## 3) Intrinsic muscles of the fingers:

## a) The 4 lumbricals:

- They originate from the tendons of flexor digitorum profundus muscle.
- They are inserted into the extensor expansion of the medial 4 fingers (one muscle for each finger).
- 1<sup>st</sup> and 2<sup>nd</sup>: unipennate.
- 3<sup>rd</sup> and 4<sup>th</sup>: bipennate.
- ✓ Actions: they act with interossei muscles to put the hand in the writing position (flexion of the metacarpophalangeal joints + extension of the interphalangeal joint.

Extension of interphalangea



Lumbricals

Flexor digitorum

profundus

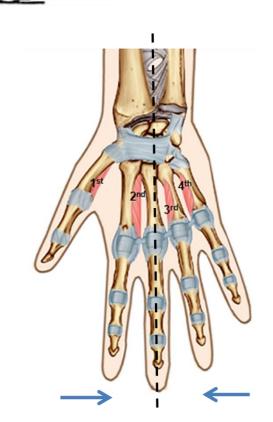
The writing position

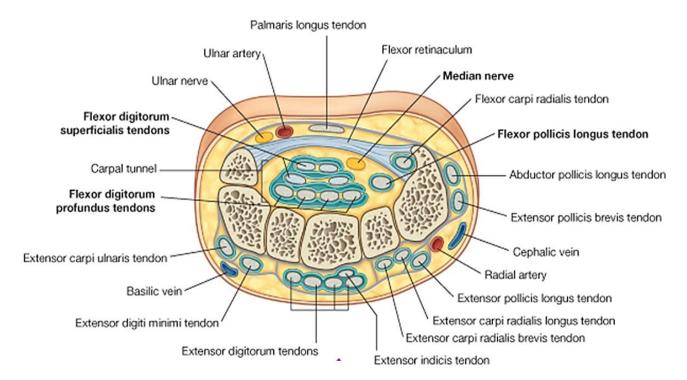
Flexion of

## b) The 4 palmar interossei:

- They are unipennate muscles.
- One muscle for each finger EXCEPT middle finger, which has no palmar interossei.
- ✓ <u>Actions:</u> they <u>AD</u>duct the fingers (<u>PAD</u>).
- ✓ Don't forget writing position.

N.B: the axis of the hand is the middle finger, so adduction or abduction of fingers is according to the movement toward or away from the middle finger.





## 2) The anatomical snuff box:

- Definition:
- It is the depression on the radial side of the wrist which appears on full extension of thumb.
- Boundaries:
- extensor retinaculum (tendons of both abductor pollicis longus and extensor pollicis brevis muscles).
- Medially: 3rd compartment of the extensor retinaculum (tendon of extensor pollicis longus muscle).
- Floor: formed by 4 bones, styloid process of radius, scaphoid, trapezium, and base of the 1st metacarpal bone (from above downwards).
- Contents:
- Deep close to the floor: radial artery.
- Superficial close to the roof: superficial branches of radial nerve, and cephalic vein.

