





flexor digitorum superficialis

flexor carpi ulnaris (belly)

radial a.

ulnar a.

flexor carpi radialis (tendon)

palmaris longus (tendon)

brachioradialis (tendon)

variant slip of flexor carpi ulnaris (tendon) to flexor retinaculum

ulnar n.

recurrent branch of median n. to thenar muscles

opponens digiti minimi

abductor digiti minimi

flexor digiti minimi

4th lumbrical

3rd lumbrical

flexor digitorum superficialis (tendon to middle finger)

2nd lumbrical

1st lumbrical

adductor pollicis

flexor pollicis brevis

abductor pollicis brevis

ulnar a.

opponens pollicis

# OPPONENS POLLICIS

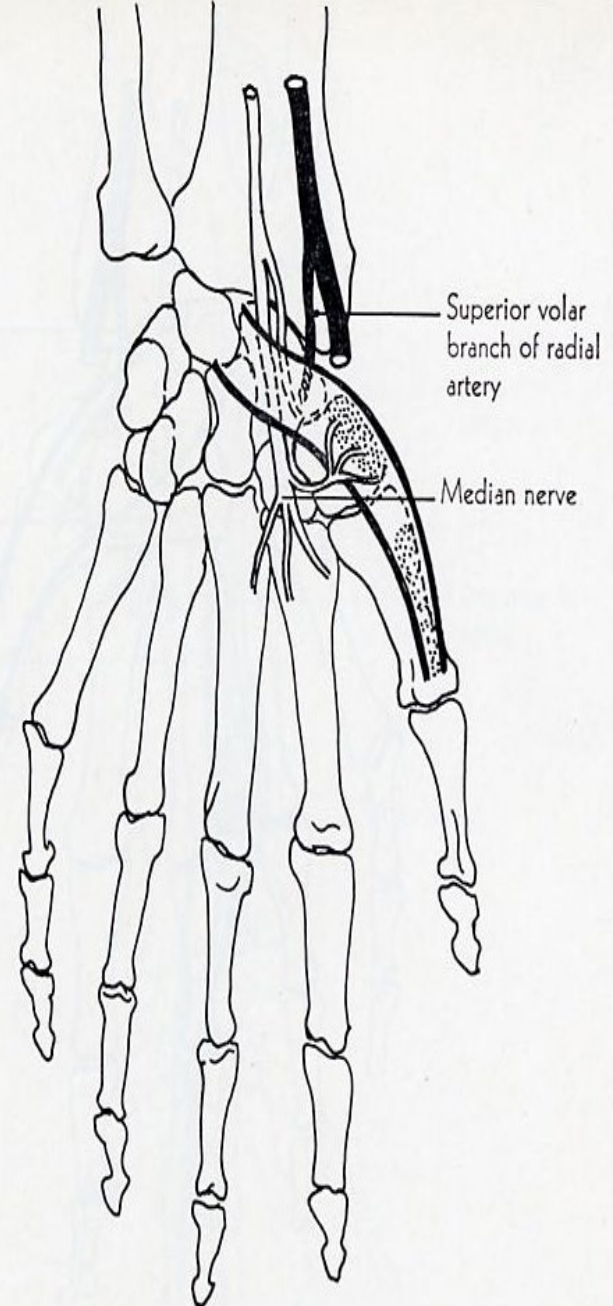
**ORIGIN:** transverse carpal ligament, ridge on trapezium.

**INSERTION:** anterior surface, radial side of 1<sup>st</sup> metacarpal bone.

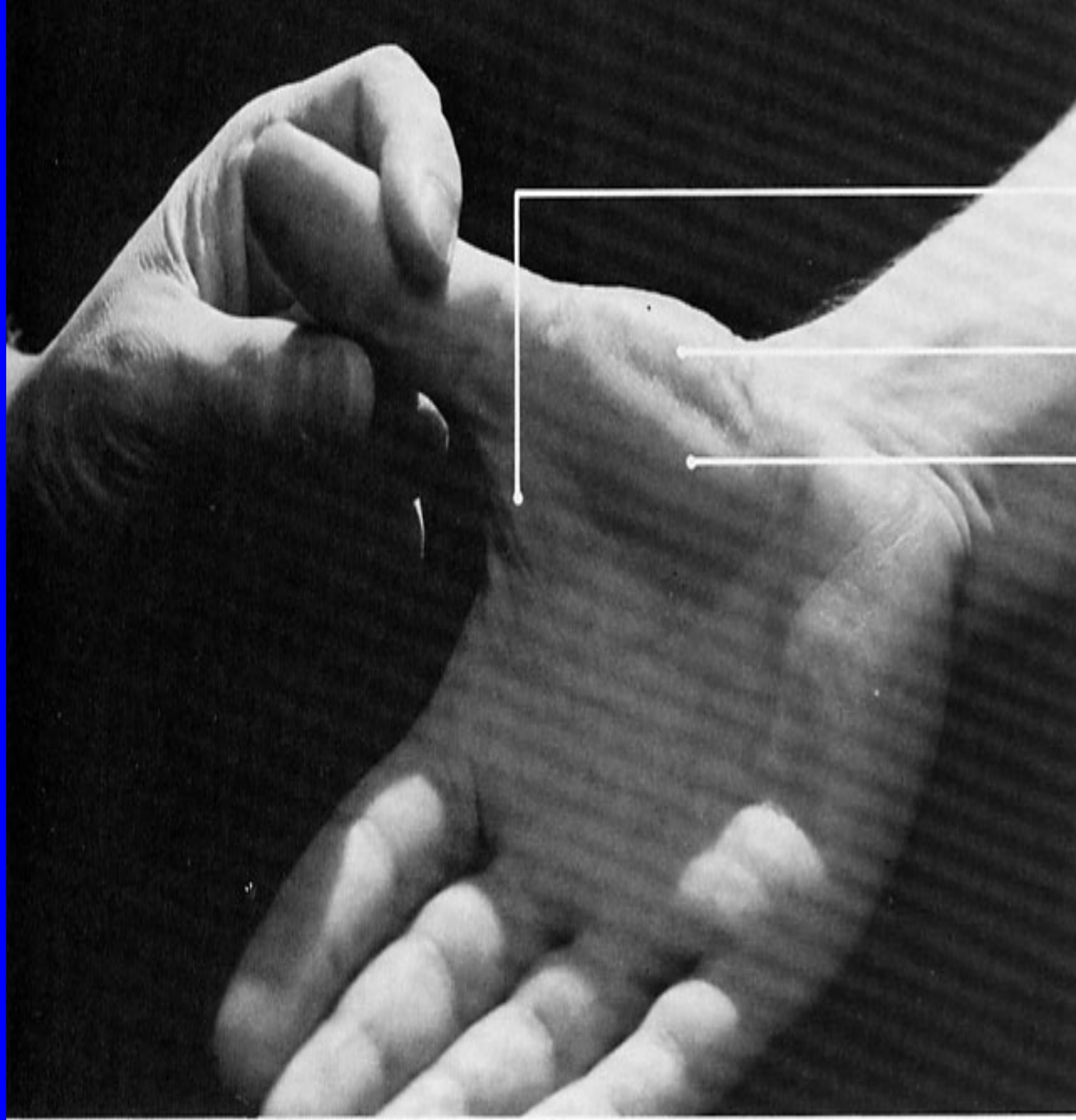
**ACTION:** draws 1<sup>st</sup> mcp bone forwards and medially, opposing thumb to each of the other digits.

