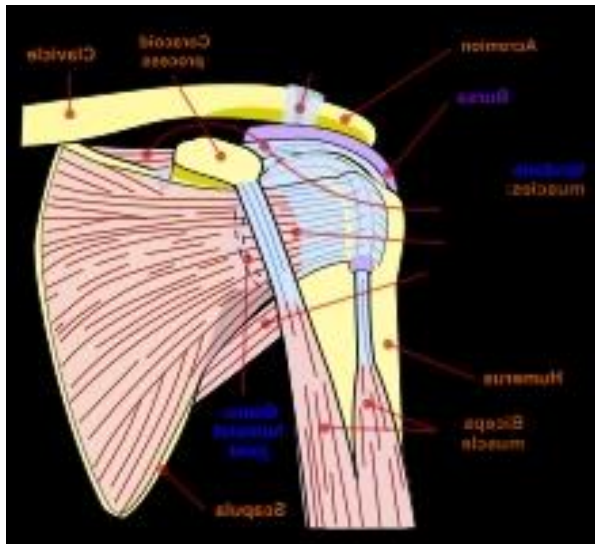


upper limb joint .

Shoulder joint

- This is formed between the rounded head of humerus and shallow, pear-shaped glenoid cavity of the scapula
- The articular surfaces are covered by hyaline articular cartilage.
- The glenoid cavity is deepened by the presence of a fibrocartilaginous rim called glenoid labrum.
- Type synovial ball and socket joint.



Capsule.

This surrounds the joint and is attached

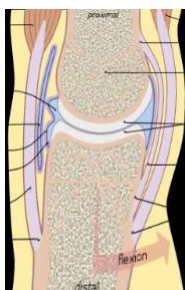
Medially .

Medially is the margin of glenoid cavity outside the labrum.

Laterally.

It is attached to the anatomical neck of the humerus.

- The capsule is thin and lax, allowing a wide range of movement



Ligaments.

- The glenohumeral are three weak bands of fibrous tissue that strengthen the capsule.

- The transverse humeral ligament.

Strengthens the capsule and bridges the gap between the two tuberosities

- The coracohumeral ligament.

Strengthens the capsule above and stretched from the root of the coracoid process to the greater tuberosity of the humerus.

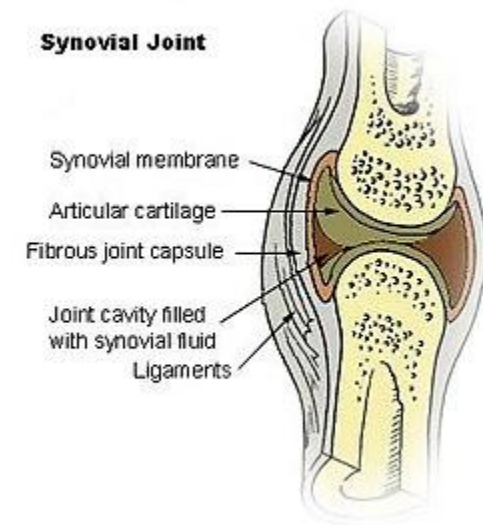
Accessory ligament.

- The coracoacromial ligament extends between the coracoid process of the acromion.
- Its function is to protect the superior aspect of the joint.

- Synovial membrane.

This lines the capsule and is attached to the margins, covering the articular surface.

It forms a tubular sheath around the tendon of the long head of the biceps brachii.

