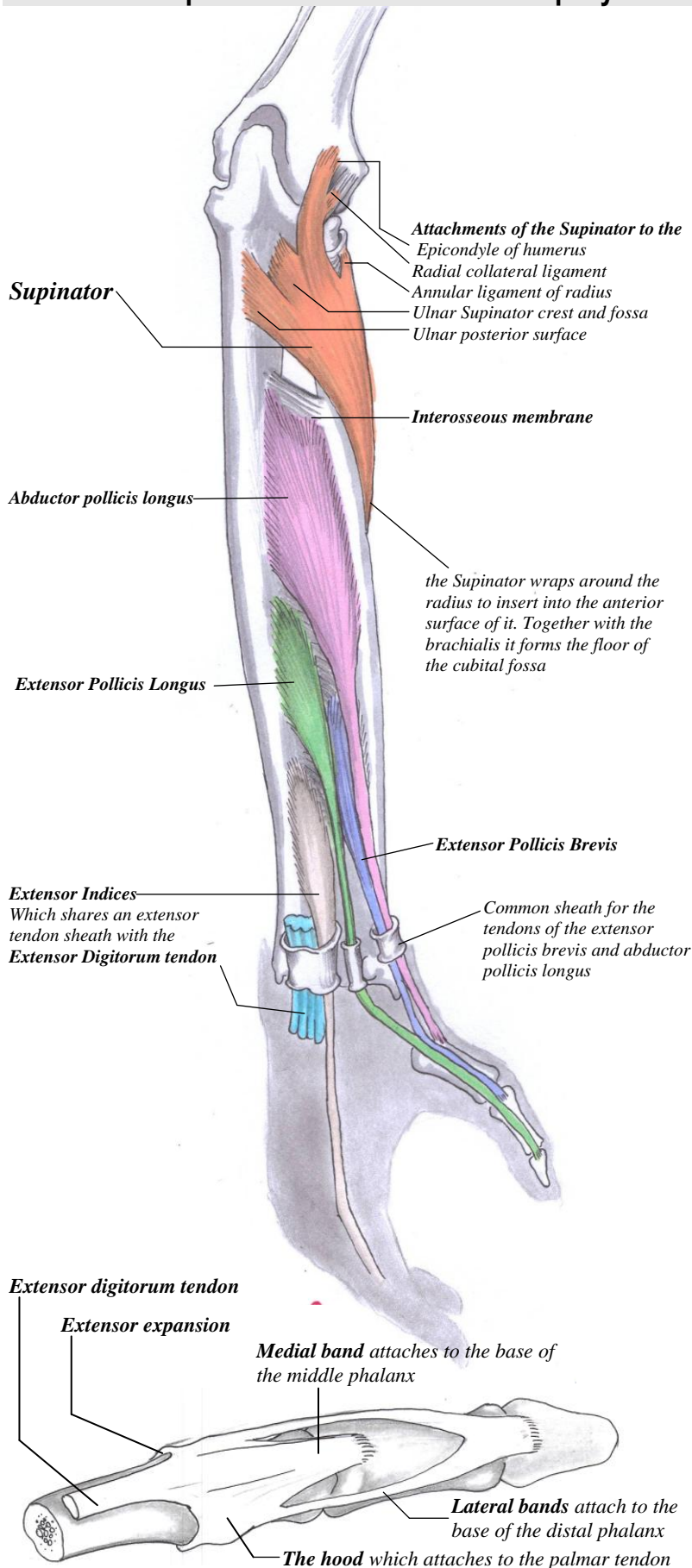


Extensor Compartment of the Forearm: Deep layer



DEEP LAYER OF EXTENSORS

"true" deep layer

- **Supinator**
 - **deep branch of radial nerve** which pierces it on its way to transforming into the posterior interosseous nerve
 - originates from everywhere... the lateral humeral epicondyle, the radial collateral ligament, the annular ligament, the supinator fossa and the crest of ulna
 - inserts into the lateral posterior and anterior surfaces of the proximal third of radius
 - it supinates the forearm, turning the arm to face anteriorly and superiorly when the forearm is flexed. It is the **PRIME MOVER** for slow unopposed supination
 - The supinator forms the floor of the cubital fossa together with brachialis. It is a sheet-like muscle, and it envelops the radius.
- **Extensor Indicis**
 - **Posterior interosseous nerve**
 - originates from the posterior surface of the distal third of the ulna, and the interosseous membrane
 - inserts into the extensor expansion of the index finger
 - extends the index finger, enabling independent extension
 - helps extend the hand at the wrist

"outcropping" deep layer

these originate from the proximal, middle and distal thirds of the ulna (as a generalization). They emerge in the surface in the furrow that forms in the extensor compartment

- **Abductor Pollicis Longus**
 - **Posterior interosseous nerve**
 - originates from the posterior surface of the proximal radius and ulna, as well as the interosseous membrane
 - inserts into the base of the 1st metacarpal, and occasionally also the trapezium.
 - abducts and extends the thumb at the carpometacarpal joint
 - shares a common tendon sheath with the extensor pollicis brevis at the wrist
- **Extensor Pollicis Brevis**
 - **Posterior interosseous nerve**
 - originates from the posterior surface of the distal third of the ulna, and the interosseous membrane
 - inserts into the dorsum of the base of the proximal phalanx of the thumb
 - extends the proximal phalanx of the thumb at the metacarpophalangeal joint; also extends the carpometacarpal joints of the thumb.
 - partly covered by the abductor pollicis longus
 - its tendon is immediately medial to the APL
 - **these two tendons form the anterior boundary of the anatomical snuffbox.**
- **Extensor Pollicis Longus**
 - **Posterior interosseous nerve**
 - originates from the posterior surface of the middle third of the ulna, and the interosseous membrane
 - inserts into the dorsum of the base of the distal phalanx of the thumb
 - extends the distal phalanx of the thumb; also extends the metacarpophalangeal and the carpometacarpal joints of the thumb. It also rotates the thumb laterally.
 - It enjoys its own tendon sheath at the wrist; it passes medially over the dorsal tubercle of radius, using it as a pulley.
 - **the EPL forms the posterior border of the anatomical snuffbox**

APL inserts into the base of 1st metacarpal
EPB inserts into the base of proximal phalanx
EPL inserts into the base of distal phalanx