**NERVE:** median nerve.

**ROOT:** C8, T1 mainly C8.







skin fold of first  
web space overlying  
adductor pollicis

**abductor pollicis brevis**

flexor pollicis brevis



- palmaris longus
- brachioradialis
- flexor carpi radialis (belly)
- flexor carpi ulnaris (belly)
- flexor digitorum superficialis (belly)
  
- lateralmost portion of extensor retinaculum
- flexor carpi radialis (tendon)
- median n.
- extensor carpi radialis longus (tendon)
- extensor carpi radialis brevis (part of belly)
- brachioradialis (tendon)
- flexor digitorum superficialis (belly)
- flexor digitorum superficialis (tendons)
- palmaris longus (tendon)
- flexor carpi ulnaris (tendon)
- variant slip of flexor carpi ulnaris (tendon) to flexor retinaculum
  
- pisiform
- ulnar a.
- deep branch of ulnar n. } in Guyon's ca
  
- abductor digiti minimi
- flexor digiti minimi
- opponens digiti minimi
- flexor pollicis brevis
- palmar aponeurosis
- cutaneous branch of median n. to thumb
- abductor pollicis brevis
- opponens pollicis

# ABDUCTOR POLLICIS BREVIS

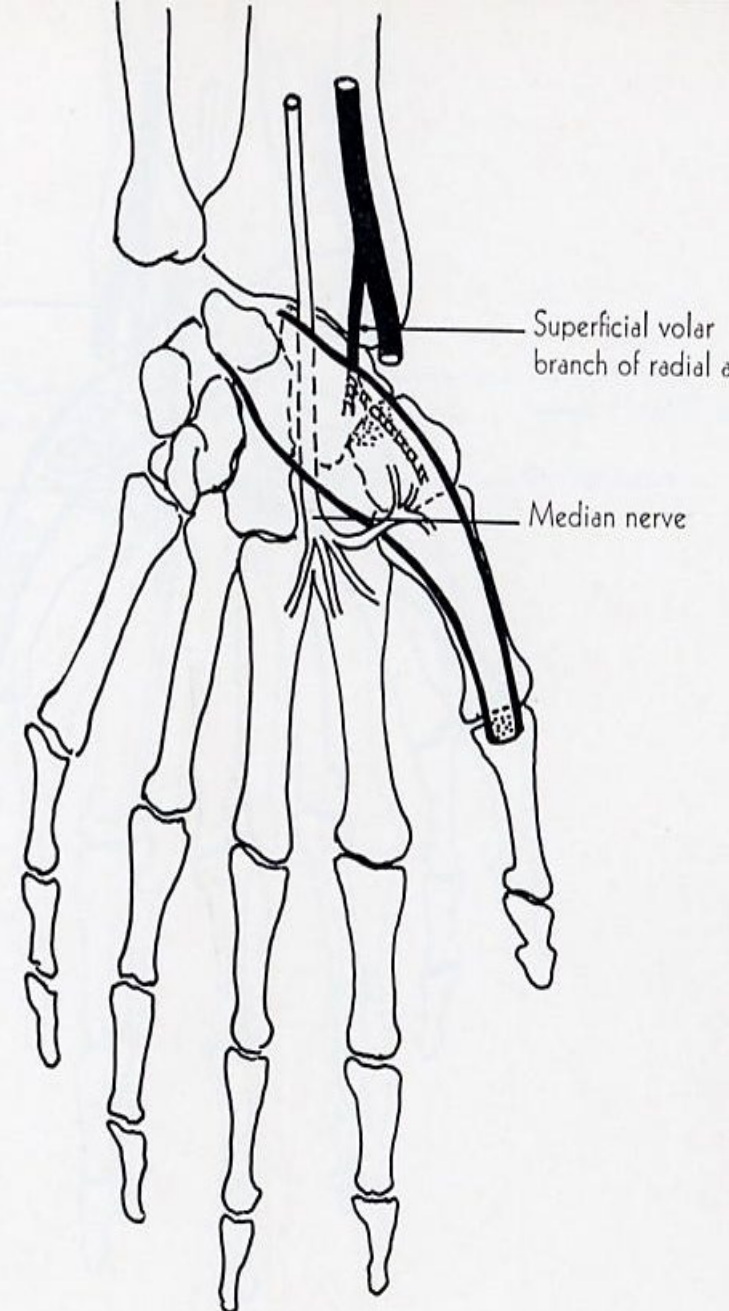
**ORIGIN:** transverse carpal ligament, scaphoid tuberosity and ridge on trapezium bones.

