IQRA NATIONAL UNIVERSITY

ALLIED HEALTH SCIENCE

PROG:RADIOLOGY

SUBJECT:ANATOMY

ASSIGNMENT FOR LAB EXAM

JOINTS OF UPPER LIMB

SUBMITTED:AROOBA SAJJAD

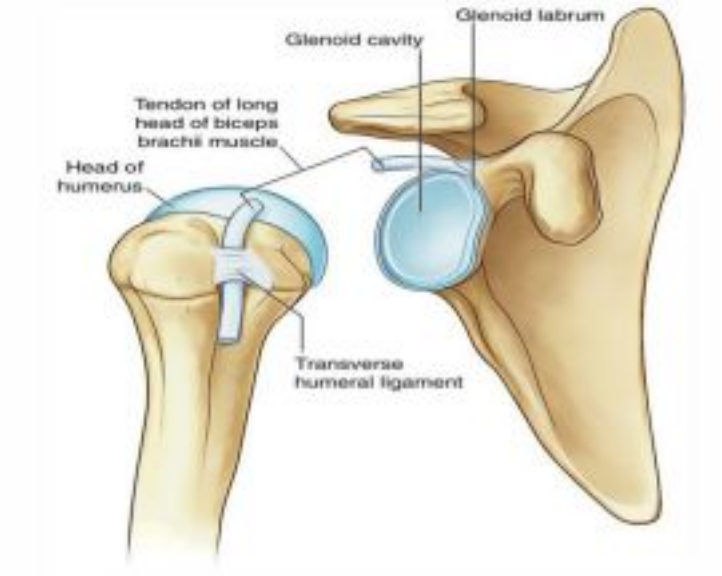
NAME:MUHAMMAD ABDULLAH

ID:17924

SECTION:A

Kinds Of Joints

A site where two or more bones come together, whether or not



movement occurs between them is called a joint.

- Exception is.

Joints are classified according to the tissue that lie between the bone :fibrous joint, cartilaginous joint, and synovial joints.

Shoulder Joint

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

Capsule: This surround the joint and is attached

- **Medially** to the margin of the glenoid cavity outside the labrum.
- **Laterally** it is attached to the anatomic neck of the humerus.
- The capsule is thick and lax allowing a wide range of movement.

Ligaments

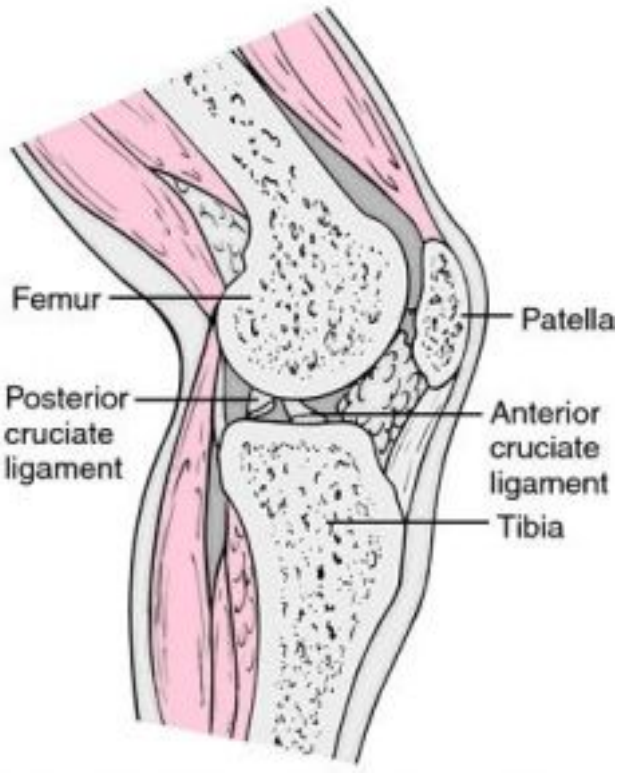
- The glenohumeral ligaments are three weak band of fibrous tissue that strengthens the front of the capsule.
- The transverse humeral ligaments strengthens the capsule and bridges the gap between the two tuberosities
- The coracohumeral ligament strengthen the capsule above and stretches from the root of the coracoid process to the greater

tuberosity of the humerus.

Accessary Ligaments:

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

Synovial Membrane:



- This line is the capsule and is attached to the margin of the cartilage covering the articular surfaces
- It form a tubular sheath around the tendon of the long head of the biceps brachii.

