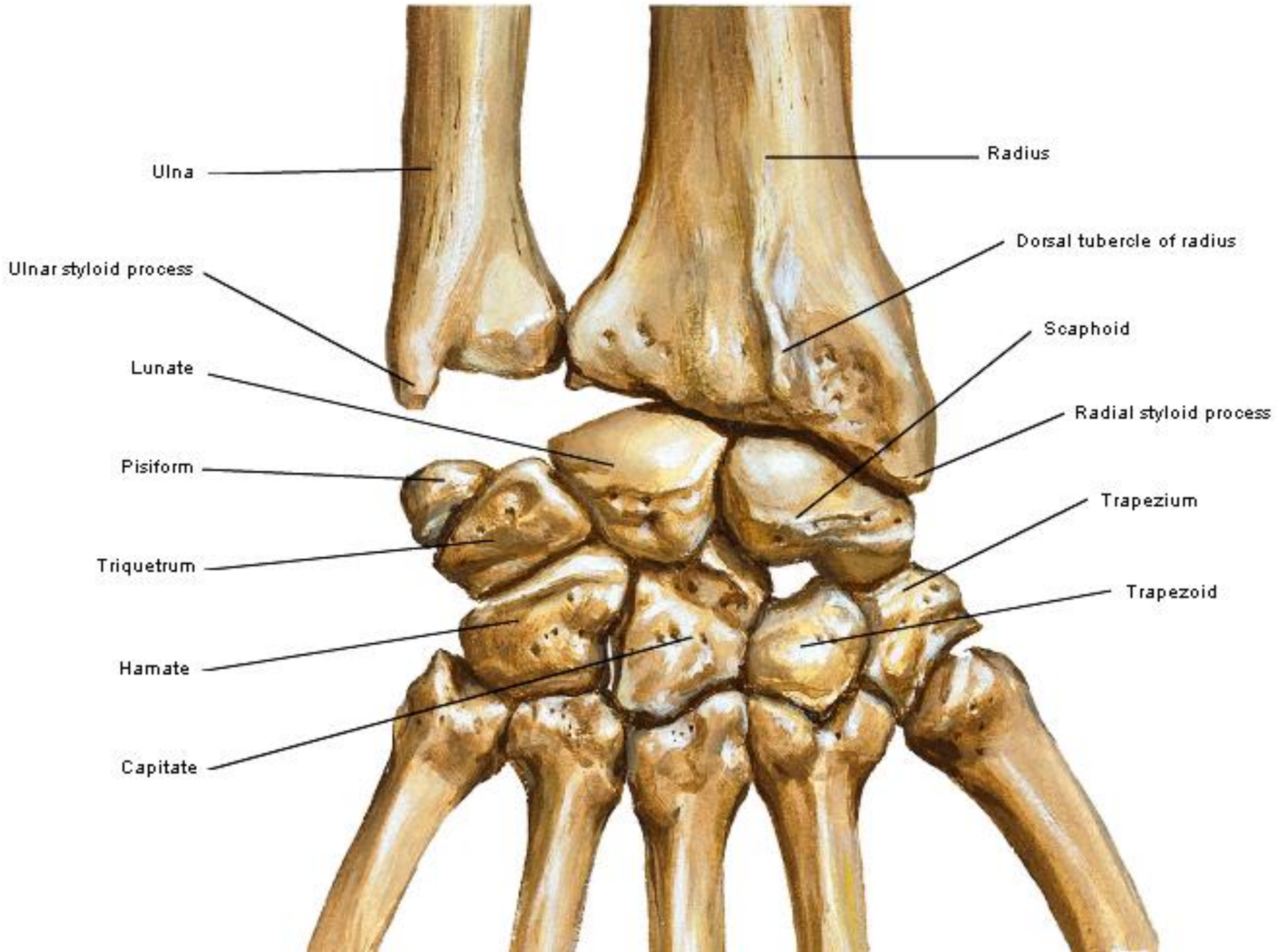


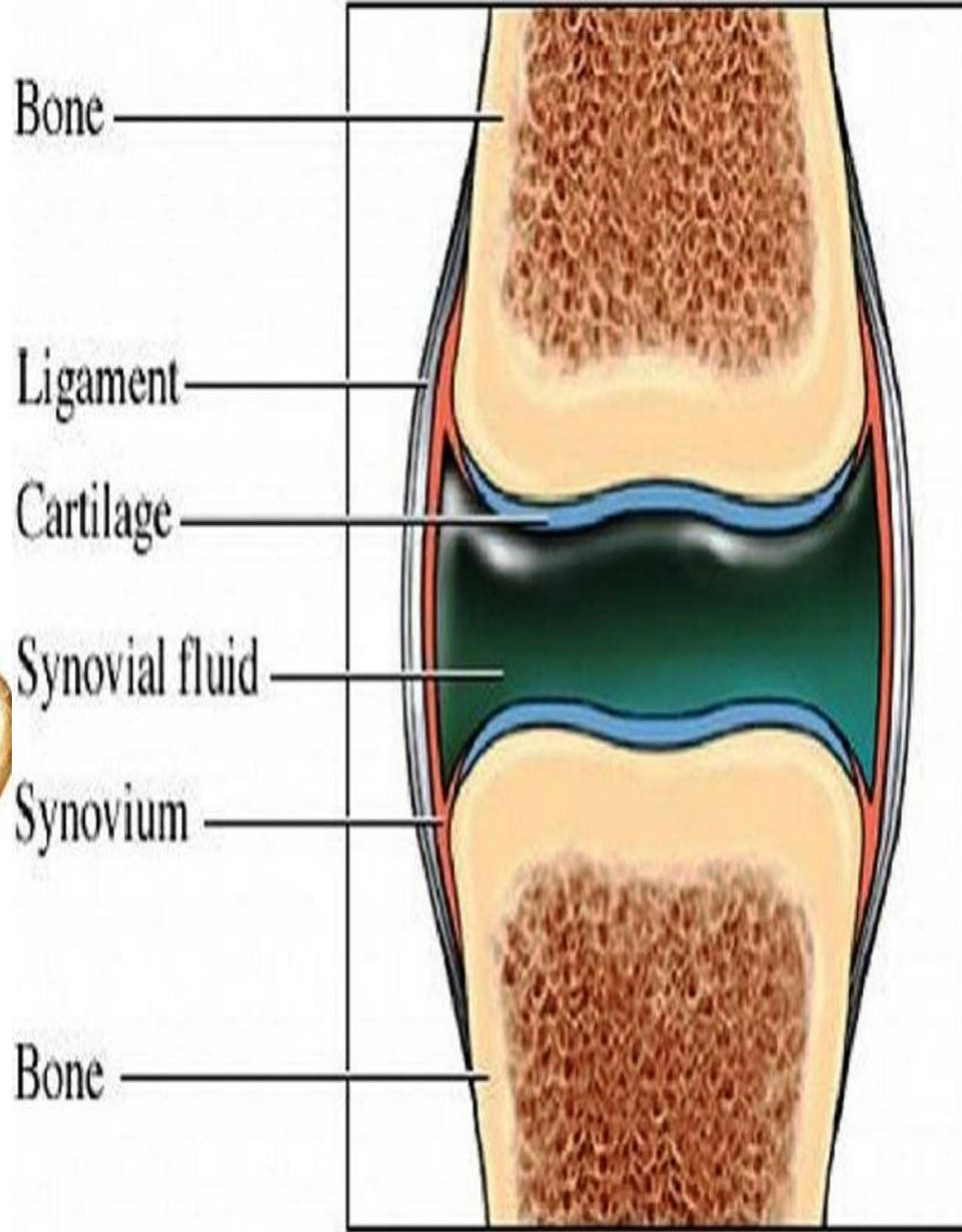
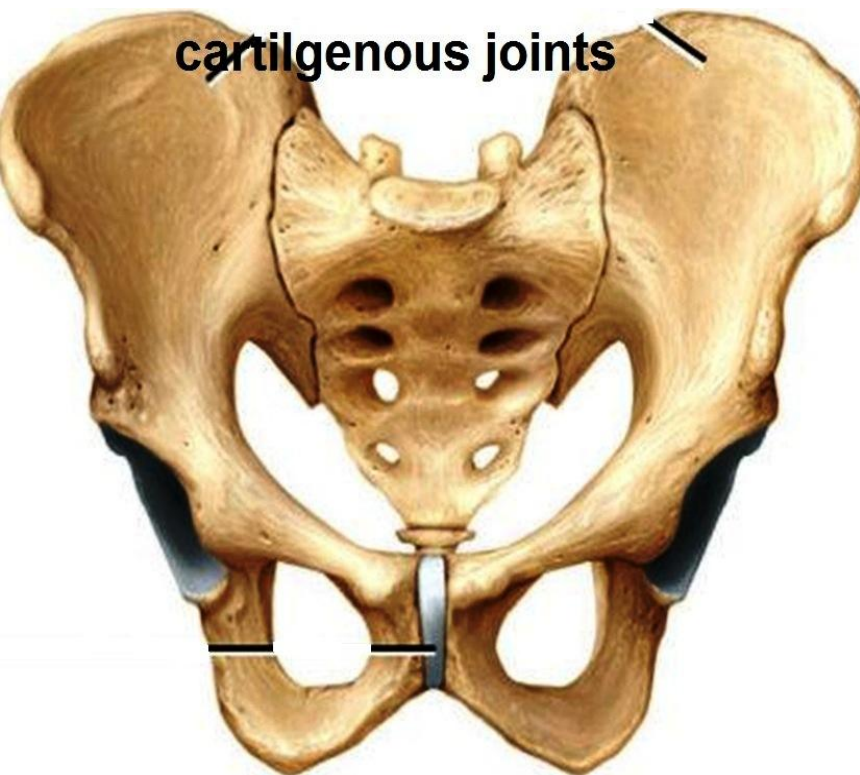
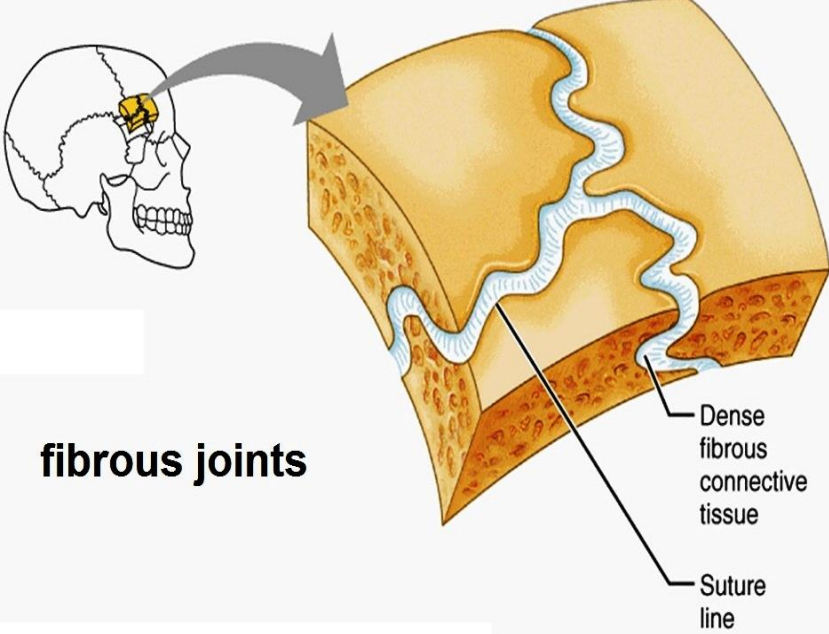
WRIST & JOINTS OF THE HAND