**INSERTION:** radial side of base of proximal phalanx of thumb.

**ACTION:** abducts thumb, draws thumb forward at right angle to palm.

**NERVE:** median.

**ROOT:** C8, T1 mainly C8







skin fold of first  
web space overlying  
adductor pollicis

abductor pollicis brevis

**flexor pollicis brevis**

hypothenar muscles





## **FLEXOR POLLICIS BREVIS**

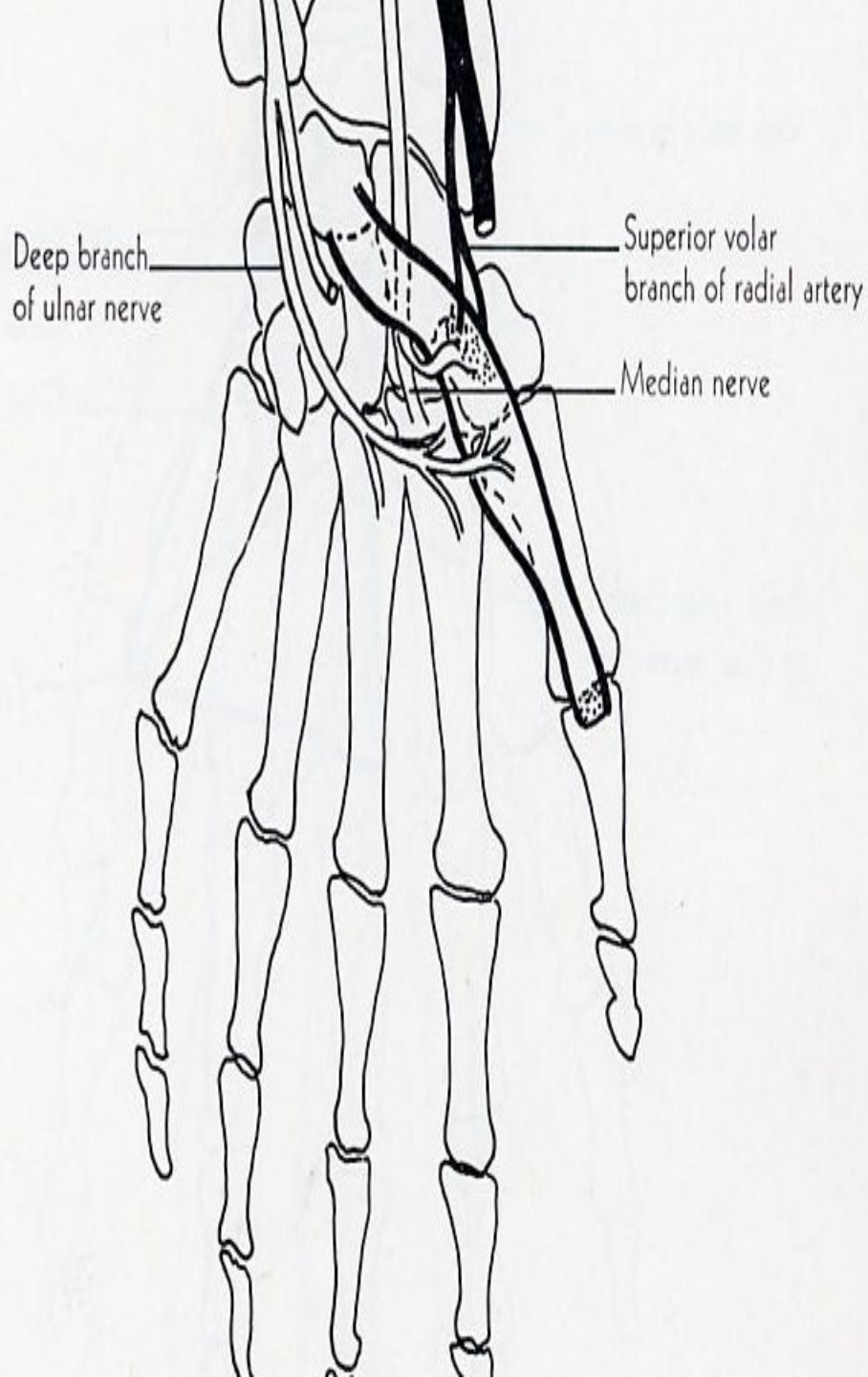
**ORIGIN:** transverse carpal ligament, ridge on trapezium.

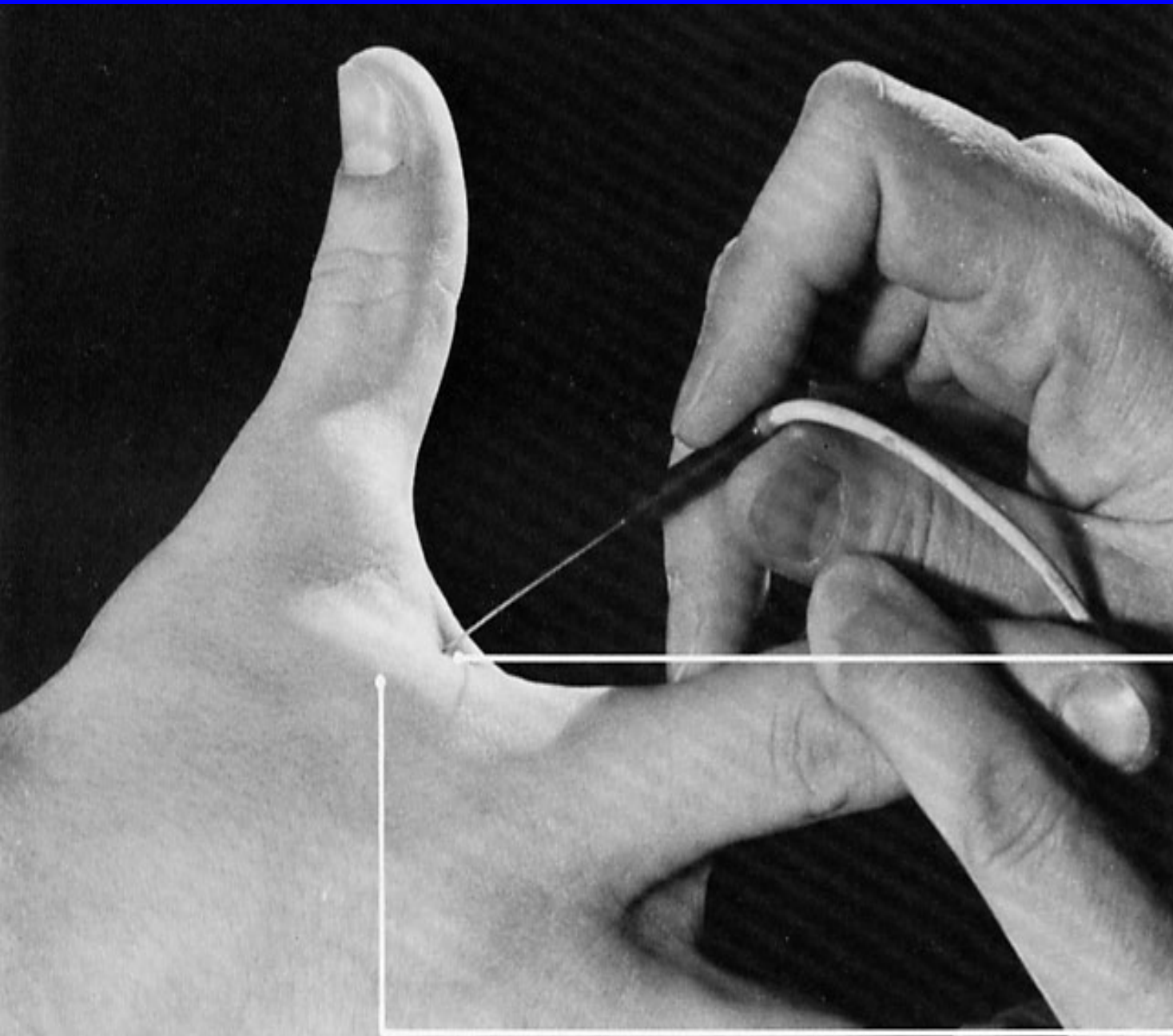
**INSERTION:** base of proximal phalanx of thumb.