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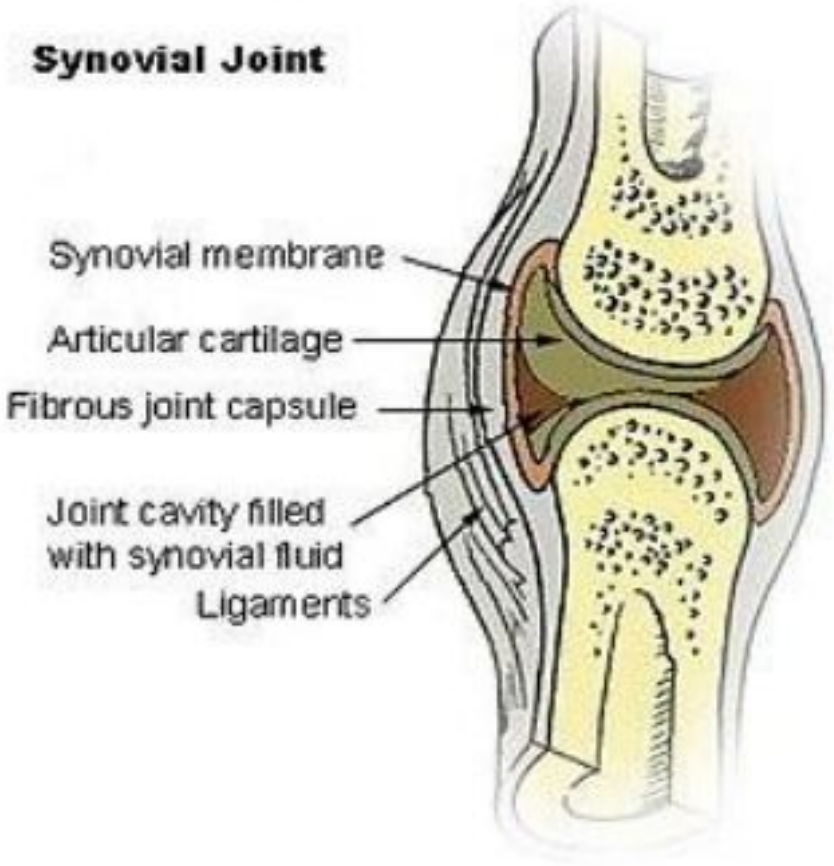
Nerve supply: The axillary and suprascapular nerves.

ELBOW JOINT

Articulation:



- This occur between

  The trachea and capitulum of the humerus.

  And

  The trochl ear notch of the ulna and the head of the radius

- The articular surface are covered with hyaline cartilage.

Type: Synovial hinge joint.