BY

DR ABULMAATY MOHAMED
ASSISTANT PROFESSOR
ANATOMY & EMBRYOLOGY
MUTAH UNIVERSITY





synovial joints

WRIST JOINT

Type:- Synovial

Variety:- Ellipsoid

Articular Surface:-

Above:- Inferior surface of lower end of radius
articular disc of inferior radioulnar joint

Below:-

Proximal row of carpal bones
(scaphoid , lunate , triquetral)

N.B. Ulna never share in wrist joint

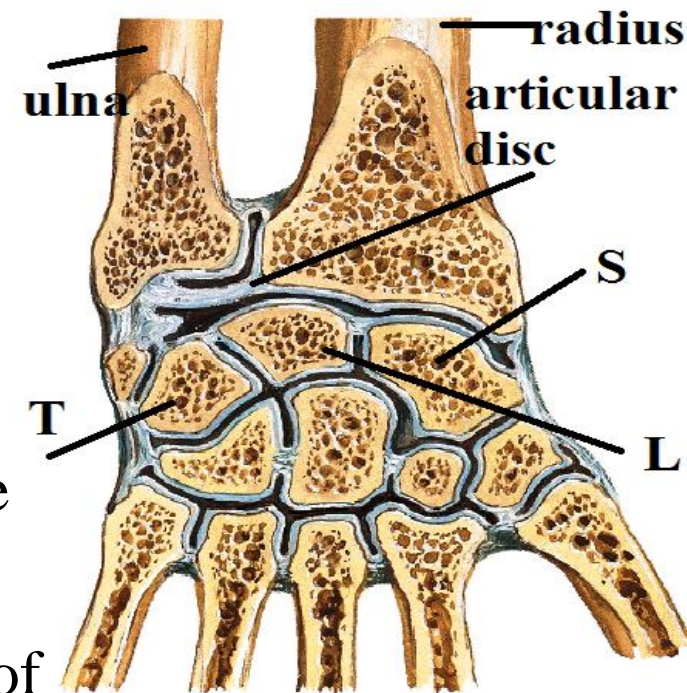
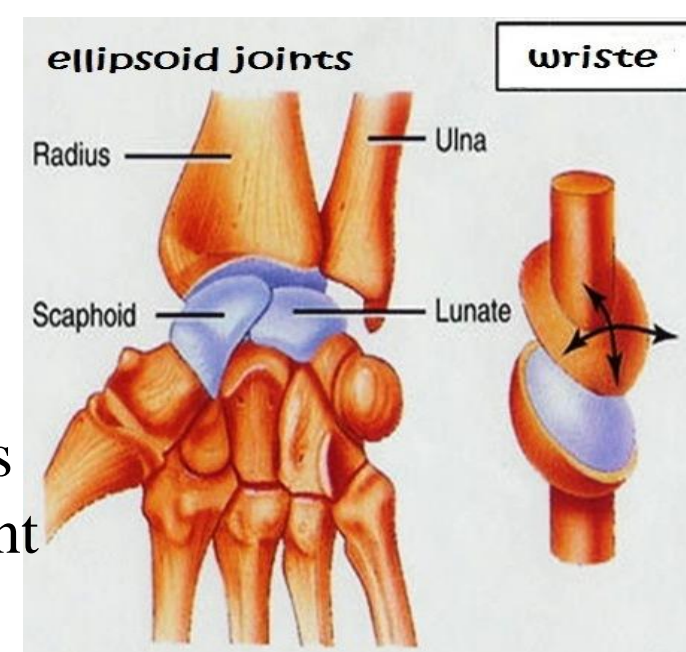
pisiform also doesn't share in wrist joint

Capsule

Attachment: To margins of the articular surface

Characters: Thin

Synovial membrane:- Lines the inner surface of the capsule.