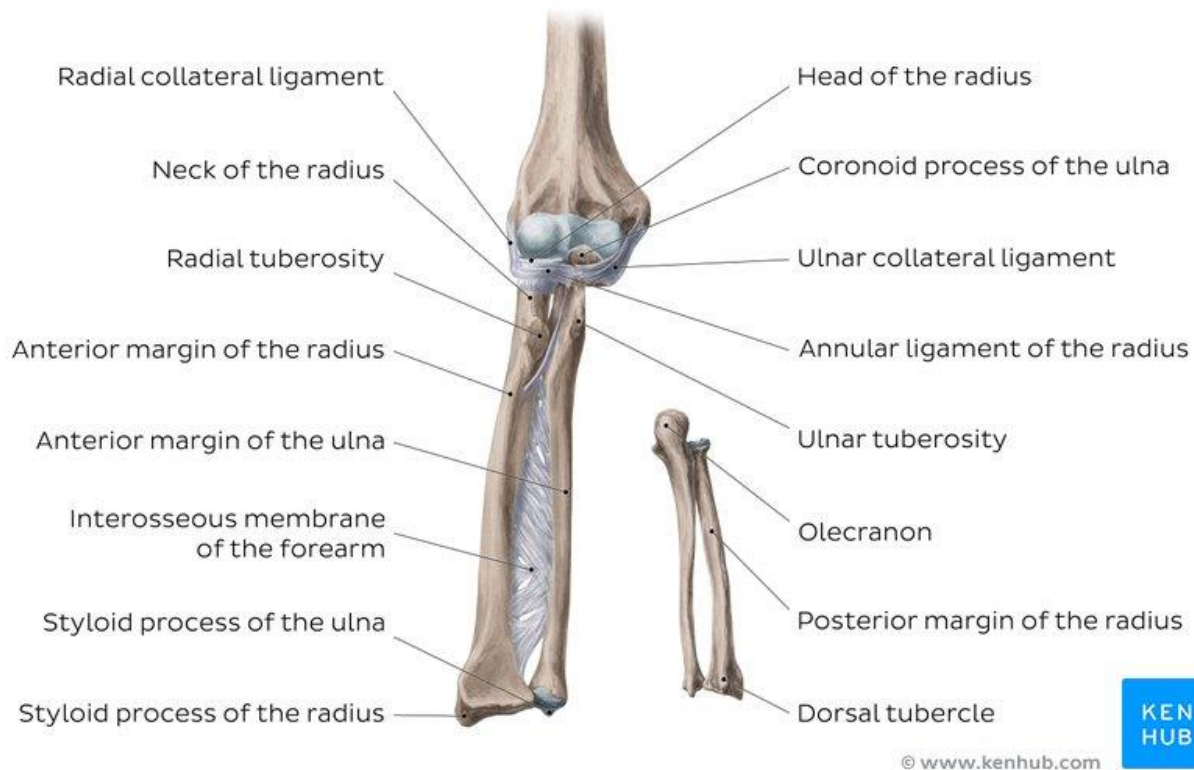


Elbow joint.

The elbow is a **hinge joint** made up of the **humerus**, **ulna** and **radius**. The unique positioning and interaction of the bones in the joint allows for a small amount of rotation as well as hinge action.

The things to remember are that there are three **bones** involved (the **humerus**, the **radius** and the **ulna**) and there are three articulations (a **humeroulnar**, a **humero-radial** and a radioulnar articulation) and you've got a joint capsule which consists of fibrous and synovial membrane.

The **elbow** is both a **ball-and-socket joint** as well as a hinge **joint**, allowing the **elbow** to bend



Dr. Mohammed Mahmoud Mosaed

(flexion) and straighten (extension) as well as enable the . The **elbow joint** is a complex hinge **joint** formed between the distal end of the humerus in the upper arm and the proximal ends of the ulna and radius in the forearm. The **elbow** allows for the flexion and extension of the forearm relative to the upper arm, as well as rotation of the forearm and