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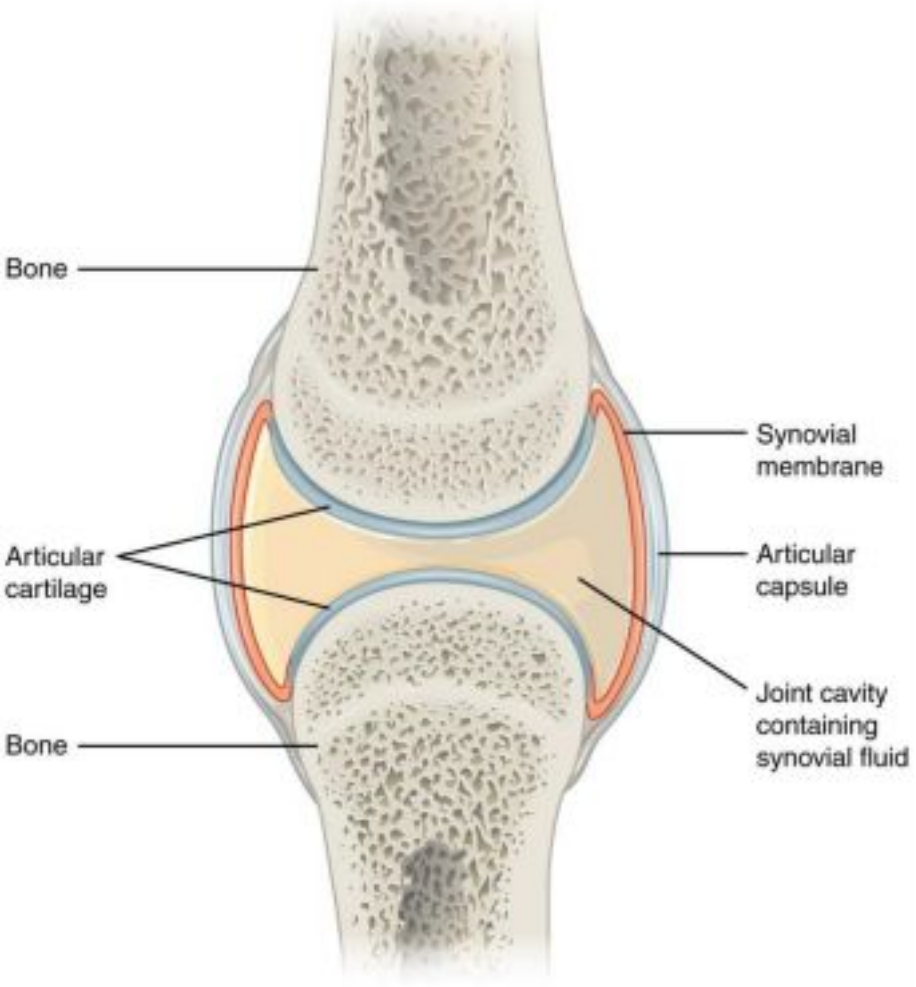
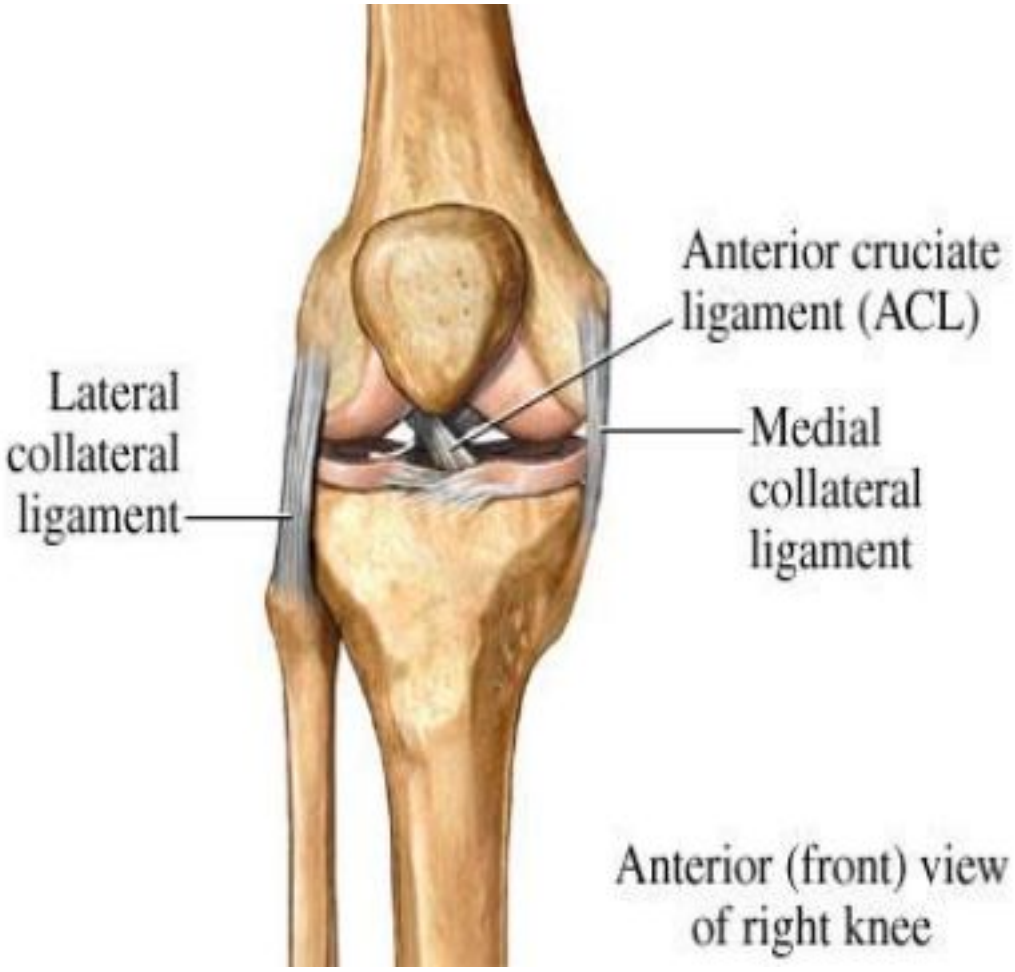
Capsule: anteriorly it is attached





Above: To the humerou alongh the upper margins of coranoid and radial fossae.

To the front: of the medial amd lateral epicondyles.

Below: To the margin of the coranoid process of the ulna and to the alunar ligament, which surround the head of the head of the humerous.

Posterioraly it is attached.

Above to the margin of the olecranin fossa of the humerous.

Below to the upper margin and the side of the olecranin process of the ulna and to the alunar ligament.

