

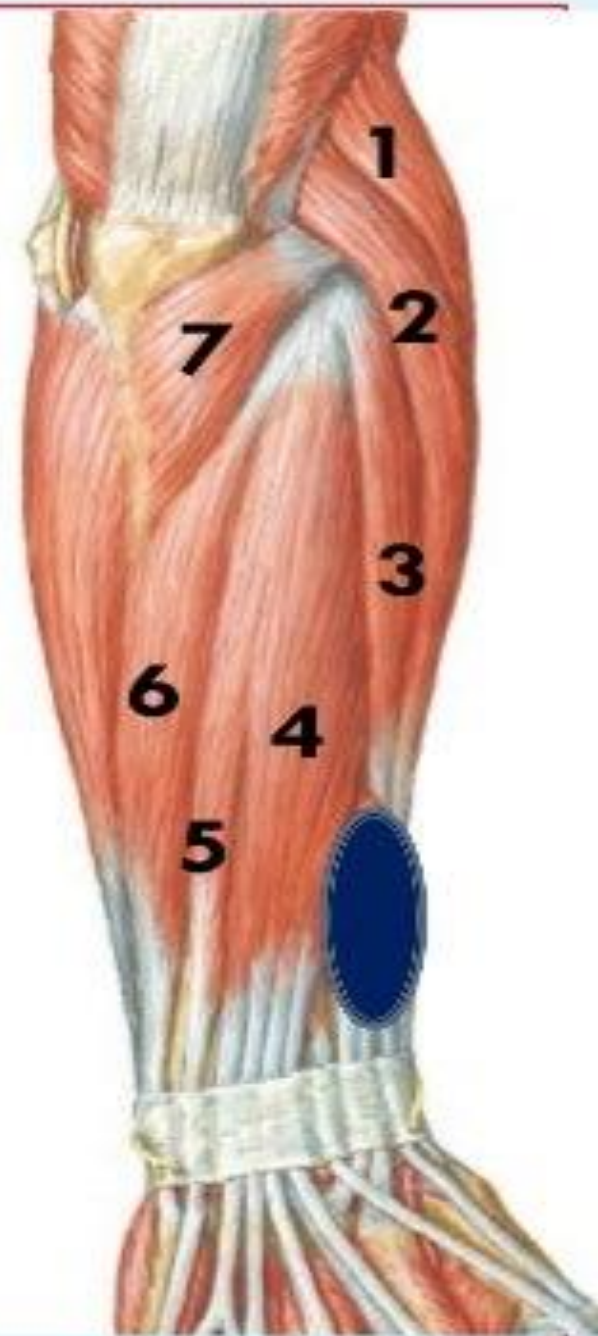
Muscles of back of forearm



Superficial group (7)

Deep group (5)

1. Brachioradialis
2. Extensor carpi radialis longus
3. Extensor carpi radialis brevis
4. Extensor digitorum
5. Extensor digiti minimi
6. Extensor carpi ulnaris
7. anconeus



Superficial Group of Back of Forearm

- Most of these muscles arise from the front of lateral epicondyle of the humerus i.e. common extensor origin (C.E.O) except muscles number 1,2,7.
- All these muscles are supplied by **posterior interosseous nerve** (a branch of radial nerve) except muscles number 1,2&7 which are supplied by radial nerve.
- Common action : Extension of wrist (except muscles number 1 & 7)
- Extensor carpi radialis longus & brevis and extensor carpi ulnaris are the main extensors of wrist.



	Brachioradialis
	Extensor carpi radialis longus and brevis
	Extensor digitorum
	Extensor digiti minimi
	Extensor carpi ulnaris
	Anconeus

1- Brachioradialis

Origin:

Upper 2/3 of lateral supracondylar ridge of the humerus.

Insertion

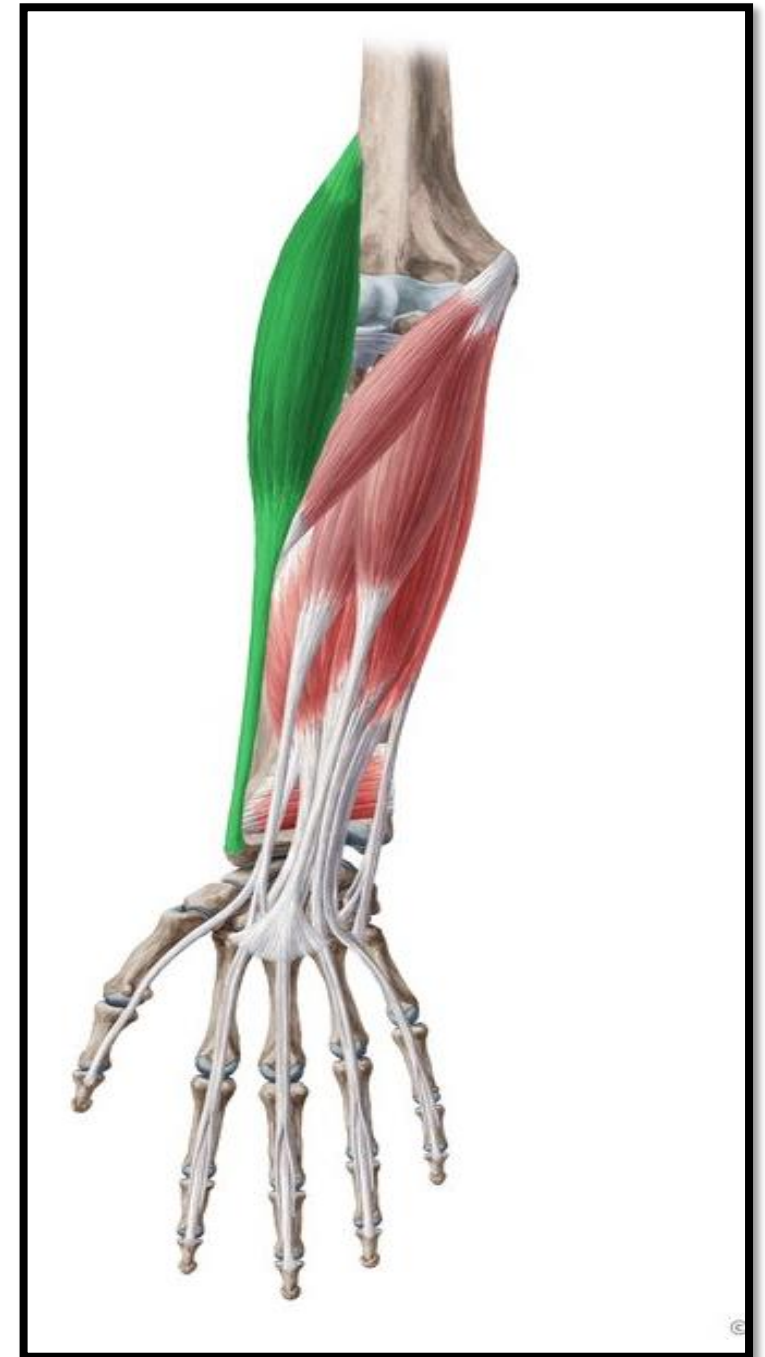
Base of styloid process of radius.