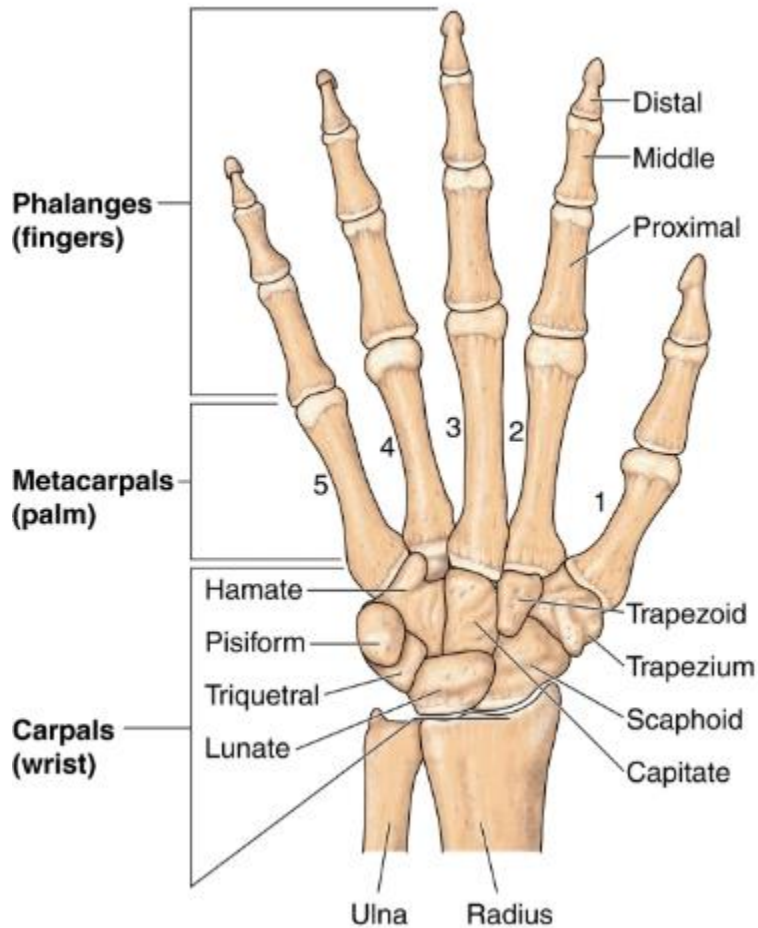
Ligaments.

There are four main ligaments in the elbow.

- **Medial collateral ligament.** Located on the inside of the elbow this ligament connects the **ulna** to the humerus.
- **Lateral collateral ligament.** Located on the outside of the elbow this ligament connects the radius to the humerus.
- **Annular ligament.** ...
- **Quadrate ligament.**

Wrist joint.

The **wrist joint** generally refers to the **radiocarpal joint**, which is the articulation between the distal end of the radius and the articulating surface of the scaphoid, lunate, and triquetra bones. Other articulations in the **wrist** area include the distal radius and ulnar and the **carpal** bones.



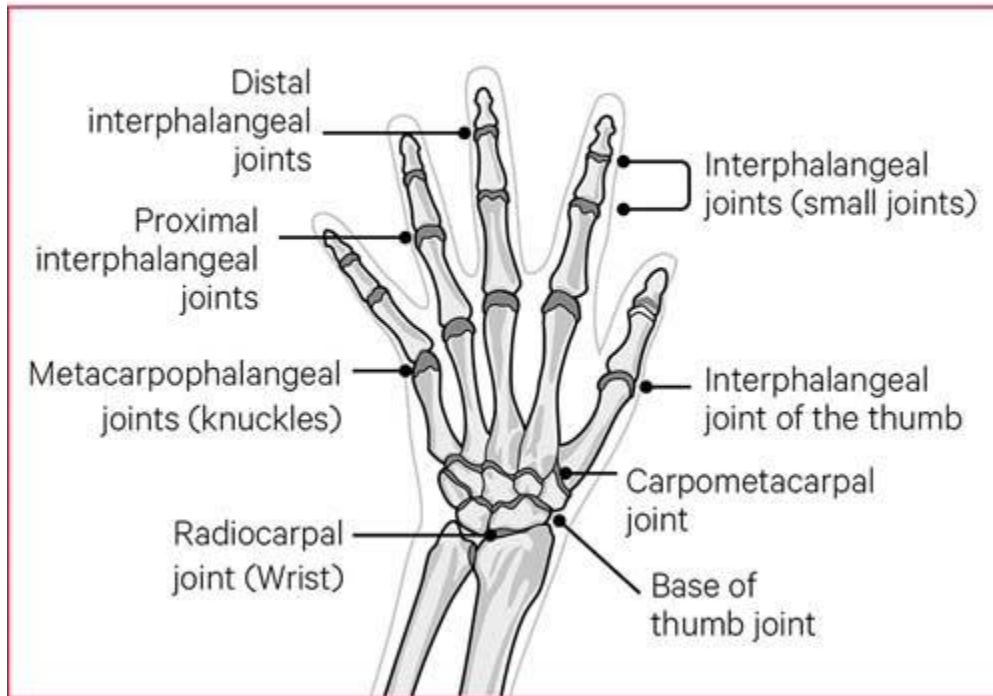
Ligament .