Ligaments:

- **The radial colletral ligament** is triangular and is attached

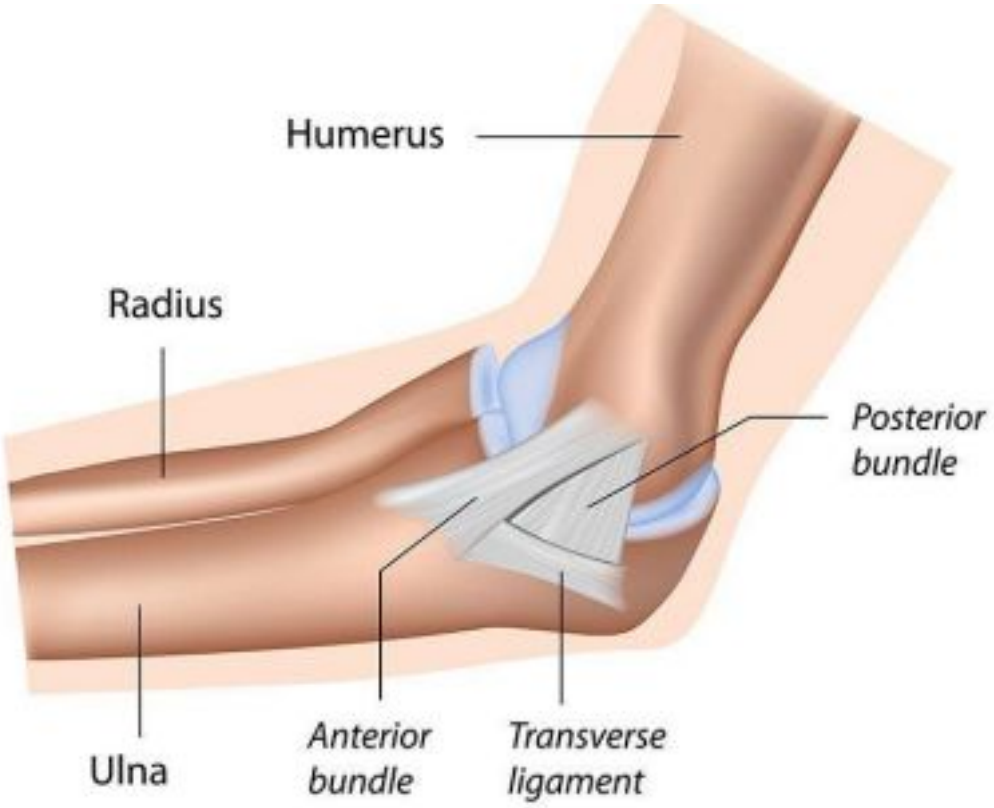
By its apex to the lateral epicondyl of the humerous

By it's base to the upper margin of the anular ligament.

The **Ulnear collateral ligament:**

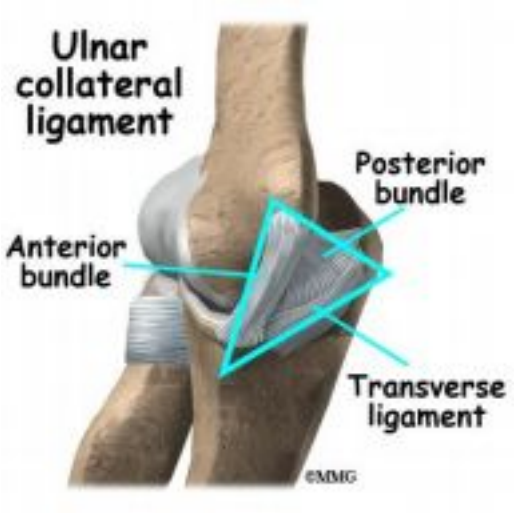
The medial ligament is also triangular and consist principally of three strong bands:

The anterior band, which passes from the medial epicondyle of the humerous to the medial margin of the coranoid process **The posterior band** which passes from the medial epicondyle of the humerous to the medial side of the olecranin process. **The Transverse band** which passes between the ulnaer attachment of the two preceding band.



Synovial Membrane:

This line the capsule and fatty pads in the floor of the coranoid,radial and olecranin fosae it is continous below with the synovial membrane of the proximal radioulnar joint.



Nerve Supply:

- Branches from
- Median nerve
- Ulnear nerve
- Musculocutanos nerve
- Radial Nerve