**ACTION:** flexes proximal phalanx of thumb.

**NERVE:** superficial head by the median nerve and deep head by the ulnar nerve.

**ROOT:** C8, T1 mainly C8.





pin insertion site for  
**adductor pollicis** through  
skin fold of first web space

first dorsal interosseus





# ADDUCTOR POLLICIS

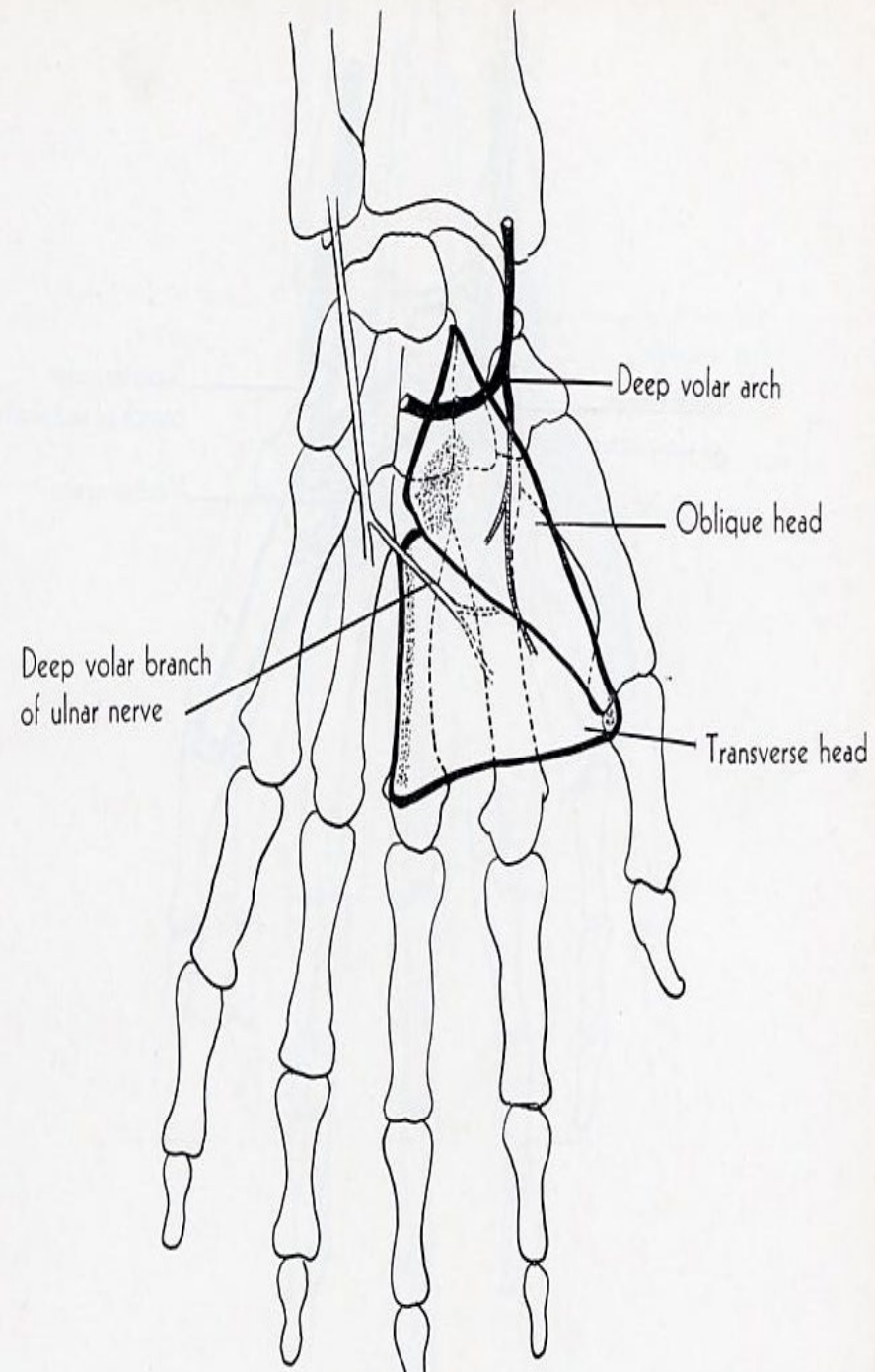
**ORIGIN:** oblique head from capitate, bases of 2<sup>nd</sup> and 3<sup>rd</sup> metacarpal bone, intercarpal ligaments; transverse head from the volar surface of 3<sup>rd</sup> metacarpal bone.

**INSERTION:** ulnar side of proximal phalanx of thumb.

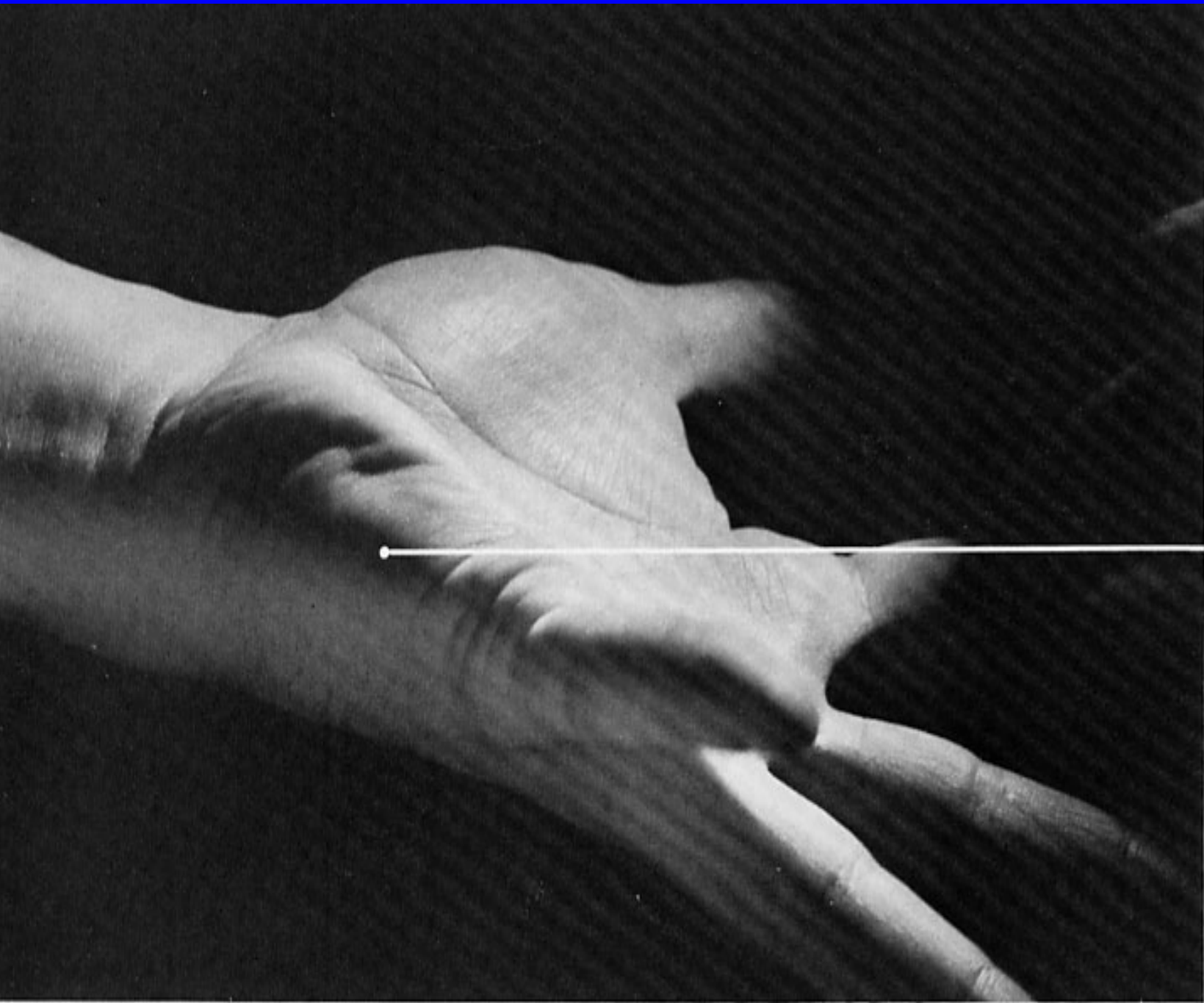
**ACTION:** adducts thumb, aids in opposition.