Radial and ulnar collateral ligaments – a pair of ligaments which bind the **bones** of the wrist and provide stability. **Volar radiocarpal ligaments** – a complex web of ligaments that support the palm side of the wrist. **Dorsal radiocarpal ligaments** – ligaments that support the back of the wrist.

[Synovial membrane.](#)

Joint Capsule. Like any **synovial joint**, the capsule is dual layered. The fibrous outer layer attaches to the radius, ulna and the proximal row of the **carpal** bones. The internal layer is comprised of a **synovial membrane**, secreting **synovial** fluid which lubricates the **joint**.

Joints of the hand and wrist



Joint of Hand and Fingers

Each of the **fingers** has three **joints**: metacarpophalangeal **joint** (MCP) – the **joint** at the base of the **finger**. proximal interphalangeal **joint** (PIP) – the **joint** in the middle of the **finger**. distal interphalangeal **joint** (DIP) – the **joint** closest to the fingertip.

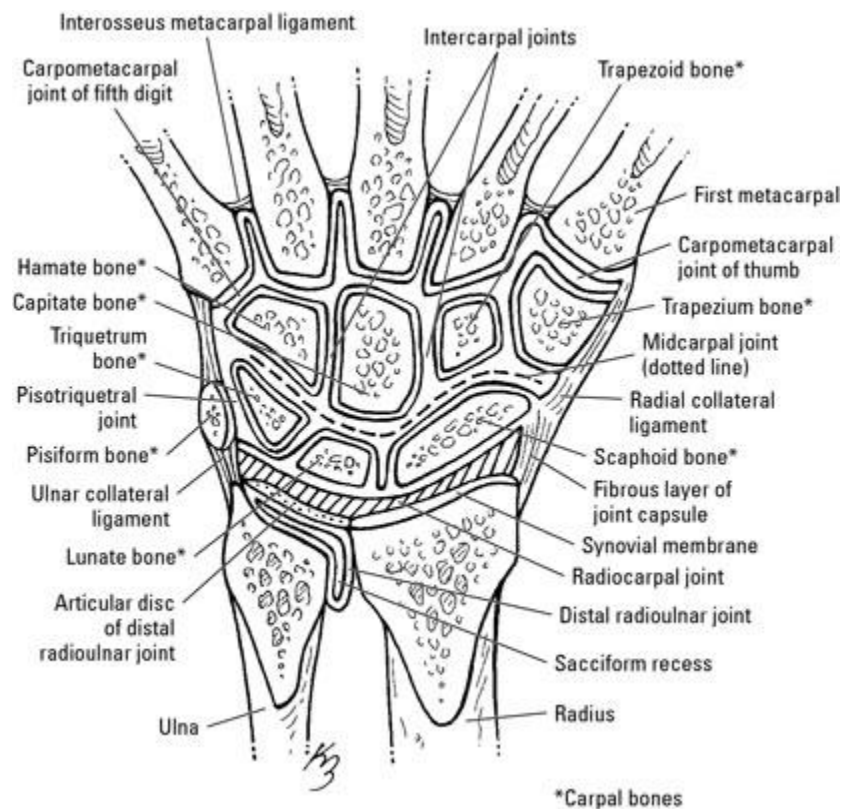
Ligament.

Ligaments and Tendons

Important **ligaments** of the **hand** are: collateral **ligaments** – strong **ligaments** on either side of the **finger** and **thumb joints**, which prevent sideways movement of the **joint**. ... radial and ulnar collateral **ligaments** – a pair of **ligaments** which bind the bones of the wrist and provide stability.

Capsule.

The **joints** of the **fingers** include the metacarpophalangeal **joints** and the interphalangeal **joints**. They're all synovial **joints** with synovial membranes and fibrous **joint capsules**. ... Each **finger** (digits two through five) has one proximal interphalangeal **joint** and one distal interphalangeal **joint**