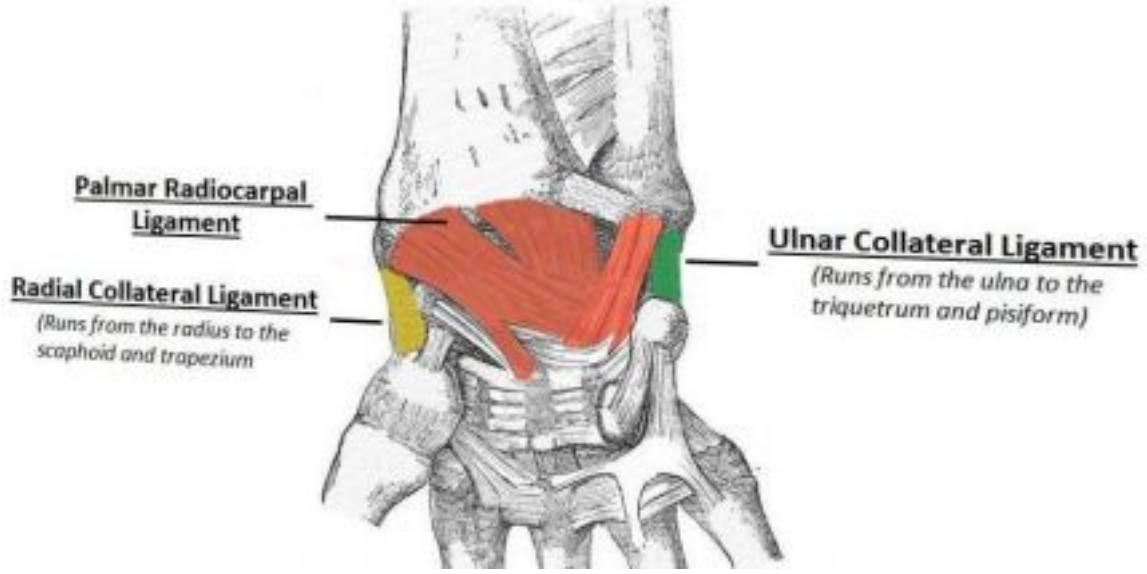
WRIST JOINT

Articulation:

Above the distal end of the radius amd the articular disc.

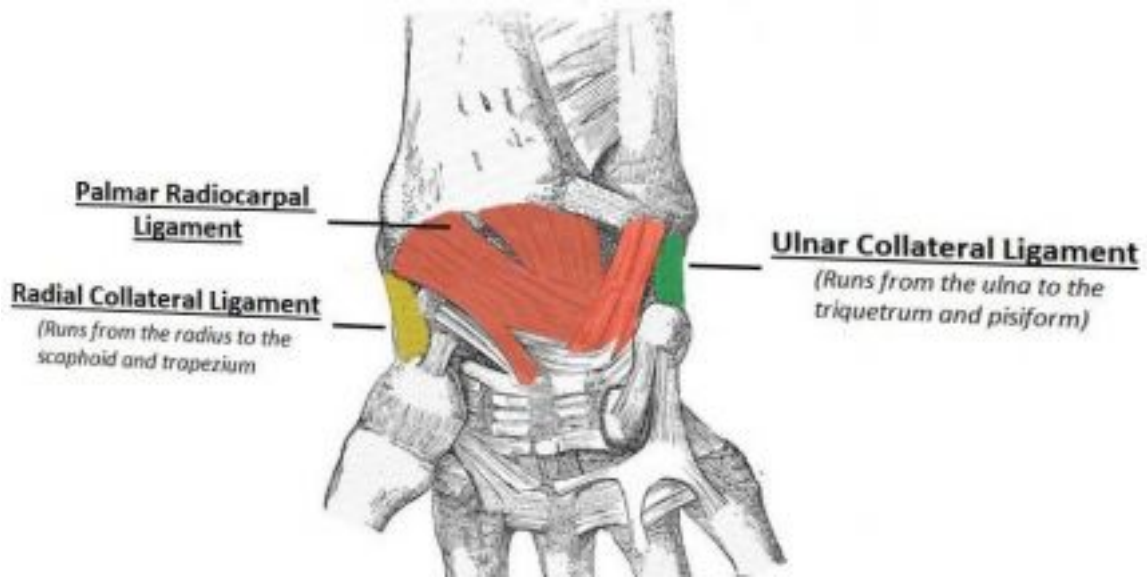
Below the scaphoid lunate, and tri quetral bones.

Capsule enclose the joint and is attached



Above the distal end of the radius and ulna.

Below the proximal row of carpel bone.



Type synovial elipsoid joint

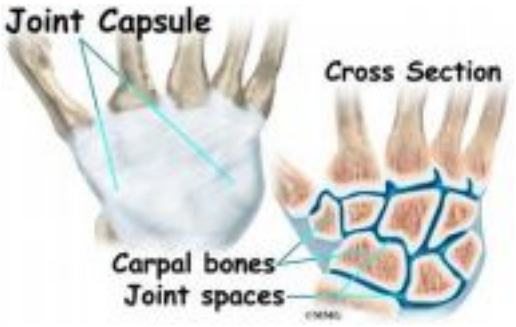
Ligaments:

The **medial ligament**

Origin: styloid process of the radius.

Insertion: scaphoid and tarpizum.

- Provide laterally stability.



Anterior ligament:

Most important ligament for controlling motion and wrist stability. **Origin** anterior surface of distal radius.

Insertion: course oblequely and midakkt to split into.

- The radiocapitate ligament
- The radiotriquetram ligament
- The radioscaphoid ligament

Posterior ligament:

Origin posterior surface of the distal radius and styloid

process. **Insertion** lunate and triquetram.