WRIST JOINT

Ligaments:-

Anterior radio carpal ligament

Extends from anterior margin of lower end of radius to front of carpal bones

Posterior radio carpal ligament

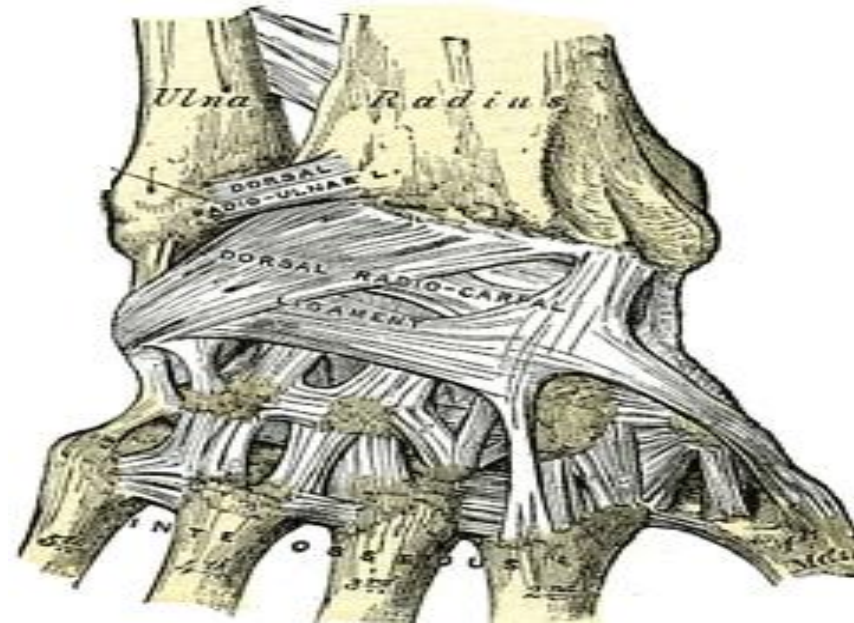
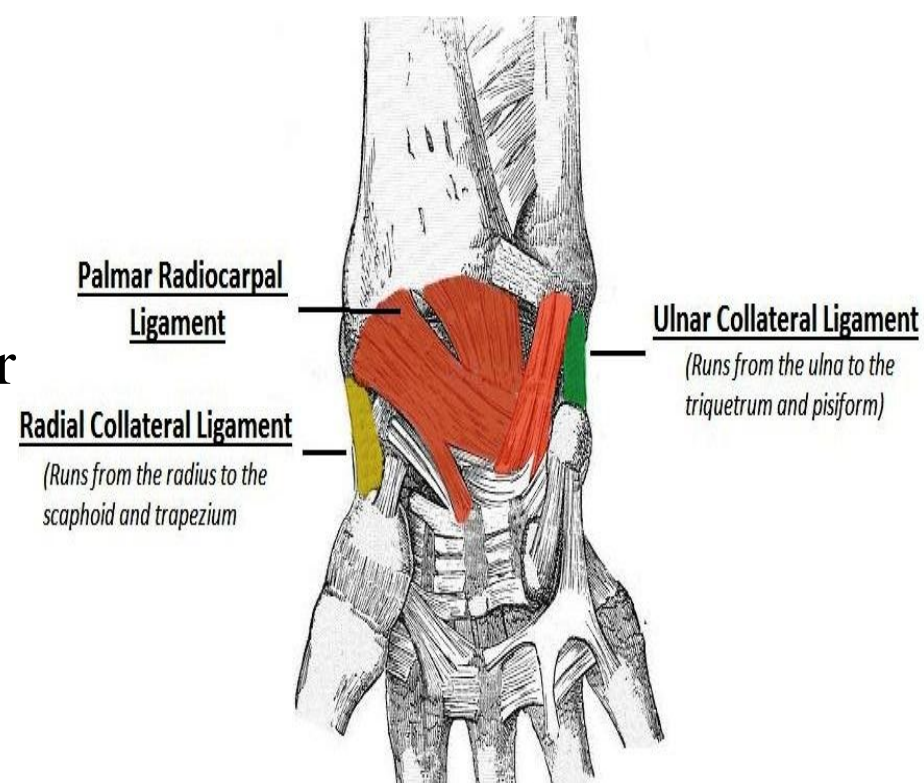
Extends from posterior margin of lower end of radius to back of carpal bones

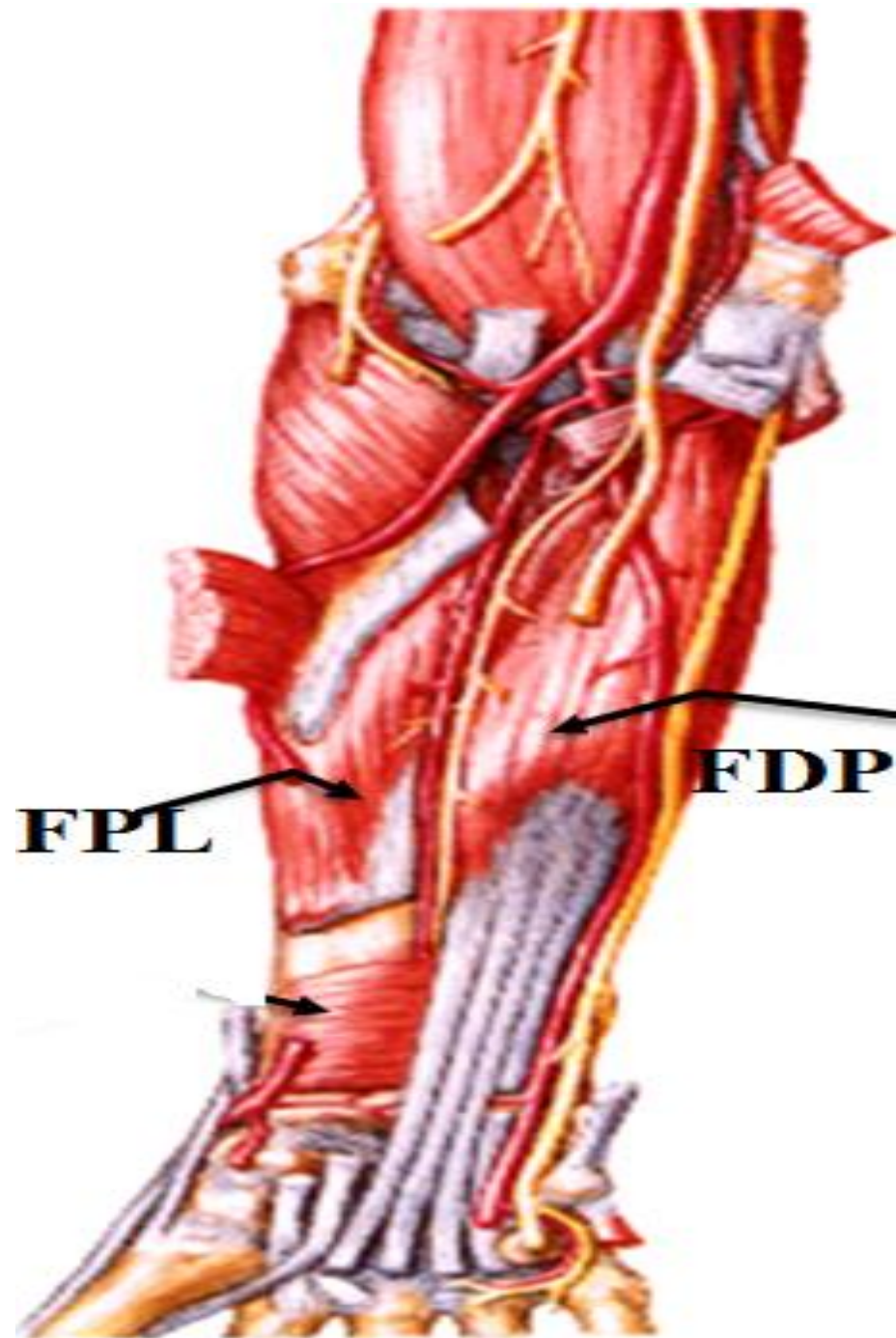
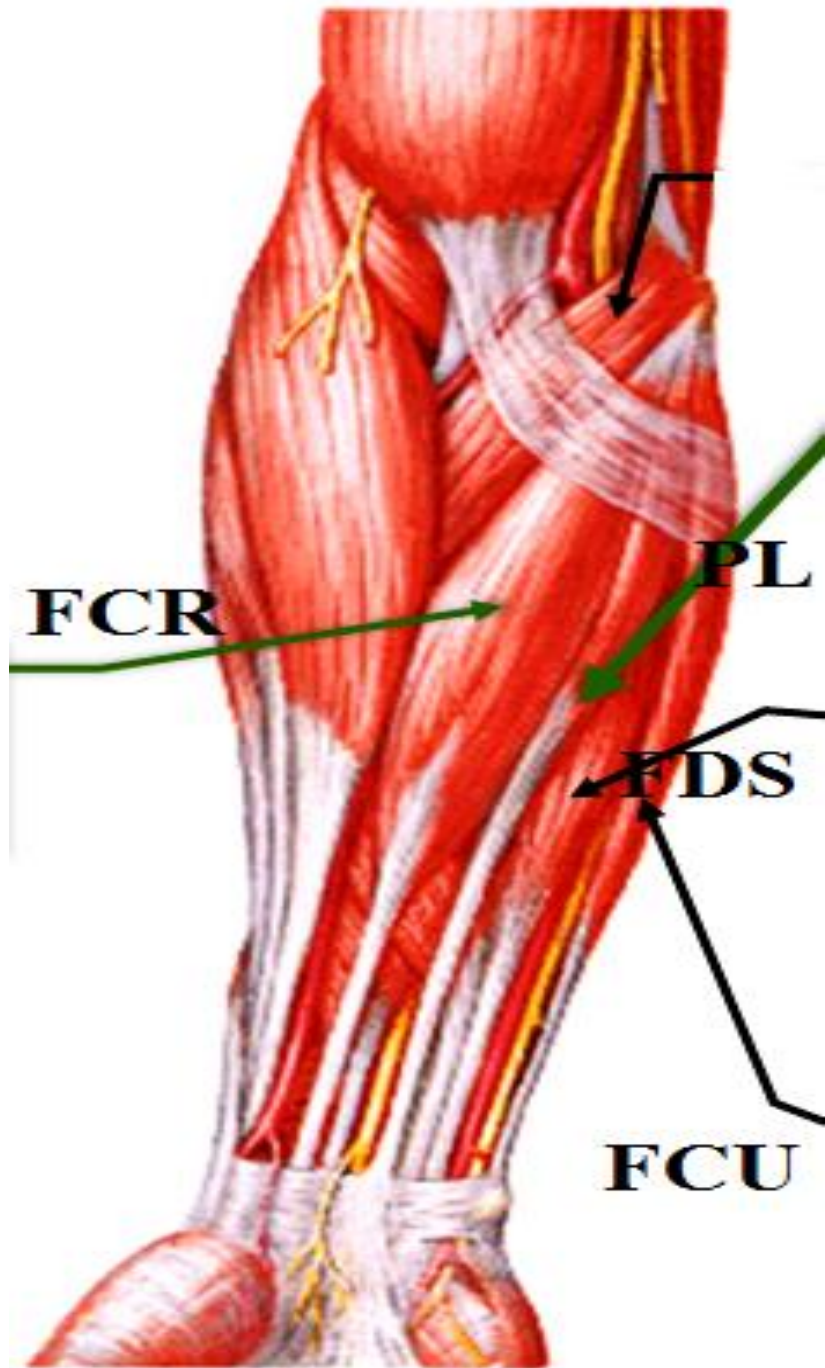
Ulnar collateral (medial) ligament