Nerve supply:

Radial nerve.

Action:

Flexion of elbow at midprone position.



2- Extensor carpi radialis longus

Origin:

Lower 1/3 of lateral supracondylar ridge of the humerus.

Insertion:

Posterior surface of base of 2nd metacarpal bone.

Nerve supply:

Radial nerve.

Action:

Extension and abduction of wrist.



3- Extensor carpi radialis brevis

Origin:

Common extensor origin (front of lateral epicondyle of the humerus).

Insertion:

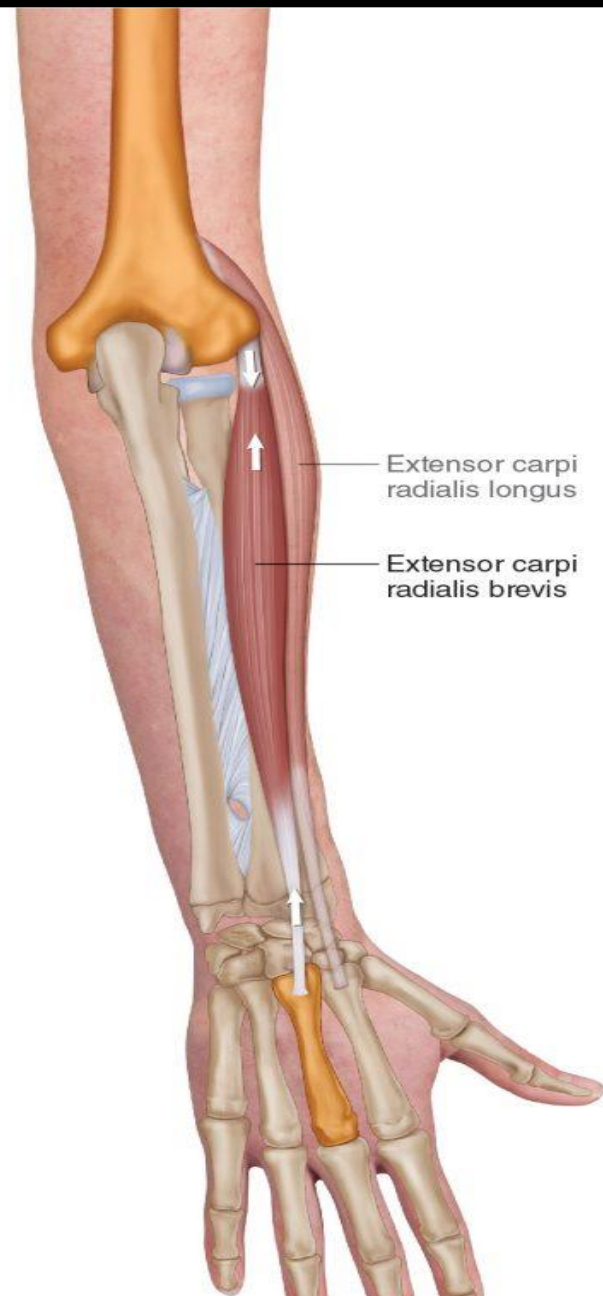
Posterior surface of base of 3rd metacarpal bone.

Nerve supply:

Posterior interosseous nerve.

Actions:

Extension and abduction of wrist.



4- Extensor digitorum

Origin: Common extensor origin.

Insertion:

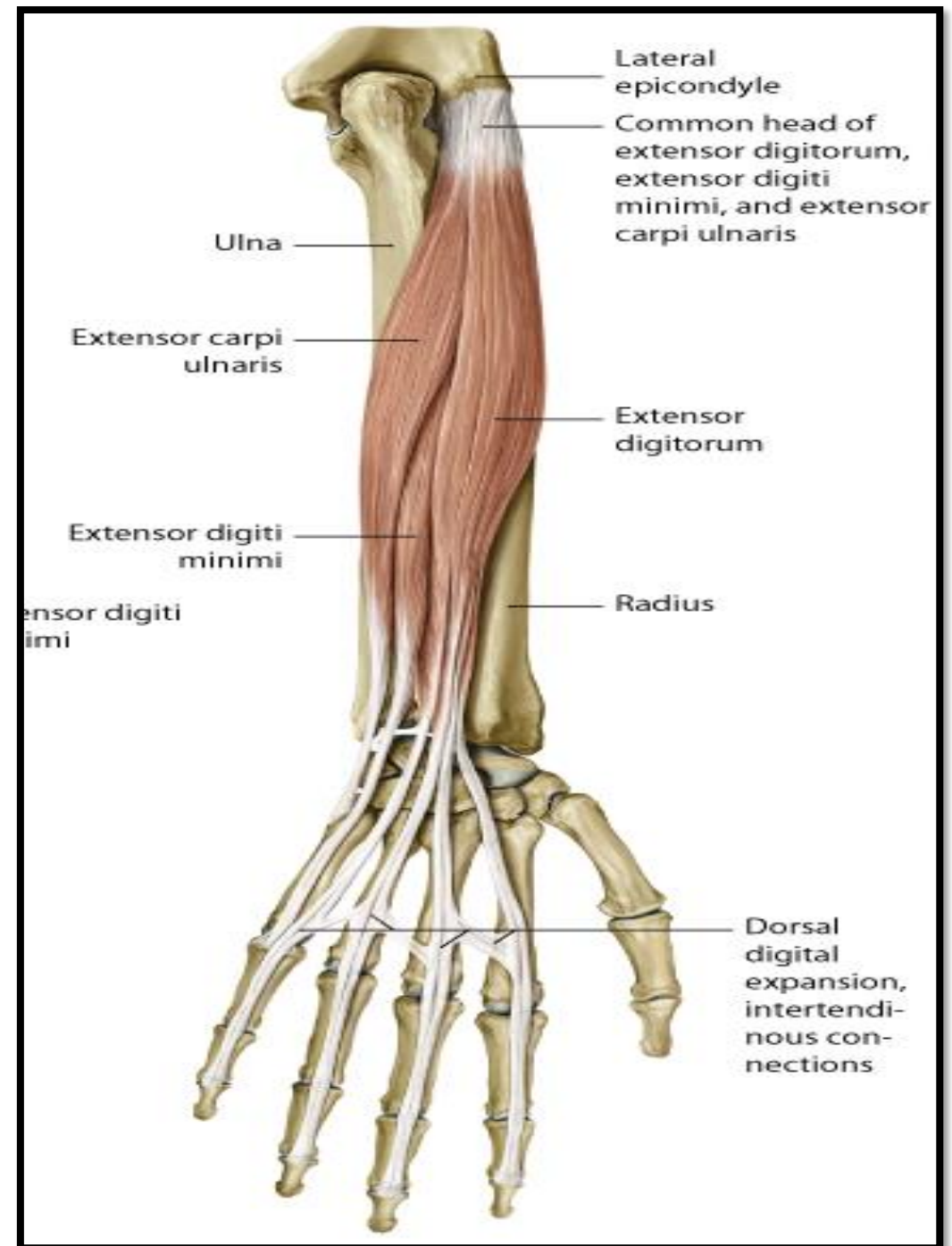
The tendons expands on the posterior surface of proximal phalanges of the medial 4 fingers forming the **extensor expansion**. Each extensor expansion splits into 3 slips: a central slip inserted into the base of the middle phalanx, and 2 lateral slips which are inserted into the base of distal phalanx.

Nerve supply: Posterior interosseous nerve.

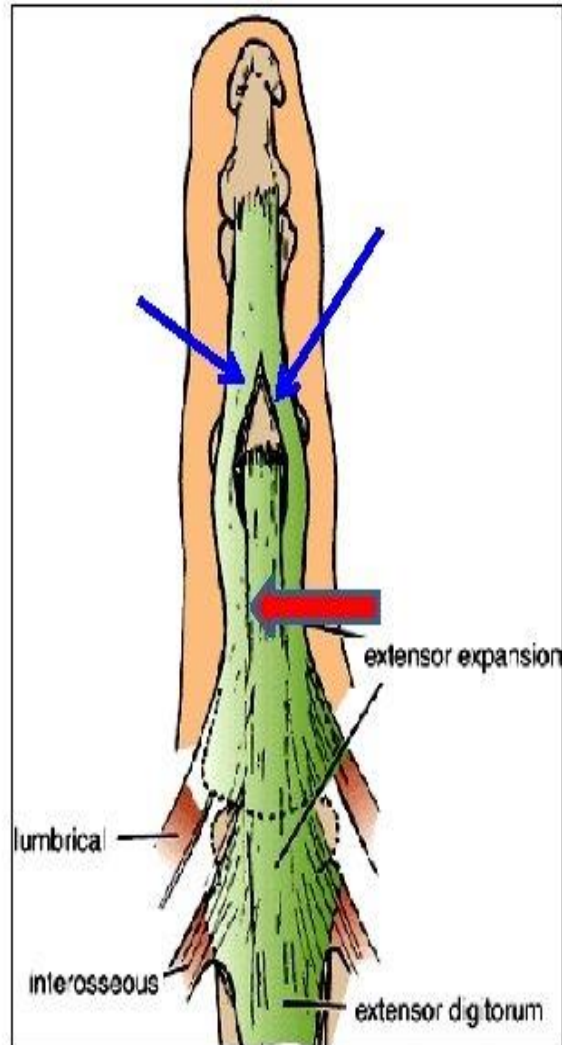
Actions:

-Extension of all joints of the medial 4 fingers.