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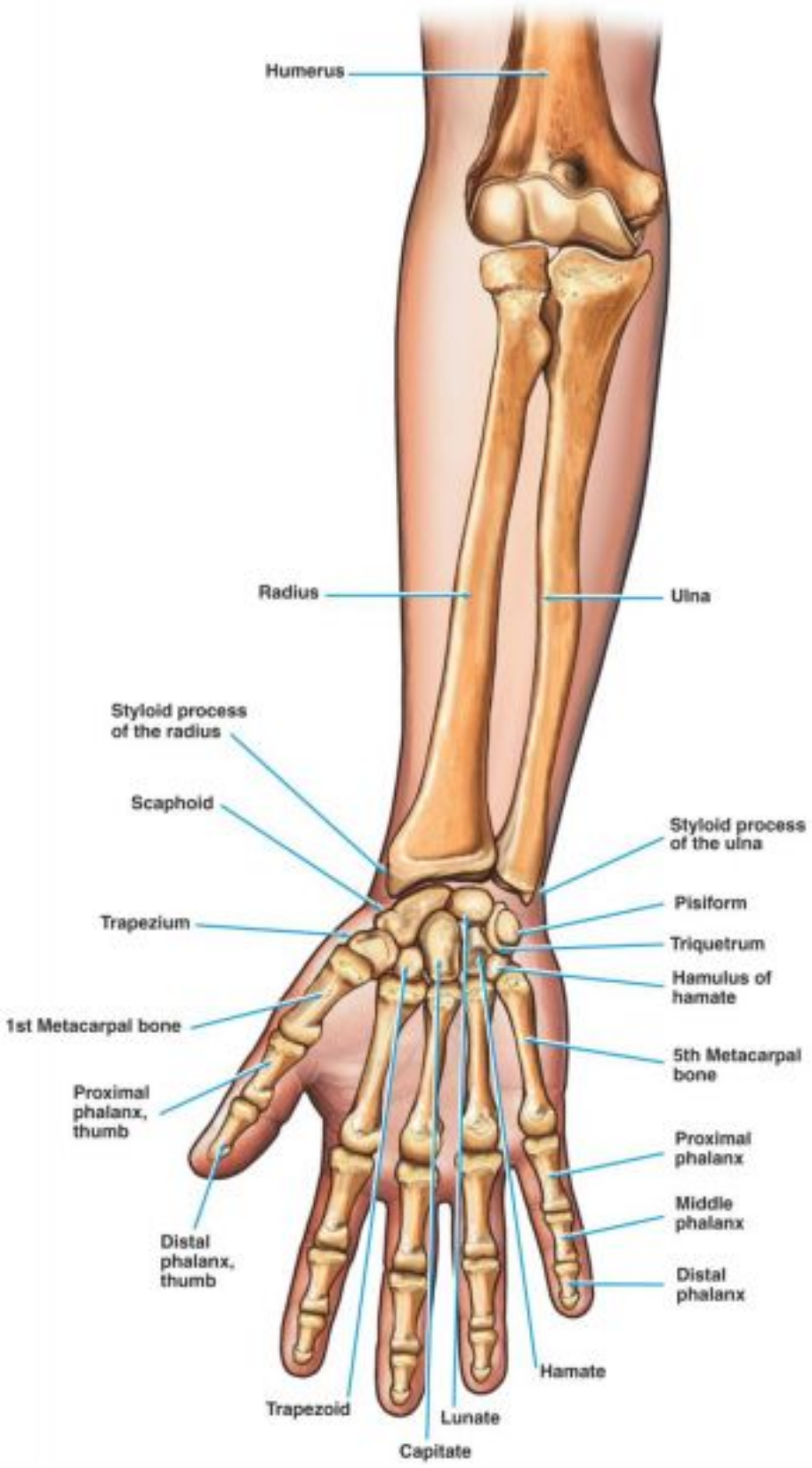
Synovial membrane: this line the capsule and is to attached to the margin of the articular surface. The joint cavity does not communicate with that of that distal radioulnar joint or joint with cavities of intercarpels joints.

Nerve supply:

Interior interosseous nerve

Deep branch of the radiul nerve.

Joints of the hand and fingers:



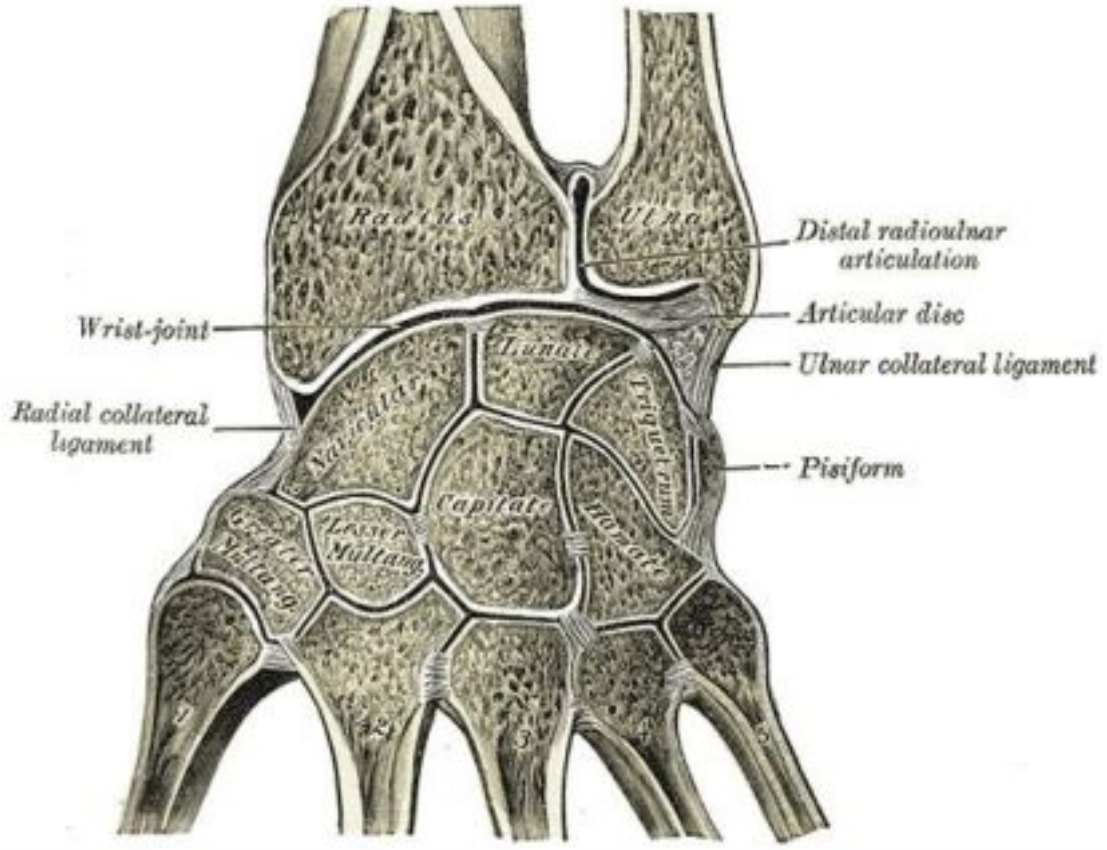
INTERCARPEL JOINT

Articulation:

- Between the individual bone of the proxmial row of the carpus;
- Between the individual bone of the distal row of the carpus. • And the finally the midcarpel joint between the proximal and distal row of carpel bone.

Synovial membrane: This line and the capsule is attached to the margin of the articular surface. The joint cavity of mid carpel joint extend not only between the two rows of carpel bone but also upward between the individual bone forming the proximal row and downward between the bone of the distal row.

Nerve supply: anterior interosseous, deep branch of the radial nerve, and deep branch of the ulnar nerve.