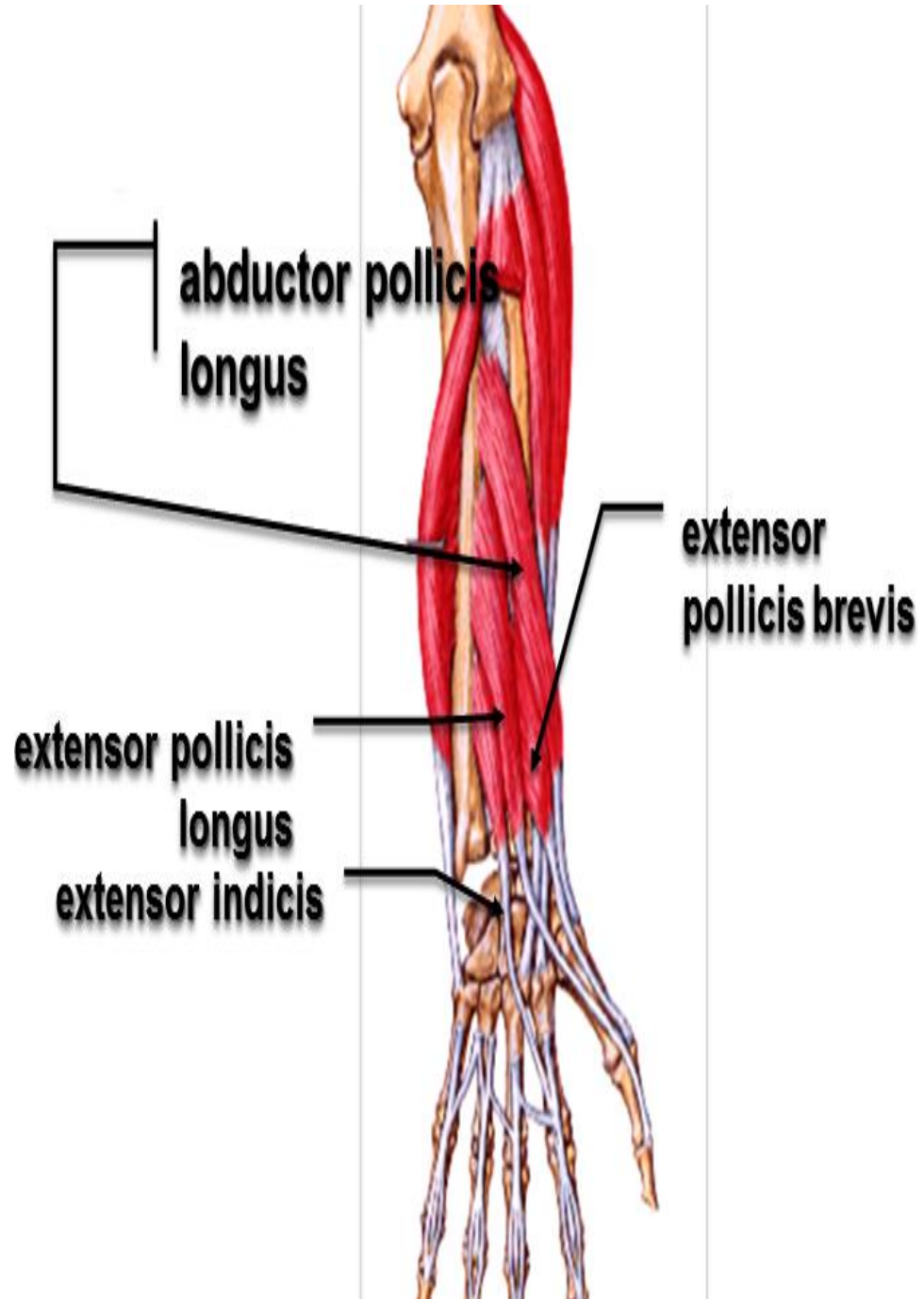
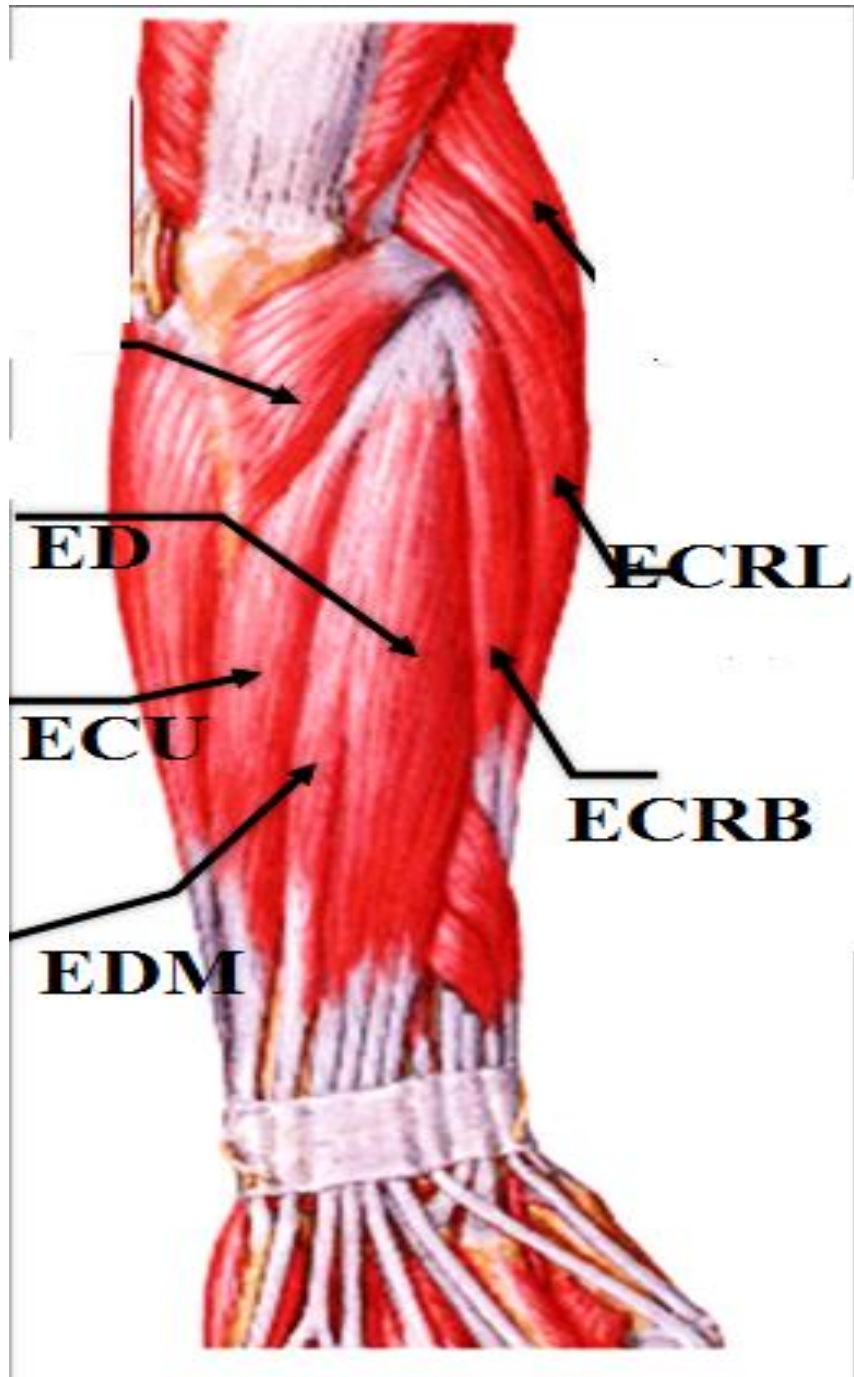
Extends from tip of styloid process of ulna to pisiform and medial side of triquetral bones