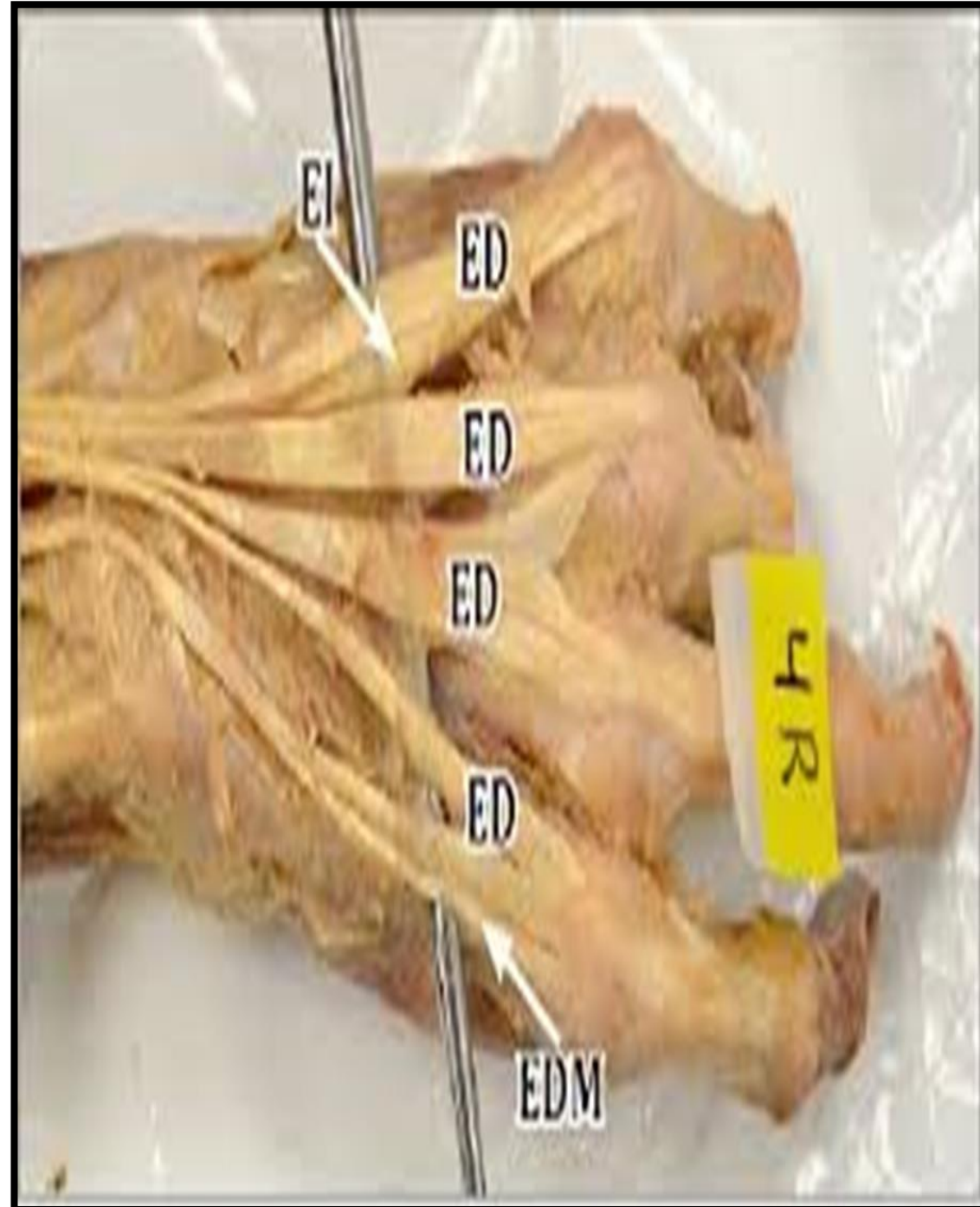
-It helps in extension of the wrist.



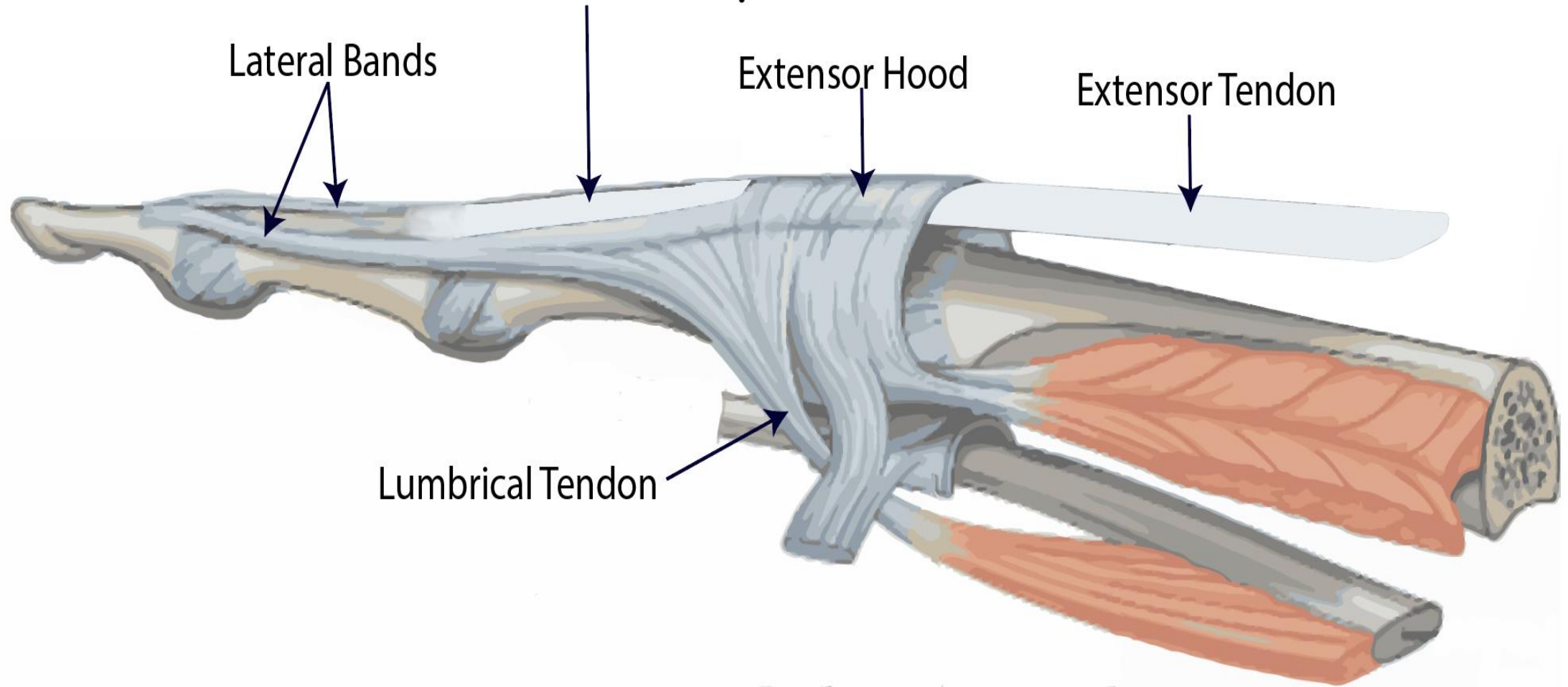
Extensor Expansion



- Formed from the expansion of extensor digitorum tendons
- At the *PIJ*, the expansion splits into **3 parts**
 - **One Central** inserted into the base of Middle phalanx.
 - **Two laterals** inserted into the base of the Distal phalanx.
- The Expansion Receives the insertions of:
 - **Corresponding Interosseous muscle (on each side).**
 - **Lumbrical muscle (on the lateral side).**