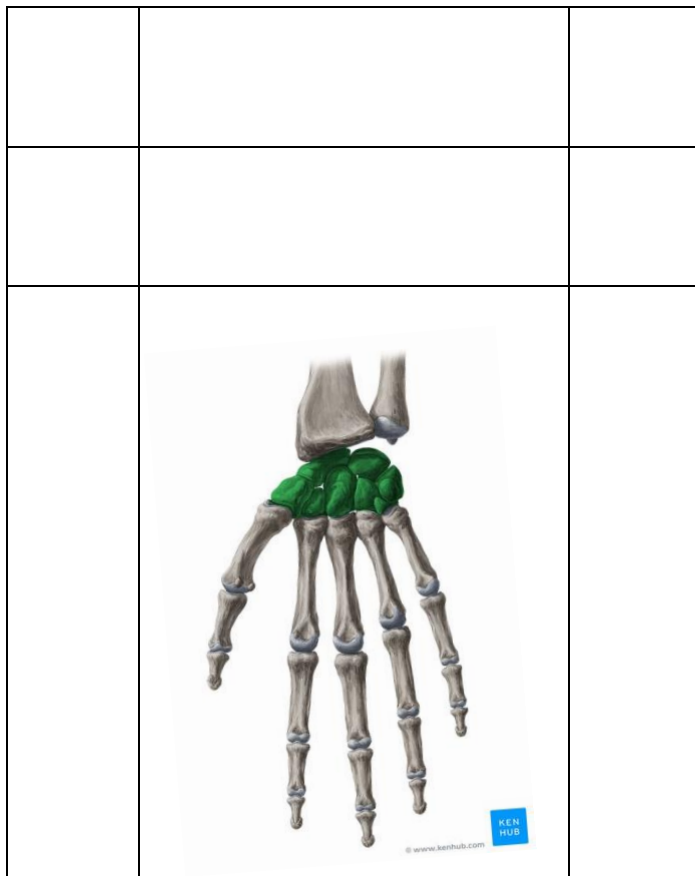
Carpal.

The **carpal** tunnel is on the palm side of your wrist, surrounded by bones and ligaments. It protects the main nerve to your **hand**, known as the median nerve, as well as the nine tendons that bend your **fingers**. The median nerve

provides sensation to the palm side of your **thumb** and **fingers**, except your little **finger**.

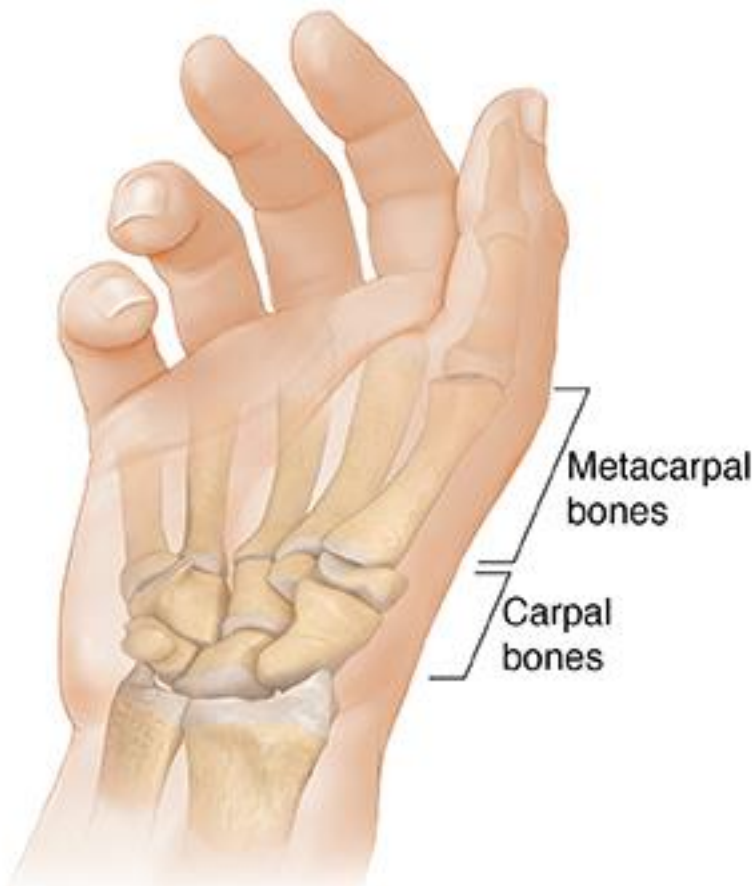
Intercarpal joint.

The **intercarpal joints** are the synovial plane **joints** that connect the carpal bones. They gather three sets of **joints**; **Joints** of the proximal carpal row, that connect the adjacent surfaces of the scaphoid, lunate and triquetrum bones.