**NERVE:** deep branch of ulnar.

**ROOT:** C8, T1 mainly T1







**abductor  
digiti minimi**



flexor digitorum superficialis

flexor carpi ulnaris (belly)

radial a.

ulnar a.

flexor carpi radialis (tendon)

palmaris longus (tendon)

brachioradialis (tendon)

variant slip of flexor carpi ulnaris (tendon) to flexor retinaculum

ulnar n.

recurrent branch of median n. to thenar muscles

opponens digiti minimi

abductor digiti minimi

flexor digiti minimi

4th lumbrical

3rd lumbrical

flexor digitorum superficialis (tendon to middle finger)

2nd lumbrical

1st lumbrical

adductor pollicis

flexor pollicis brevis

abductor pollicis brevis

ulnar a.

opponens pollicis



## **ABDUCTOR DIGITI MINIMI**

**ORIGIN:** pisiform bone, tendon of flexor carpi ulnaris.

**INSERTION:** medial side of base of proximal phalanx of fifth digit and aponeurosis of extensor digiti minimi.

**ACTION:** abducts 5th digit from 4th digit.

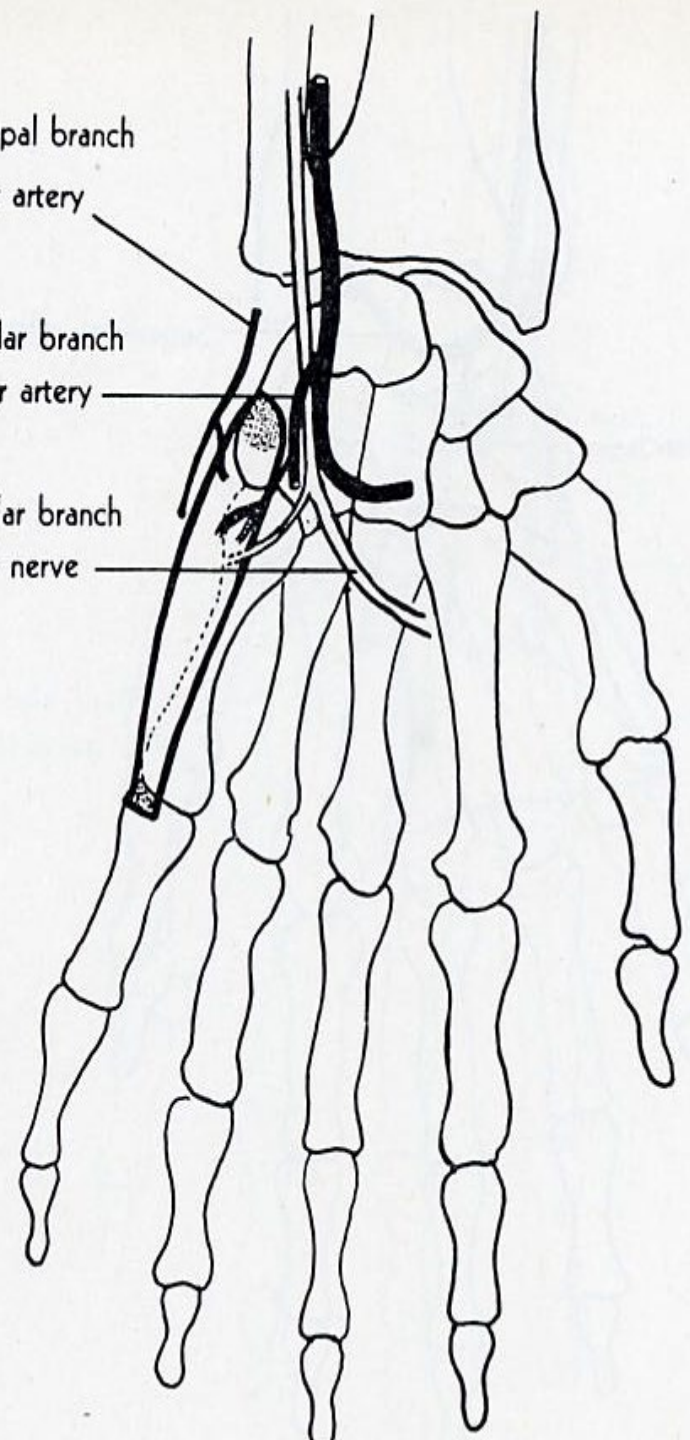
**NERVE:** deep branch of ulnar

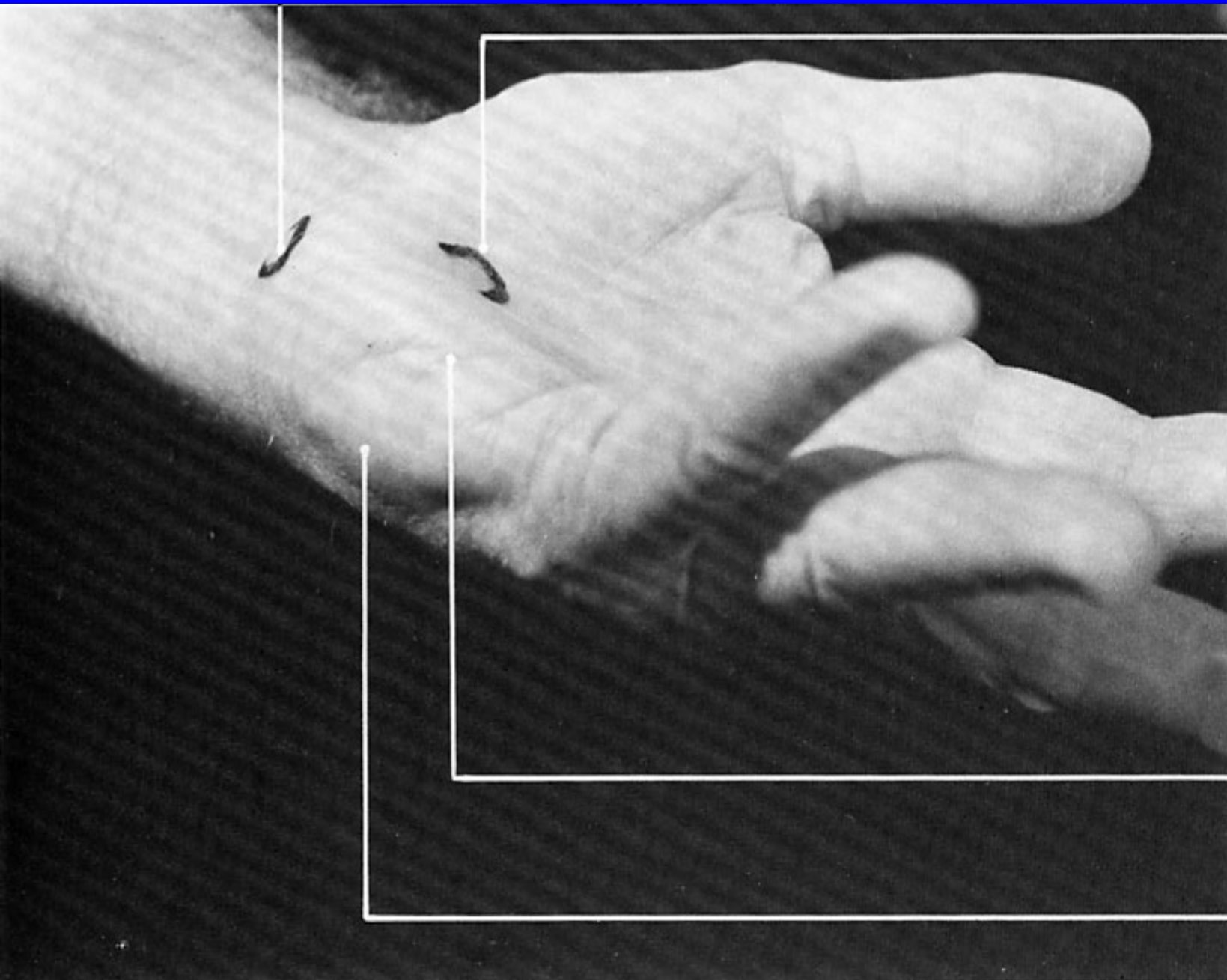
**ROOT:** C8, T1 mainly T1.

Dorsal carpal branch  
of ulnar artery

Deep volar branch  
of ulnar artery

Deep volar branch  
of ulnar nerve



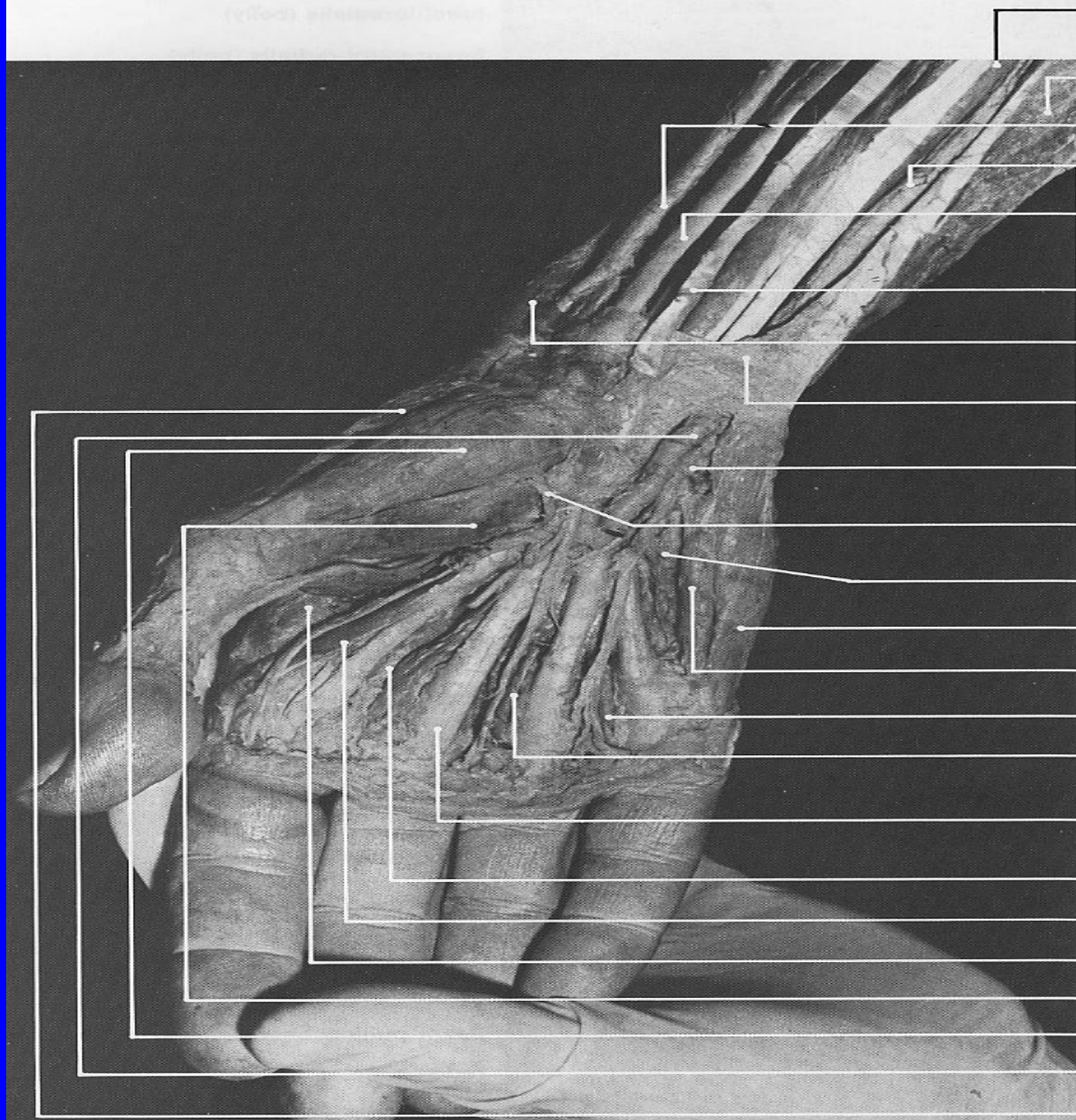


hook of ham

**flexor digiti  
minimi brevis**

abductor dig  
minimi





flexor digitorum superficialis

flexor carpi ulnaris (belly)

radial a.