Central Slip



5- Extensor digiti minimi

Origin:

- **Common extensor origin.**

Insertion:

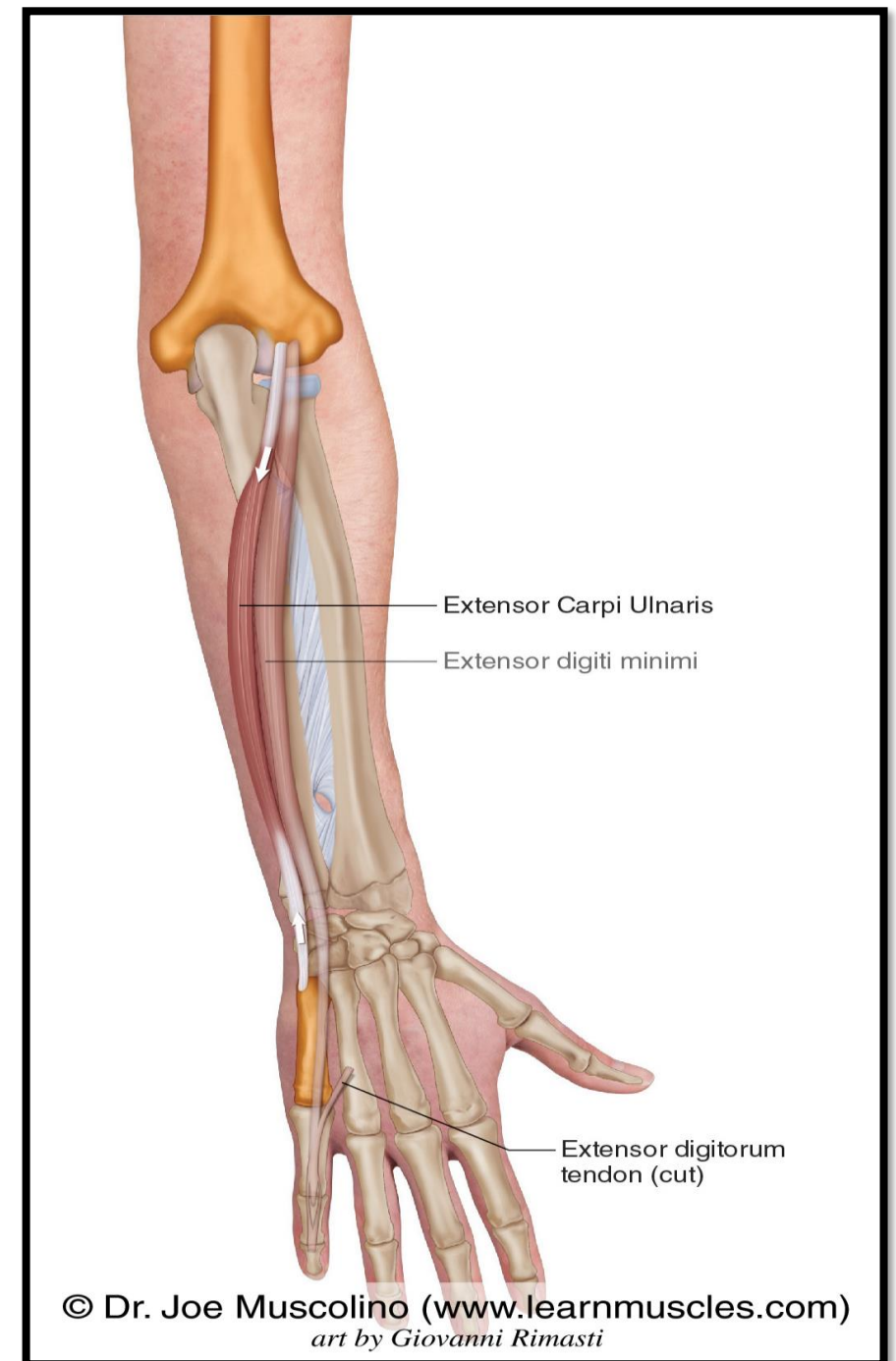
- **Extensor expansion of the little finger.**

Nerve supply:

- **Posterior interosseous nerve.**

Actions:

- **Extension of all joints of little finger**
- **Extension of wrist.**



6- Extensor carpi ulnaris

Origin:

**Common extensor origin.
Posterior border of ulna.**

Insertion:

**Posterior surface of the base
of 5th metacarpal bone.**

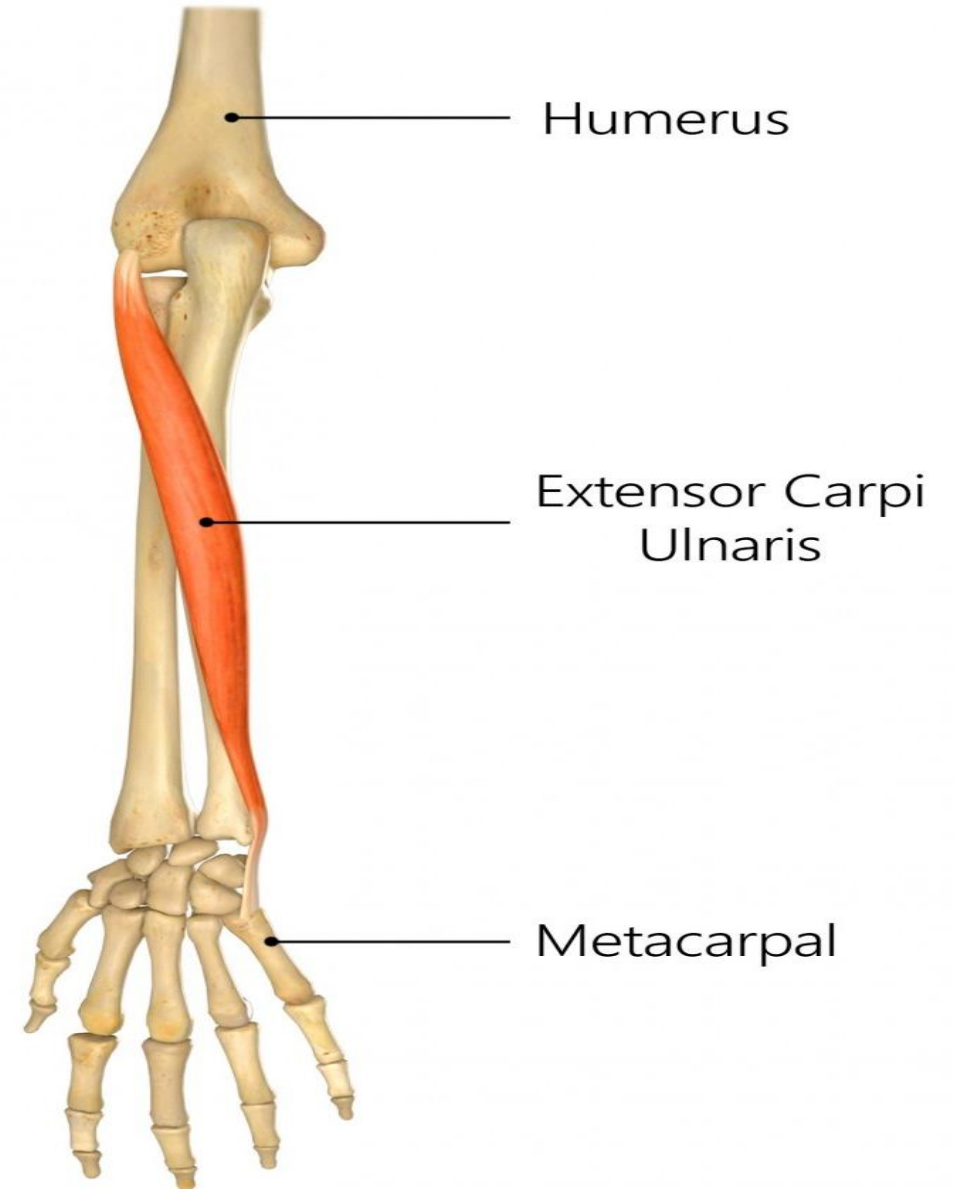
Nerve supply

Posterior interosseous nerve.

Actions:

**Extension and adduction of
the wrist.**

Extensor Carpi Ulnaris



7- Anconeus

Origin:

Posterior aspect of lateral epicondyle of humerus.

Insertion:

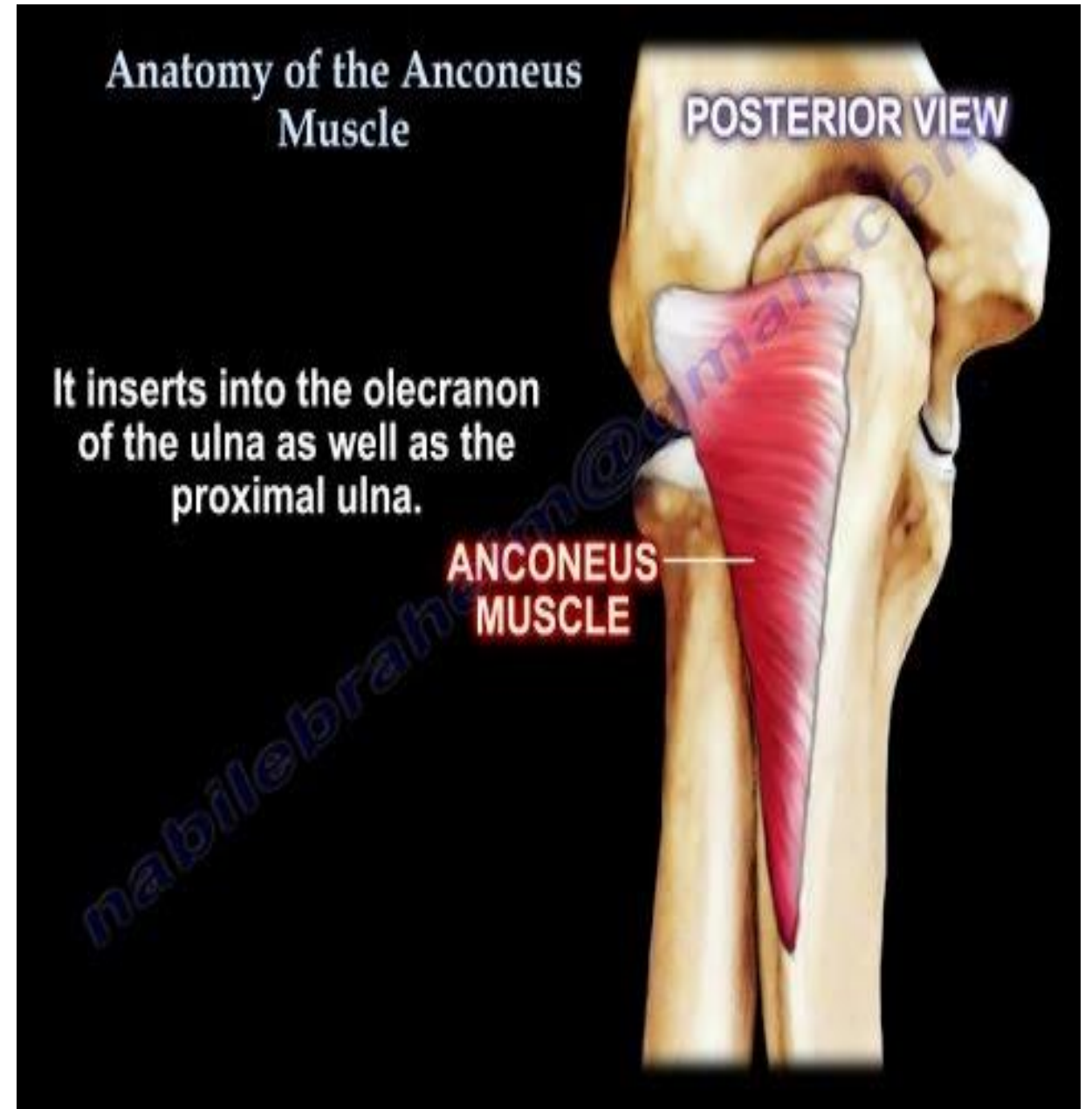
Lateral surface of olecranon process of ulna