Carpometacarpal joint.

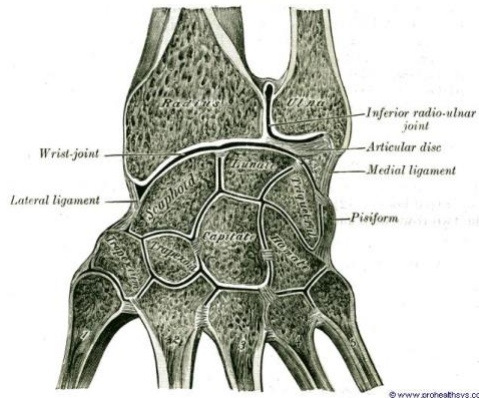
The base of the thumb where it meets the hand is called the **carpometacarpal (CMC) joint**. This **joint** allows the thumb to move freely in many directions. It also provides strength so the hand can grasp and grip. A smooth tissue called cartilage lines and cushions the bones of the **CMC joint**.



Intermetacarpal joint.

. The **intermetacarpal joints** are in the hand formed between the **metacarpal bones**. The bases of the second, third, fourth and fifth **metacarpal bones** articulate with one another by small surfaces covered with cartilage

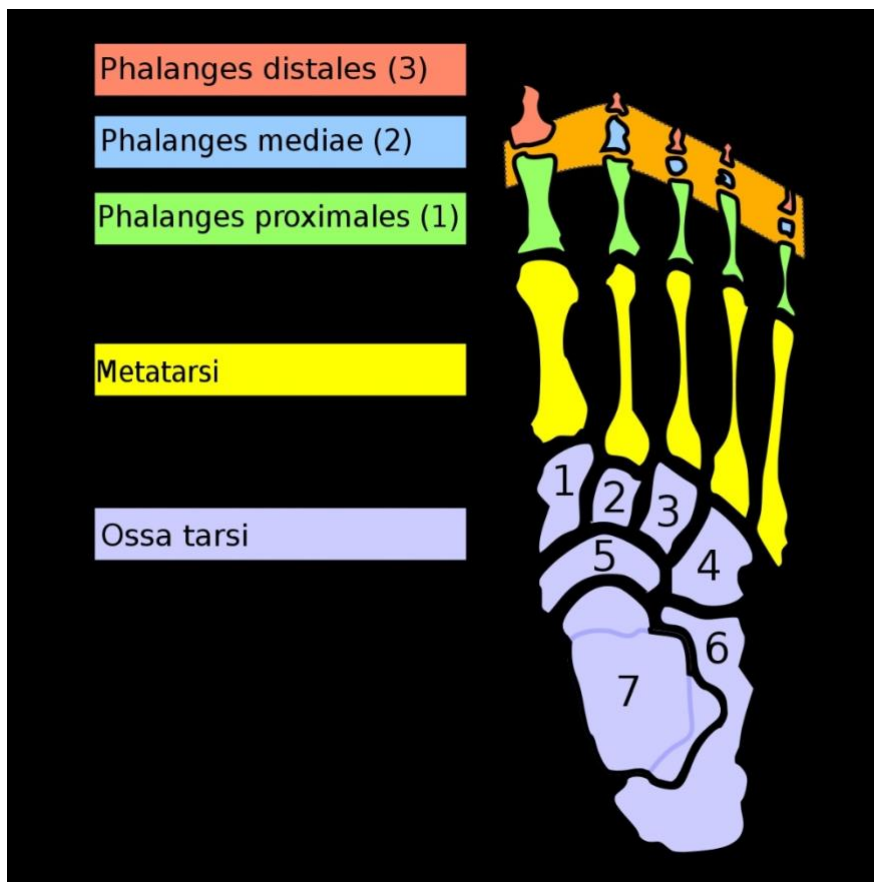
FIG. 542.—A coronal section through the joints at the right wrist, showing the synovial cavities.



Interphalangeal joint.

The **interphalangeal joints** of the hand are the hinge **joints** between the phalanges of the fingers that provide flexion towards the palm of the hand. There are two sets in each finger (except in the thumb, which has only one **joint**):

Latin: articulationes interphalangeae manus



The End.

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BS Anesthesia

Section B.