ulnar a.

flexor carpi radialis (tendon)

palmaris longus (tendon)

brachioradialis (tendon)

variant slip of flexor carpi ulnaris (tendon) to flexor retinaculum

ulnar n.

recurrent branch of median n. to thenar muscles

opponens digiti minimi

abductor digiti minimi

flexor digiti minimi

4th lumbrical

3rd lumbrical

flexor digitorum superficialis (tendon to middle finger)

2nd lumbrical

1st lumbrical

adductor pollicis

flexor pollicis brevis

abductor pollicis brevis

ulnar a.

opponens pollicis

# FLEXOR DIGITI MINIMI

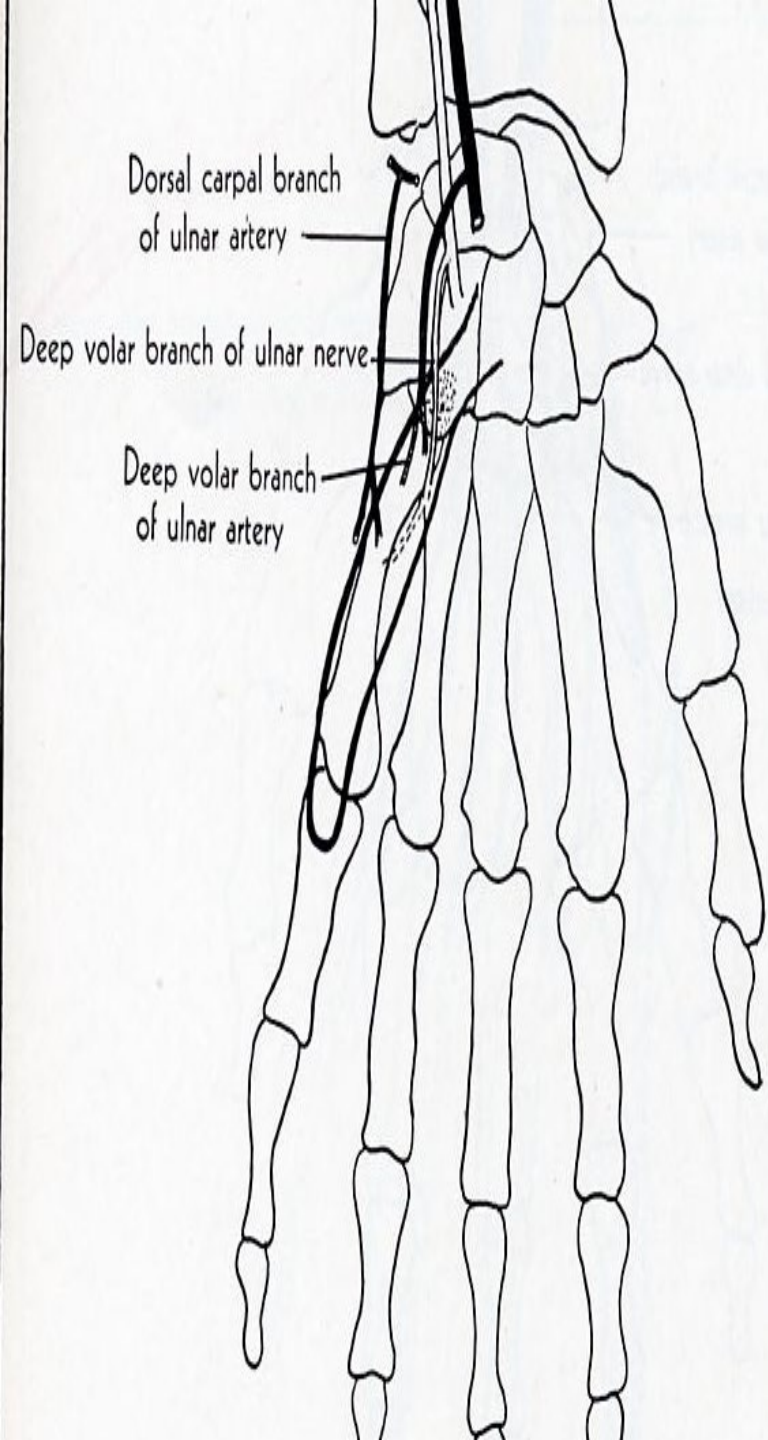
**ORIGIN:** transverse carpal ligament, hook of hamate.

**INSERTION:** ulnar side of base of proximal phalanx of 5<sup>th</sup> digit.

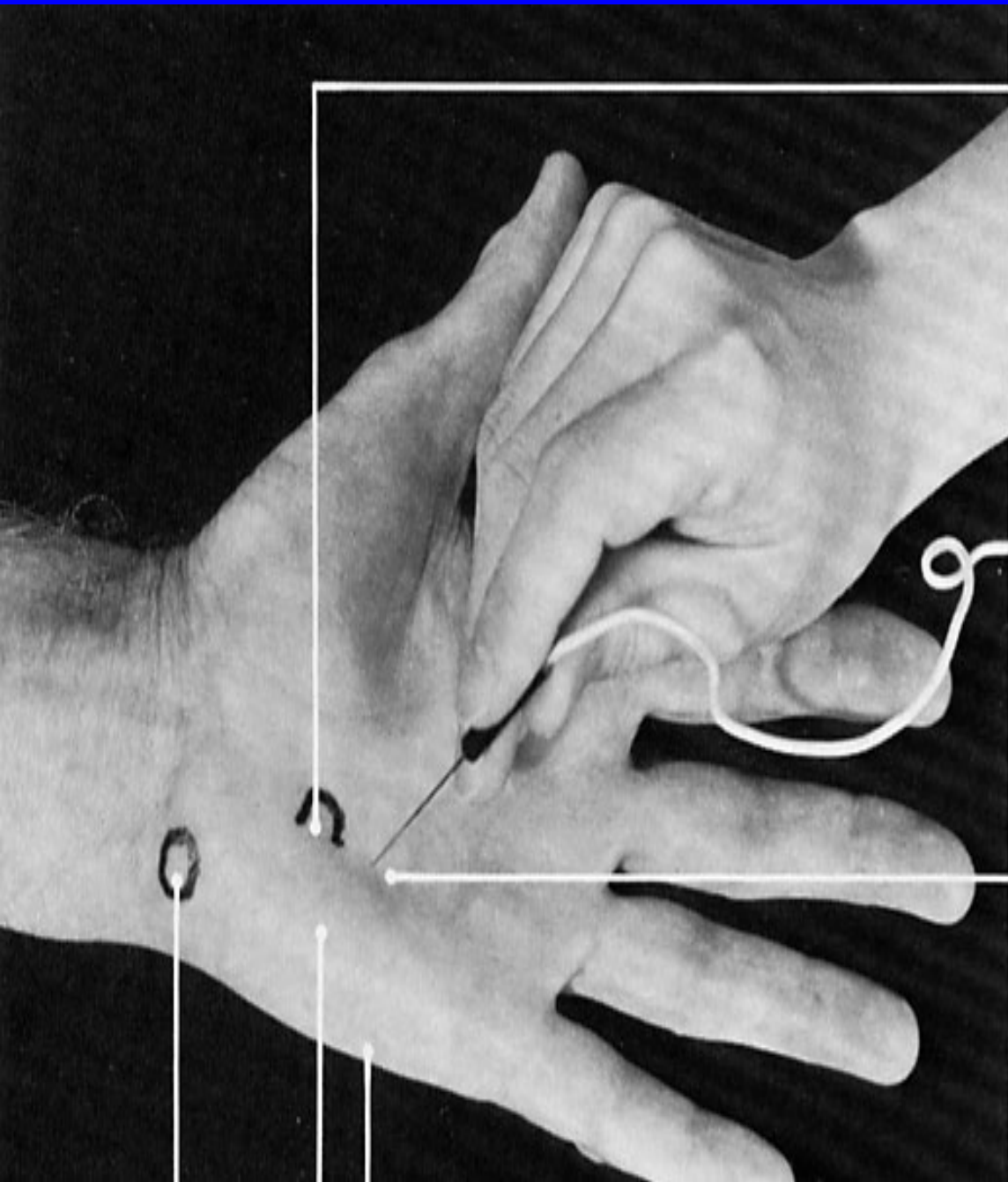
**ACTION:** flexes proximal phalanx of 5th digit.