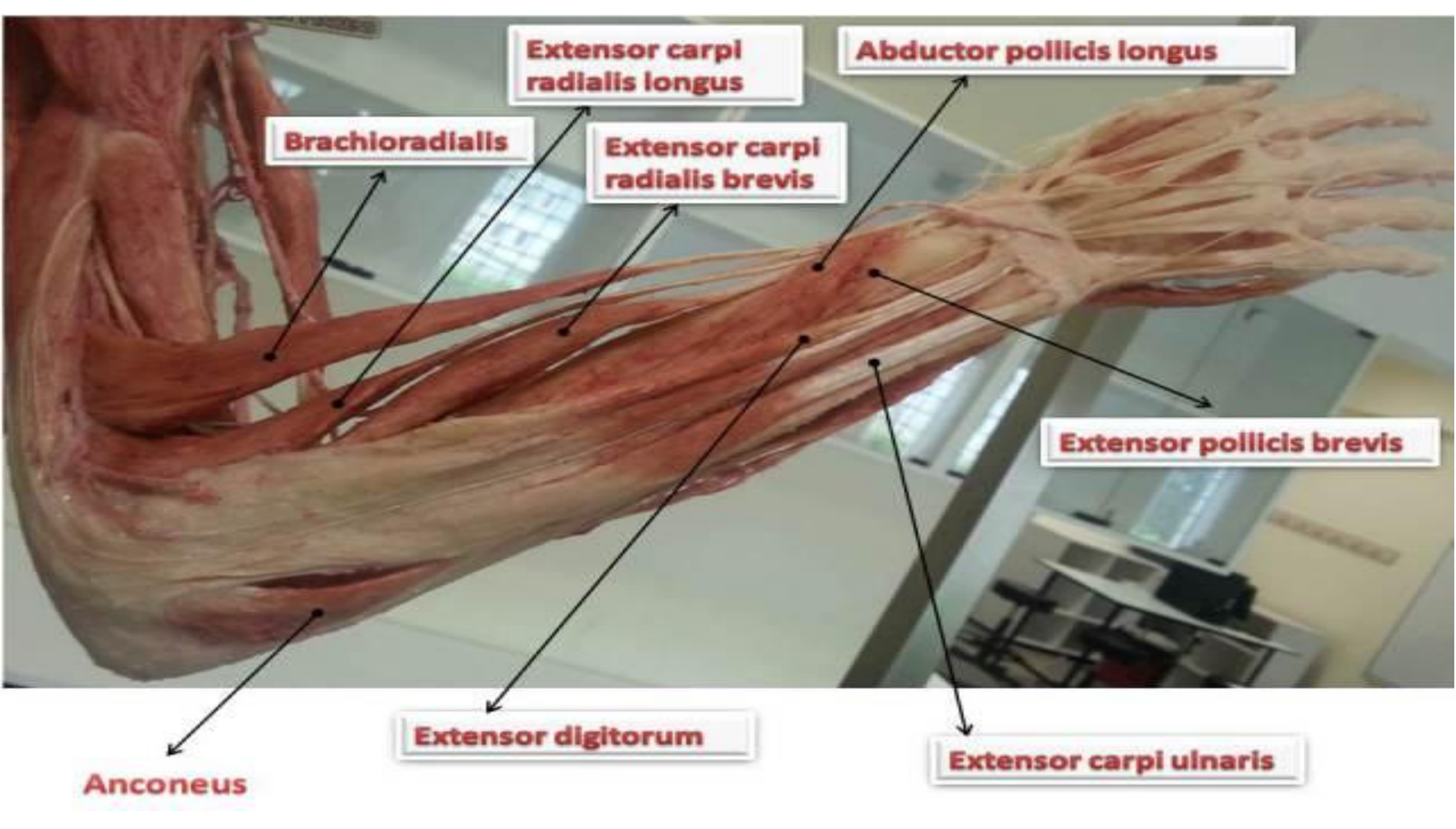
Nerve supply:

Radial nerve.

Action:

It helps in extension of elbow.