radial collateral (lateral) ligament

Extends from tip of styloid process of radius to lateral side of scaphoid







WRIST JOINT

Relations

Anteriorly:

Contents of the carpal tunnel

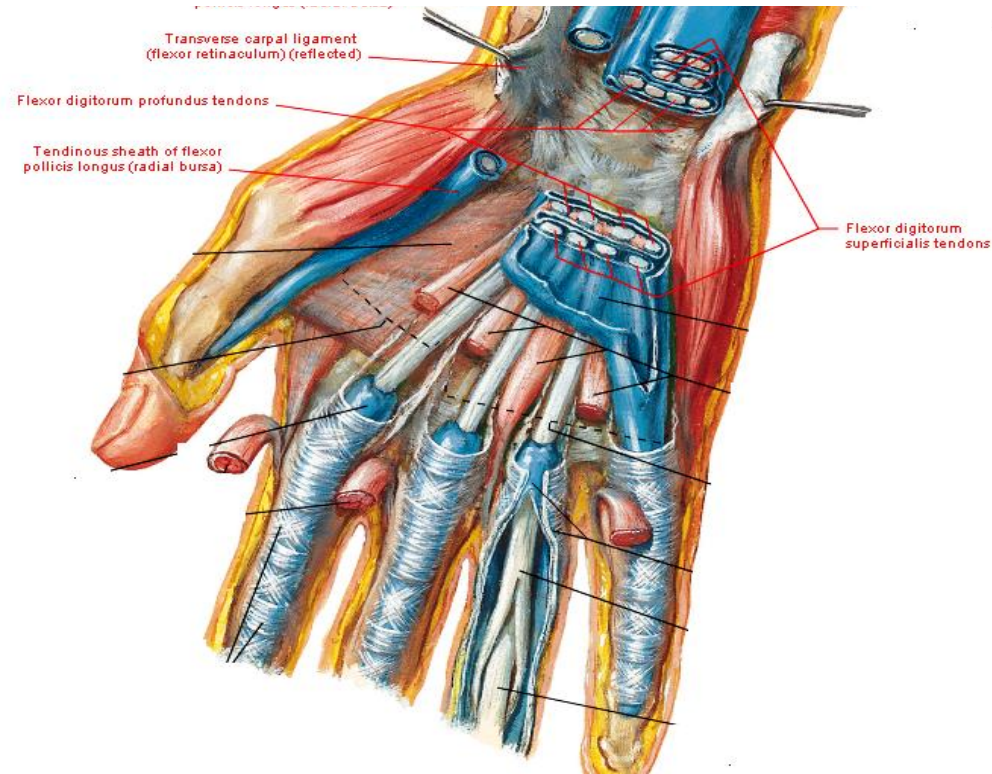
1-Median nerve

2-Tendons of flexor digit. superficialis

3- Tendons of flexor digi. profundus

5-Tendon of flexor pollicis longus

5-Tendon of flexor carpi radialis



WRIST JOINT

Relations

Posteriorly:

contents of 2nd – 6th compartments of the extensor retinaculum

2nd compartment contains: ECRL-ECRB

3rd compartment contains: EPL

4th compartment contains:

1-ED

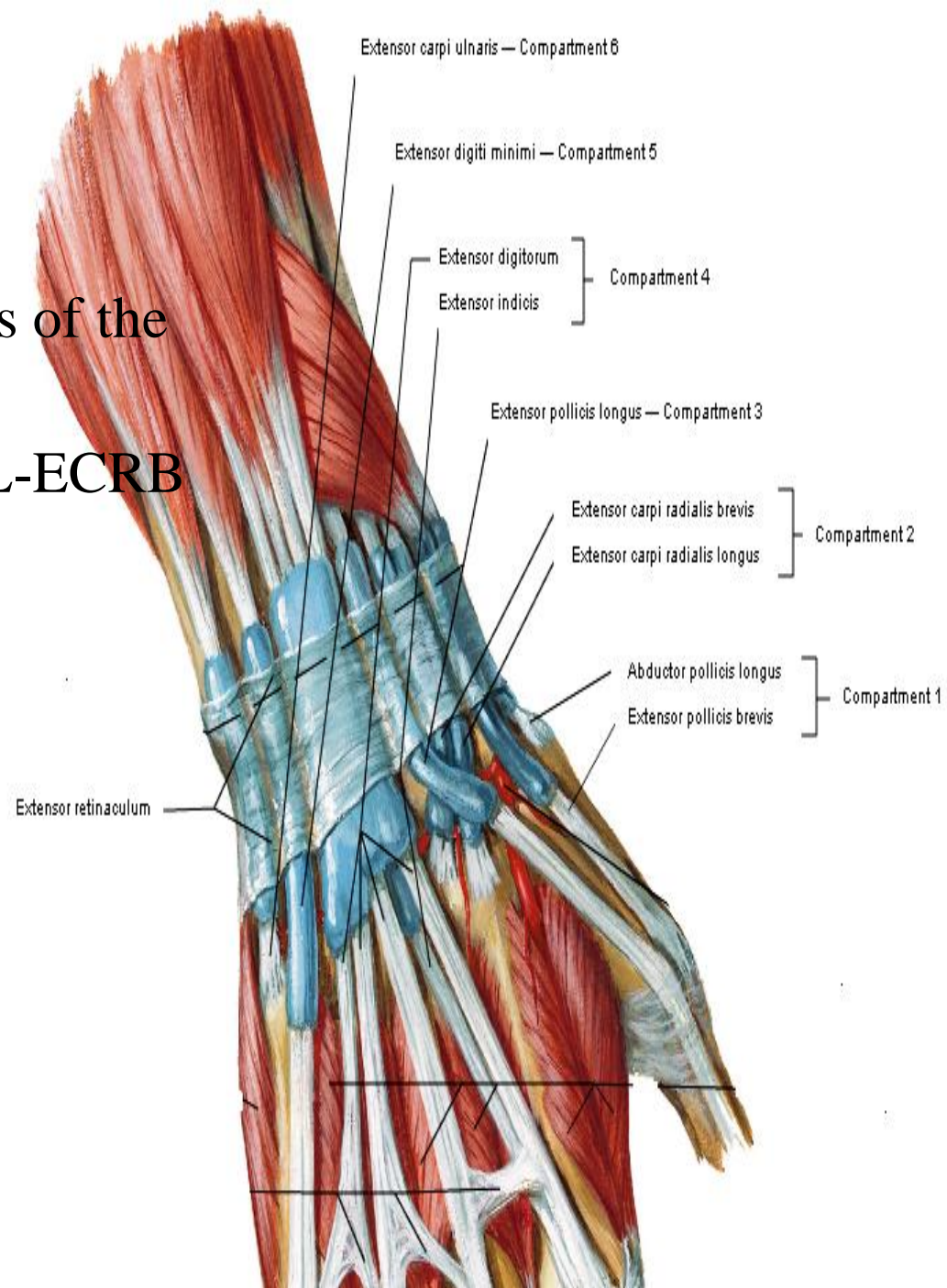
2-EI

3-ant. interosseous art.

4-post. interosseous n.

5th compartment contains: EDM

6th compartment contains: ECU



WRIST JOINT

Relations

Laterally:-

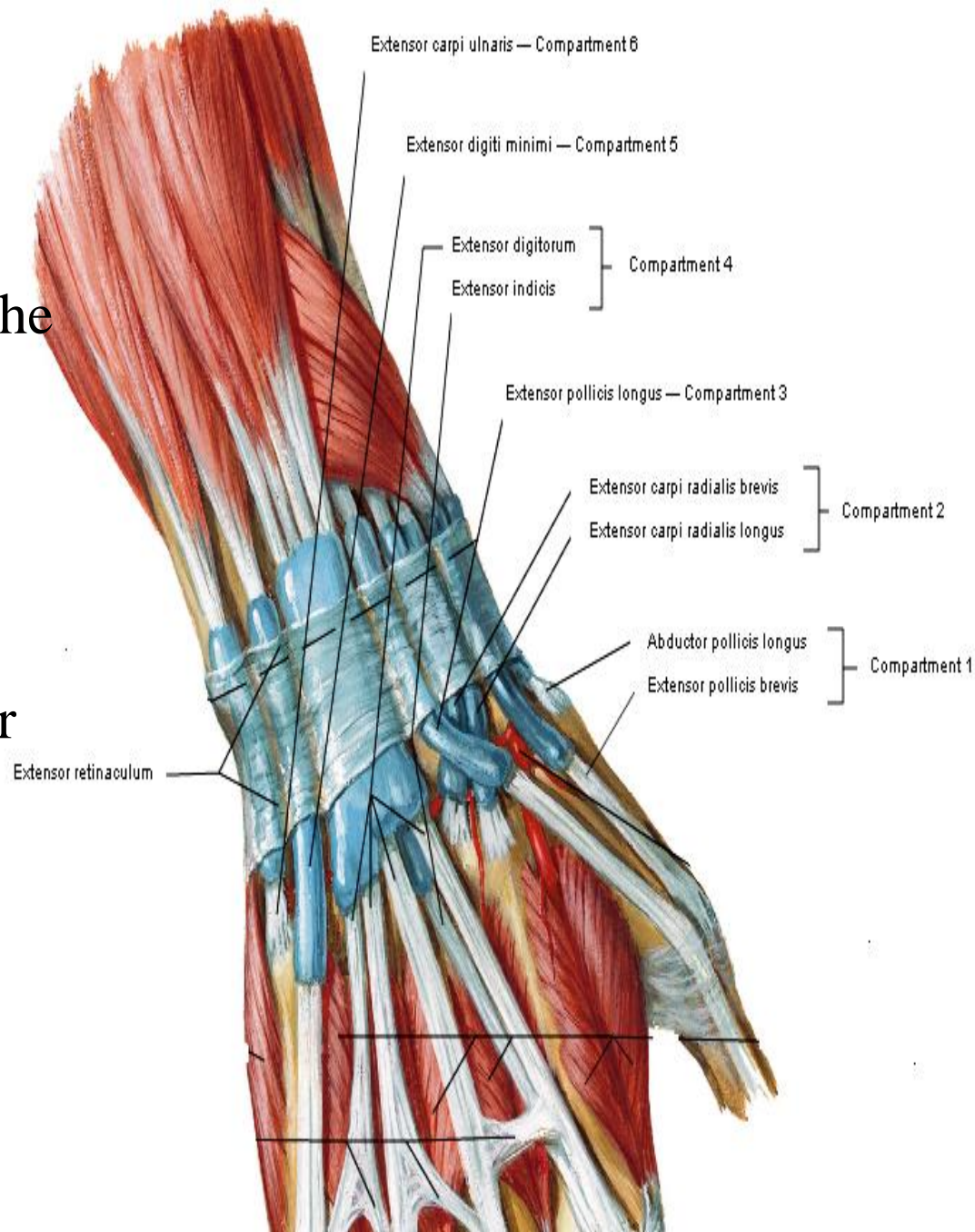
contents of 1st compartment of the extensor retinaculum

Abductor pollicis longus.

ext. pollicis brevis.

Medially:

dorsal cutaneous branch of ulnar nerve



WRIST JOINT

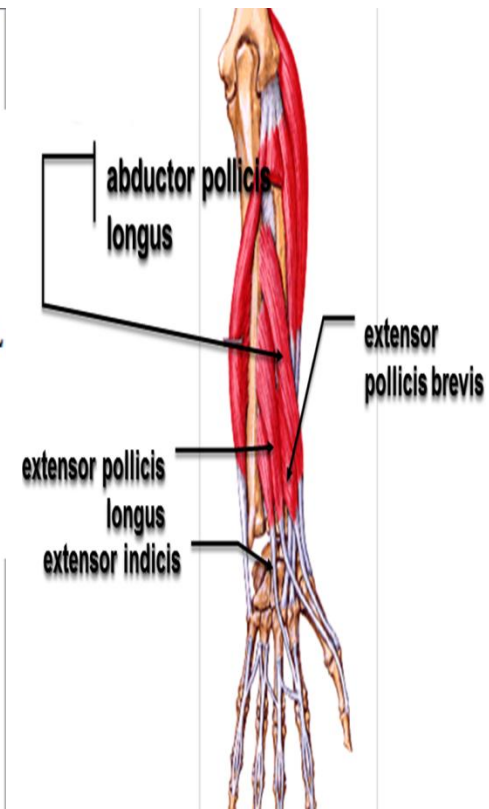
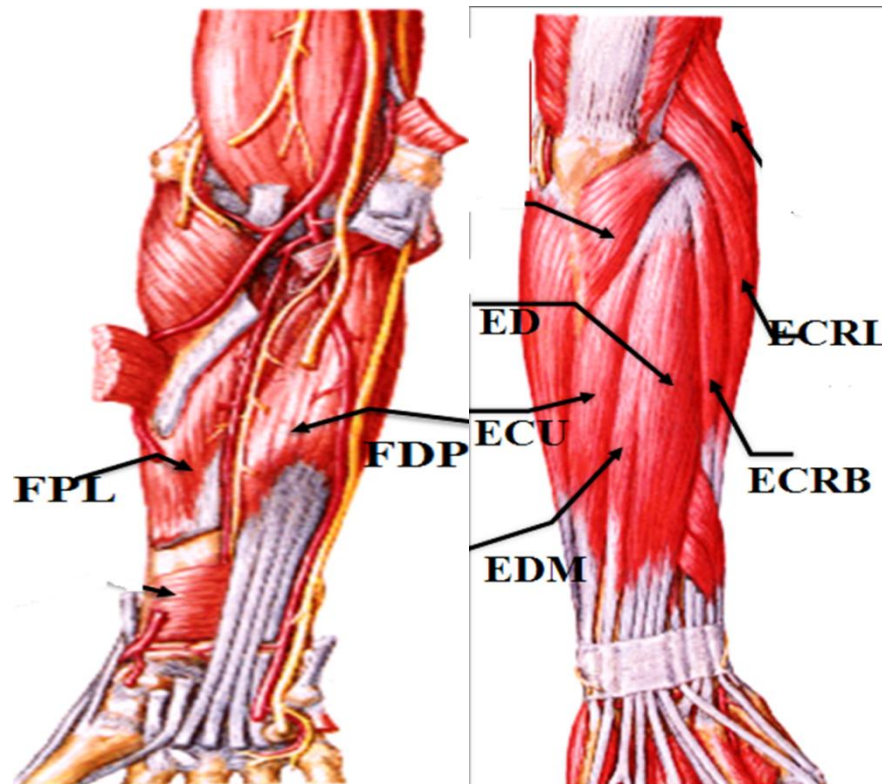
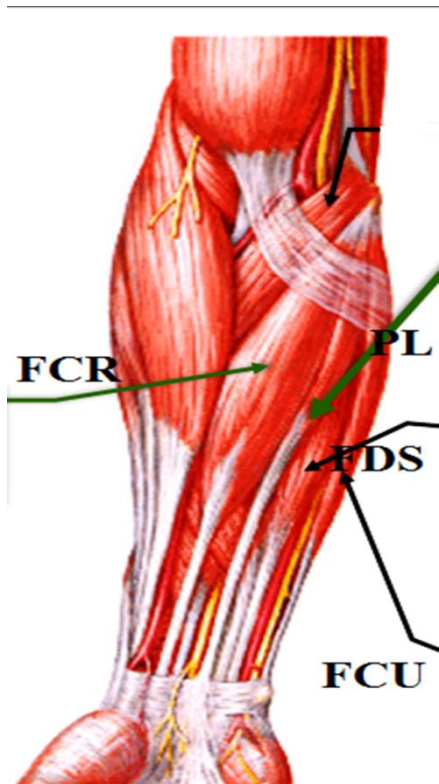
Movements

Flexion: FCR PL FDS FCU FDP FPL

Extension: ECRL ECRB ED EDM ECU EI EPL

Abduction:- FCR ECRL ECRB

Adduction:- FCU ECU



JOINTS OF THE HAND

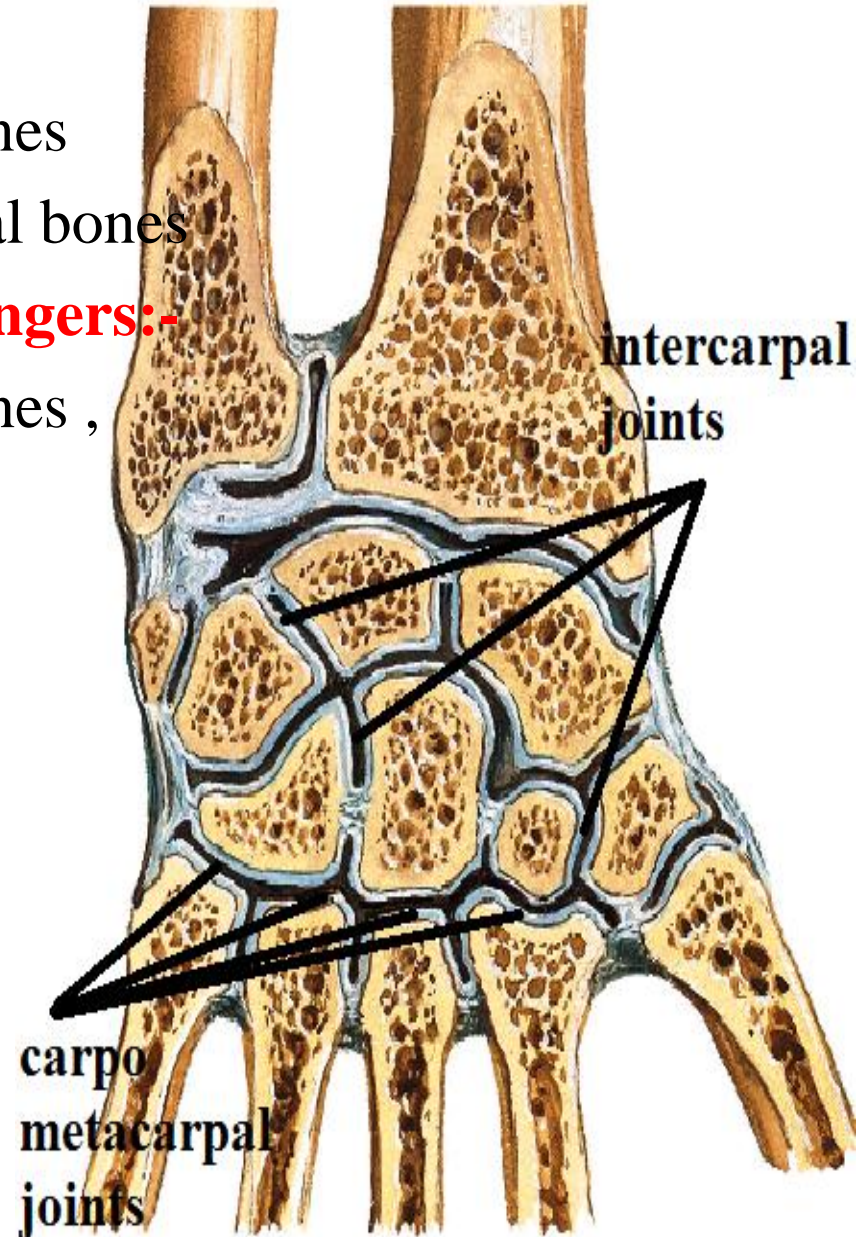
JOINTS OF THE HAND

Intercarpal joints:-

plane Synovial joints between carpal bones
Allow sliding movements between carpal bones

Carpometacarpal joints of medial 4 fingers:-

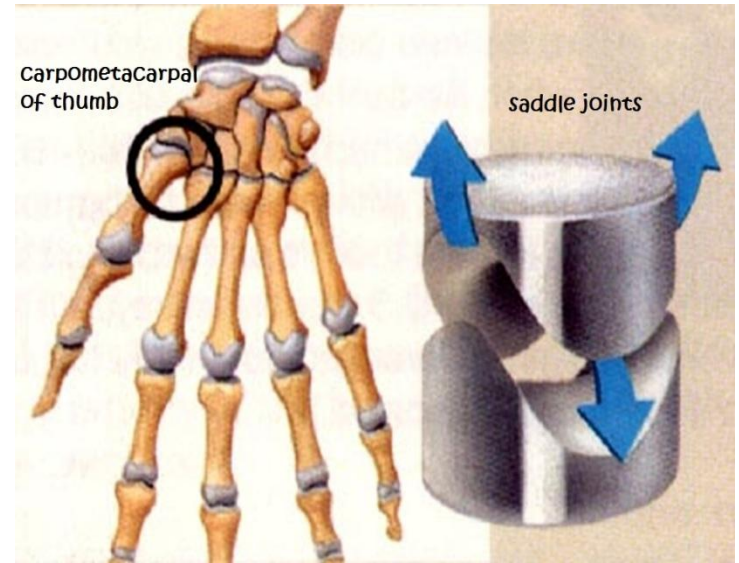
plane Synovial joints between carpal bones ,
bases of metacarpal bones
Allow sliding