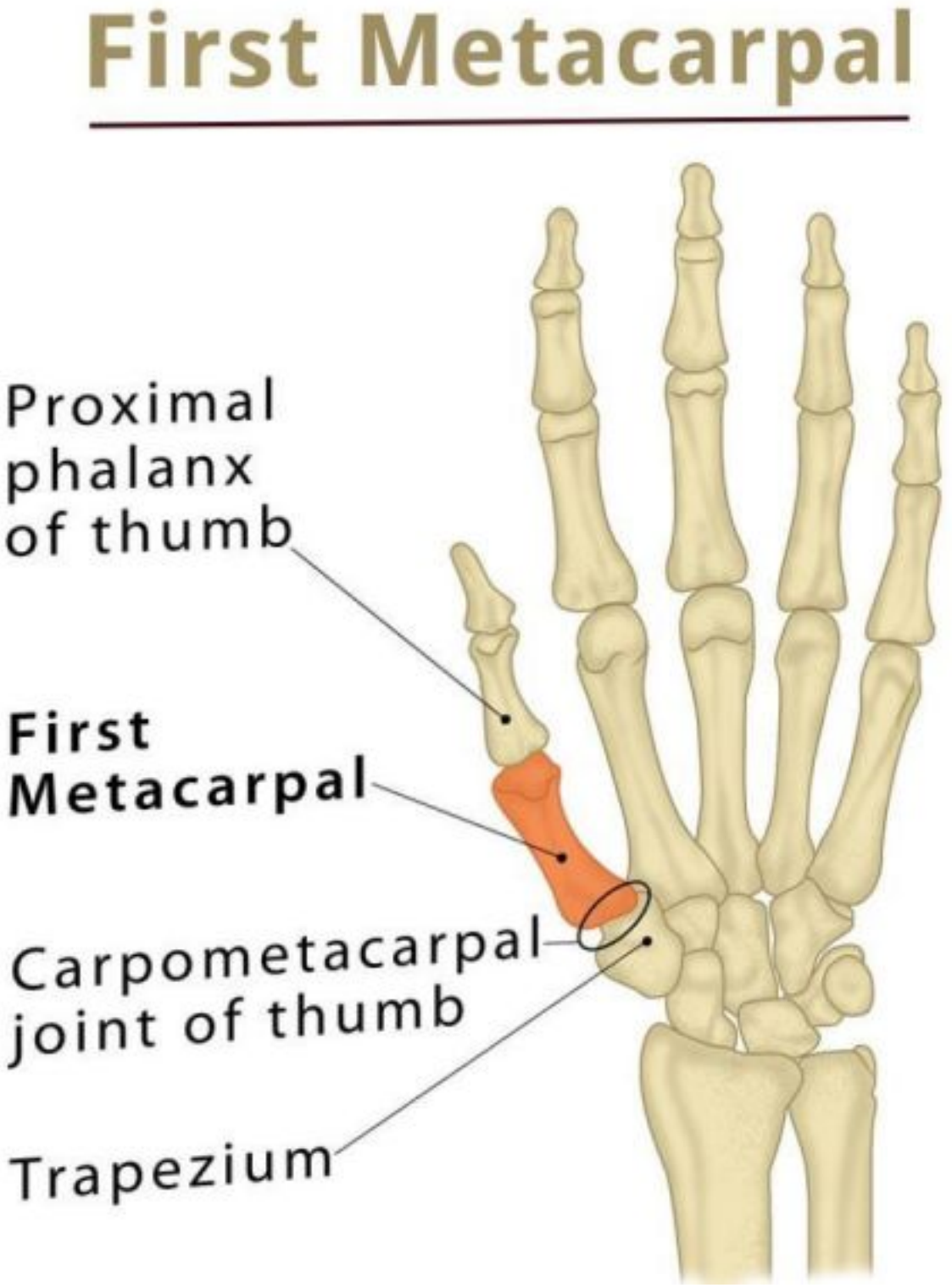
Type synovial plane joint.

Membrane A small amount of gliding movement is possible.

CARPOMETACARPELS AND INTERMETACARPELS JOINT:

The carpometacarpel and intermetocarpel joint are synoil plane joint possesing anterior, posterior and interssossous ligament. They have a common joint cavity.

A small of amount of gliding movement is possible.



CARPOMETACARPELS JOINT OF

Articulation between the tarpizum and the saddle shaped based of the first metacarpel bone.

Type synovial saddle shape capsule

Capsule: The capsule surround the joint.

Synovial Joint: This line the capsule forms a separate joint cavity.

Interphalangeal joint:

Interphalangeal joint are synovial hinge joint that have structure similar to that of the metacarpophalangeal joint.

- They are
- Proximal interphalangeal joint.
- Distal interphalangeal joint.

BONES OF SHOULDER GIRDLE

- **The clavicle**
- **The scapula**

Bone of arm: Humerous
Forearms bone: radius(is the lateral bone)
Ulna(is the medial bone)
Shoulder GIRDLE consist of
The clavicle

The scapula

THE CLAVICLE

The clavicle is a long slender bone that lies horizontally across the root of the neck just beneath the skin.

It is also called collar bone

It connects upper limbh to the trunk.

End and surfaces.

It consists

Sternal end: enlarge and triangular

Acromial end : flat

Body(shaft): elongated

It consists of four structure

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- Inferior
- Superior
- Anterior
- Posterior

Its divided into

- Medial two thirds
- Lateral one third

Medial two third of the clavicle is convex forward

And

Lateral one third is concave forward

INFERIOR SURFACE

Conoid tubercle: near the acromial end of the clavicle give attachment to the conoid ligament.

Trapezoid line near the acromial end of the clavicle, give attachment to the trapzoid ligament.

Subclavian groove is the medial third of the shaft of the clavicle give attachment to the subclavis muscle.

Costoclavicle ligament rough depressed oval area at sternal end that given attachment to the costoclavicle ligament.

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SUPERIOR SURFACE

Attachment for sternocleidomastoid muscle at medial two third of clavicle

Attachment for trapizus muscle at lateral one third of the clavicle.

Anterior Surface

Attachment for pectorallis major muscle at medial third of the clavicle.

Attachment for deltoid muscle at lateral one third of clavicle.

Fracture Of The clavicle

It is the most commonly fracture in the body

The fracture usually occur usually occur as result of a fall on the shoulder or unstrected hand,the force transmit into clavicle, which break to its weakest point

The junction of the middle and outer thirds.

After the fracture the lateral fragment is depressed by the weight of the arm and it is pulled midally and forward by the strong adductor muscle of the shoulder joint,especially the pectorad major.