Extensor carpi radialis longus

Abductor pollicis longus

Brachioradialis

Extensor carpi radialis brevis

Extensor pollicis brevis

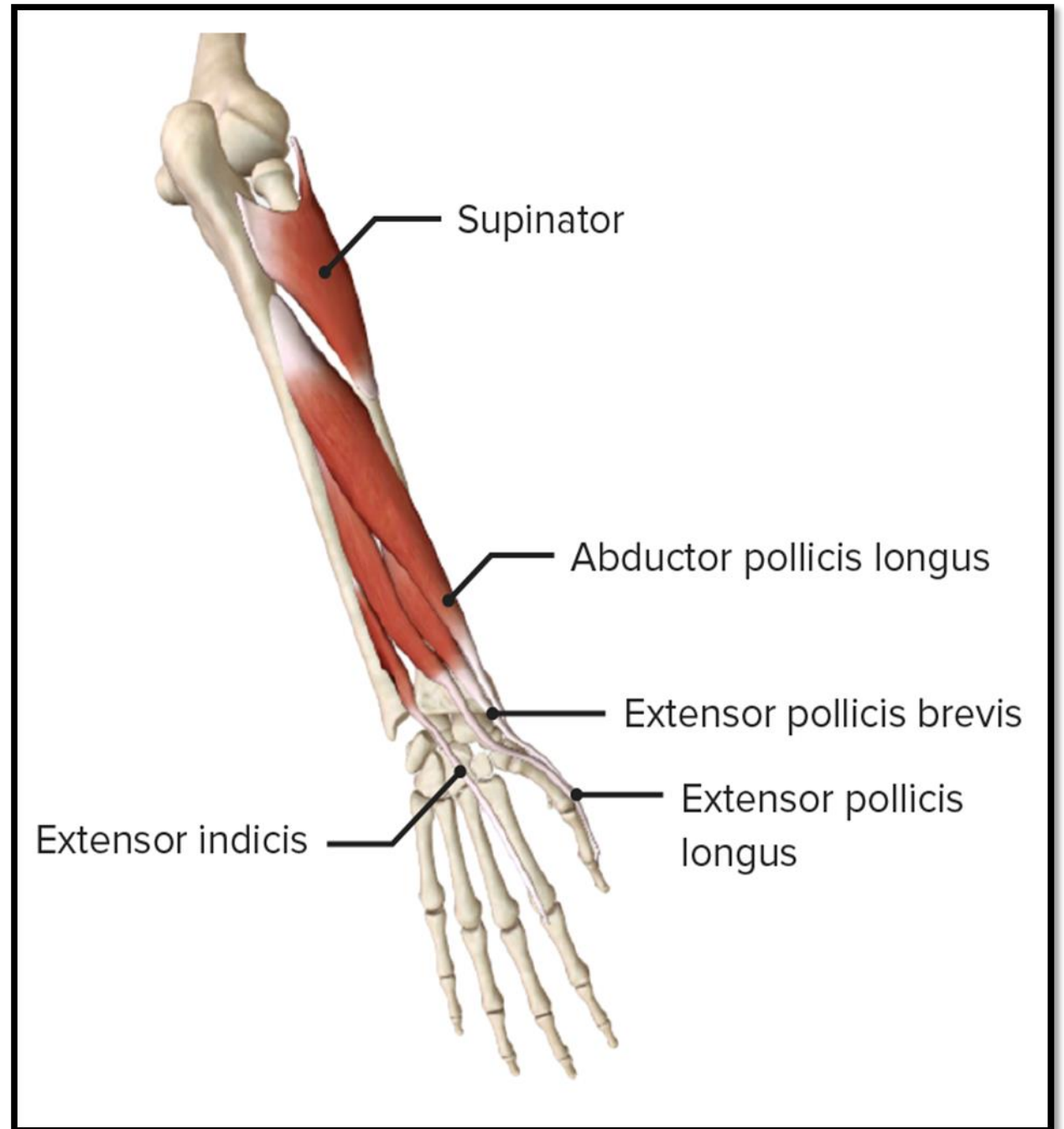
Anconeus

Extensor digitorum

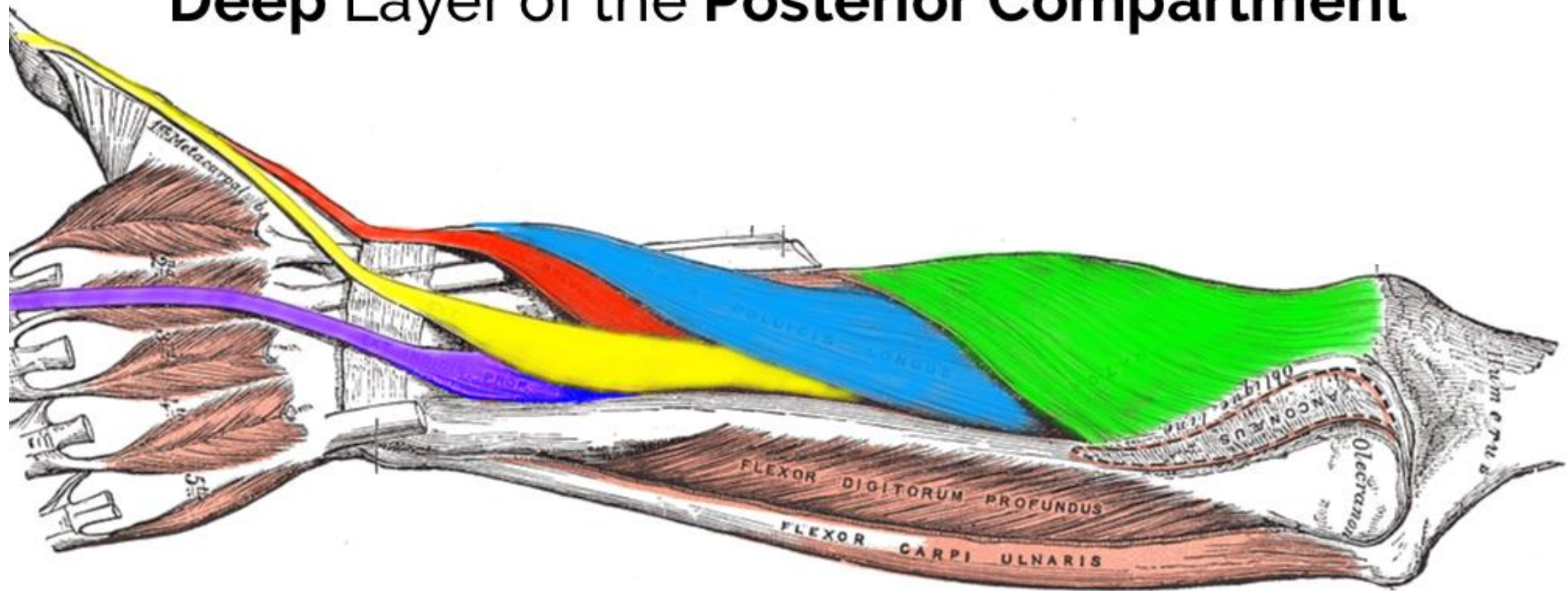
Extensor carpi ulnaris

Deep Group

- Supinator
- Abductor pollicis longus
- Extensor pollicis brevis
- Extensor pollicis Longus
- Extensor indicis
- Except for the supinator muscle, all these deep layer muscles originate from the posterior surfaces of the radius, ulna, and interosseous membrane and pass into the thumb and fingers.



Deep Layer of the Posterior Compartment



Supinator



Extensor pollicis brevis



Extensor indicis



Abductor pollicis longus



Extensor pollicis longus