JOINTS OF THE HAND

Carpometacarpal joint of thumb:-

Saddle synovial joint between trapezium & base of 1st metacarpal bone allow



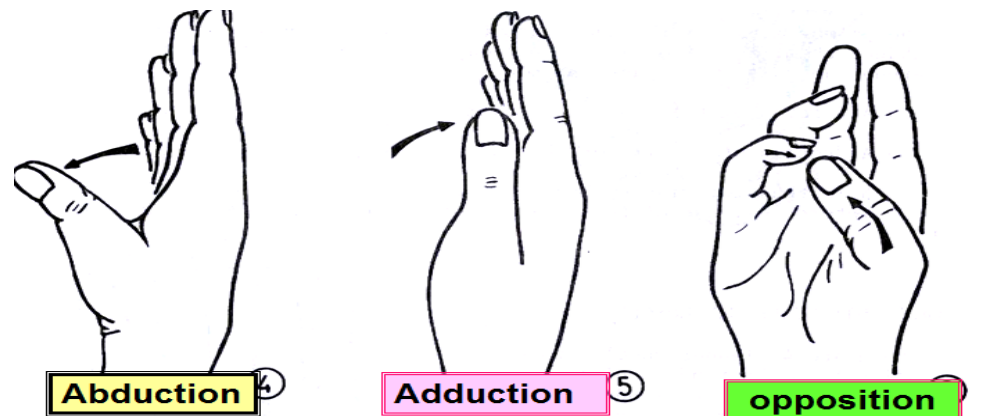
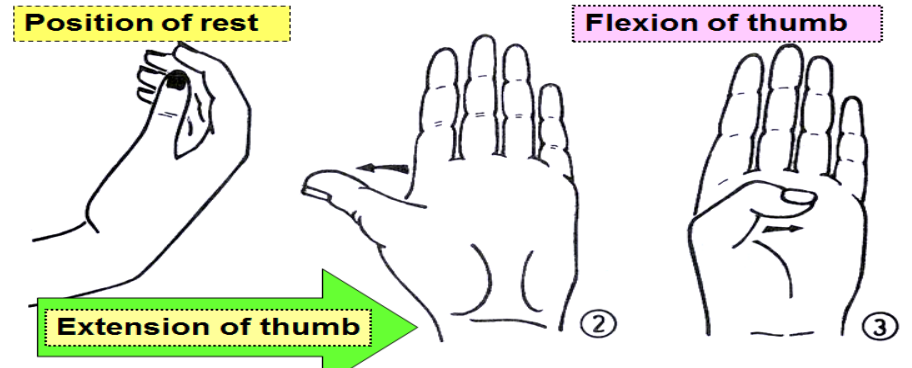
Flexion:- FPL & FPB

Extension:- EPL & EPB

Abduction:- APL & APB

Adduction:- Adductor pollicis

Opposition:- Opponense pollicis



JOINTS OF THE HAND

Metacarpophalangeal joint :-

ellipsoid synovial joints

Allow

Flexion FDS & FDP

Extension :- ED , EI , EDM

Adduction:- Palmar interossei

Abduction:- dorsal interossei

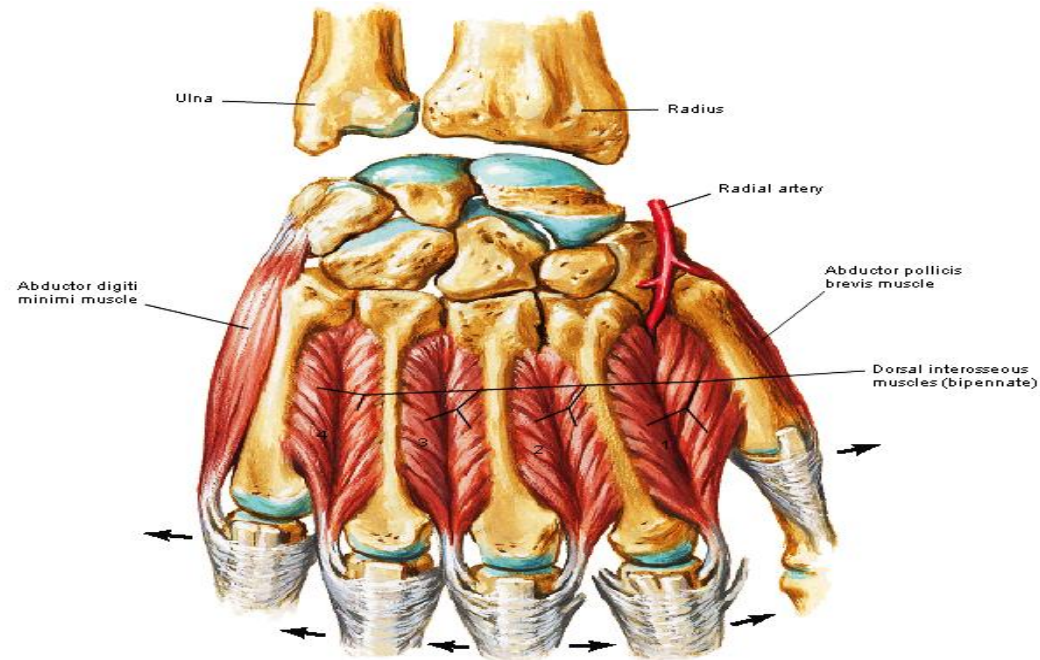
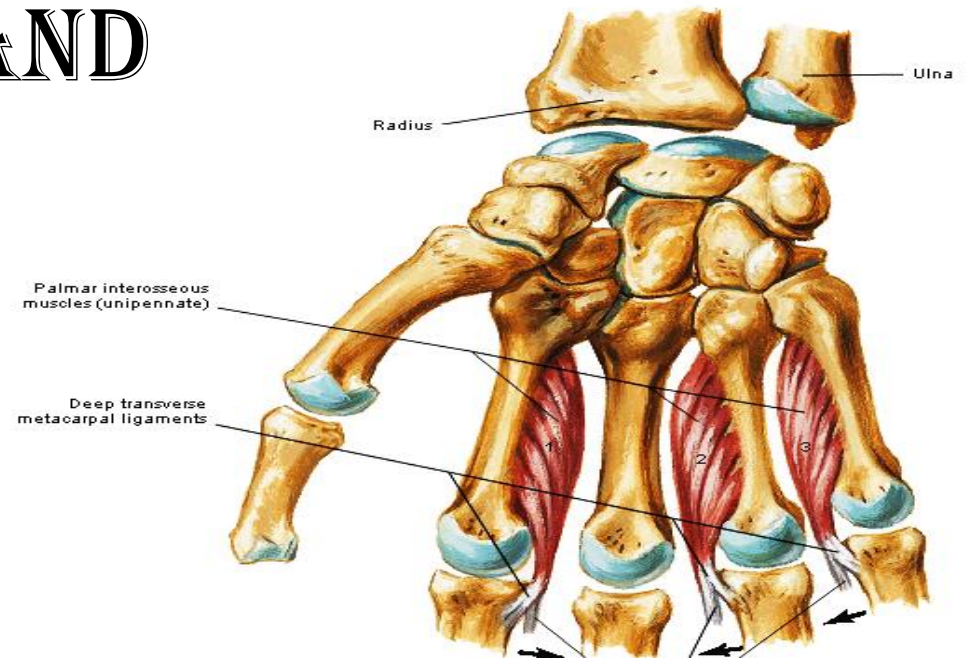
Interphalangeal joints

hinge synovial joints

allow

flexion ,

extension



THANQ