**NERVE:** deep branch of ulnar

**ROOT:** C8, T1 mainly T1.







hook of hamate

pin insertion site for **opponens digiti minimi**



flexor digitorum superficialis

flexor carpi ulnaris (belly)

radial a.

ulnar a.

flexor carpi radialis (tendon)

palmaris longus (tendon)

brachioradialis (tendon)

variant slip of flexor carpi ulnaris (tendon) to flexor retinaculum

ulnar n.

recurrent branch of median n. to thenar muscles

opponens digiti minimi

abductor digiti minimi

flexor digiti minimi

4th lumbrical

3rd lumbrical

flexor digitorum superficialis (tendon to middle finger)

2nd lumbrical

1st lumbrical

adductor pollicis

flexor pollicis brevis

abductor pollicis brevis

ulnar a.

opponens pollicis



# OPPONENS DIGITI MINIMI

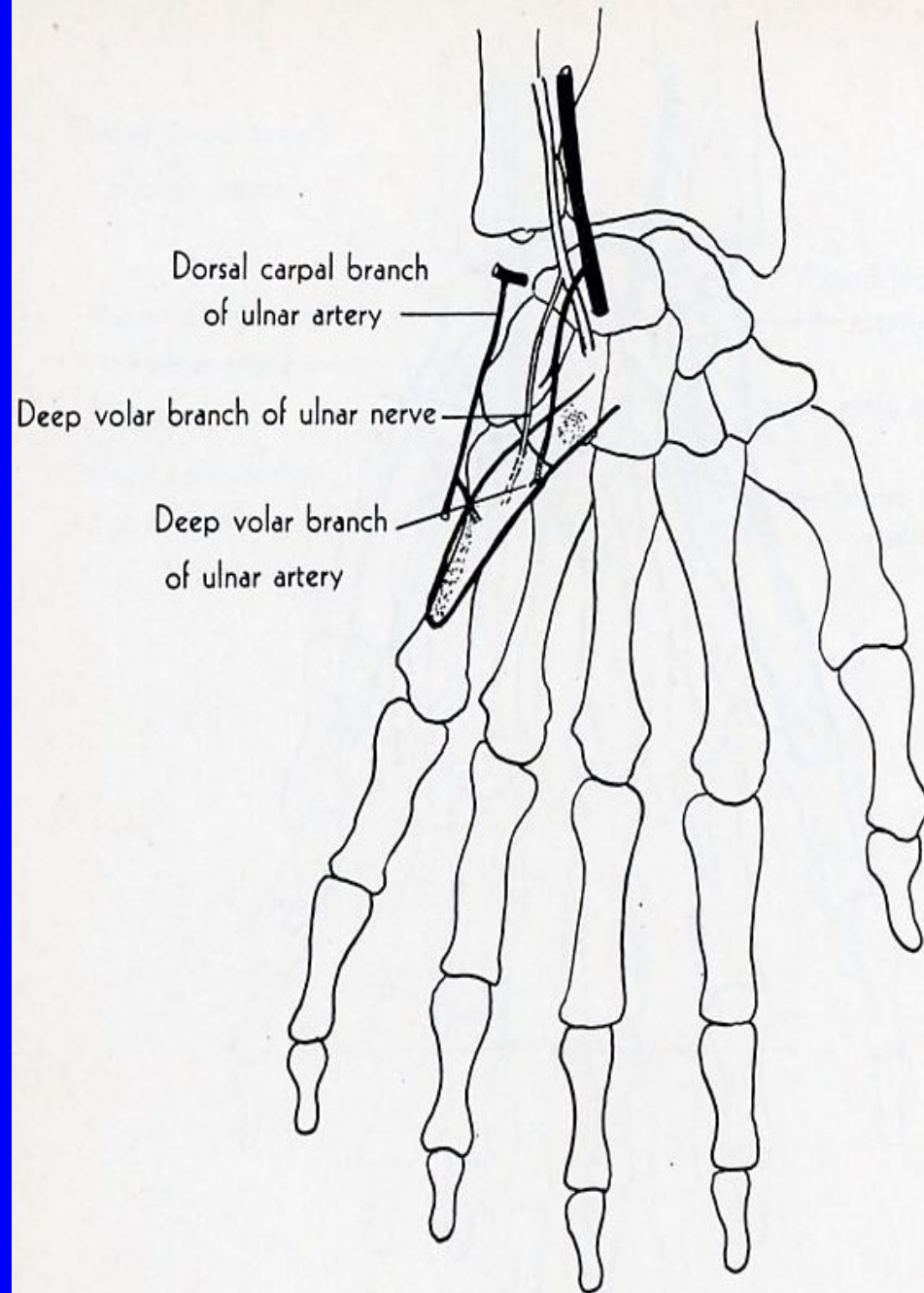
**ORIGIN:** transverse carpal ligament, hook of hamate.

**INSERTION:** ulnar margin of 5<sup>th</sup> mcp bone.

**ACTION:** draws 5<sup>th</sup> mcp bone forward, deepens hollow of hand.

**NERVE:** deep branch of ulnar

**ROOT:** C8, T1 mainly T1.

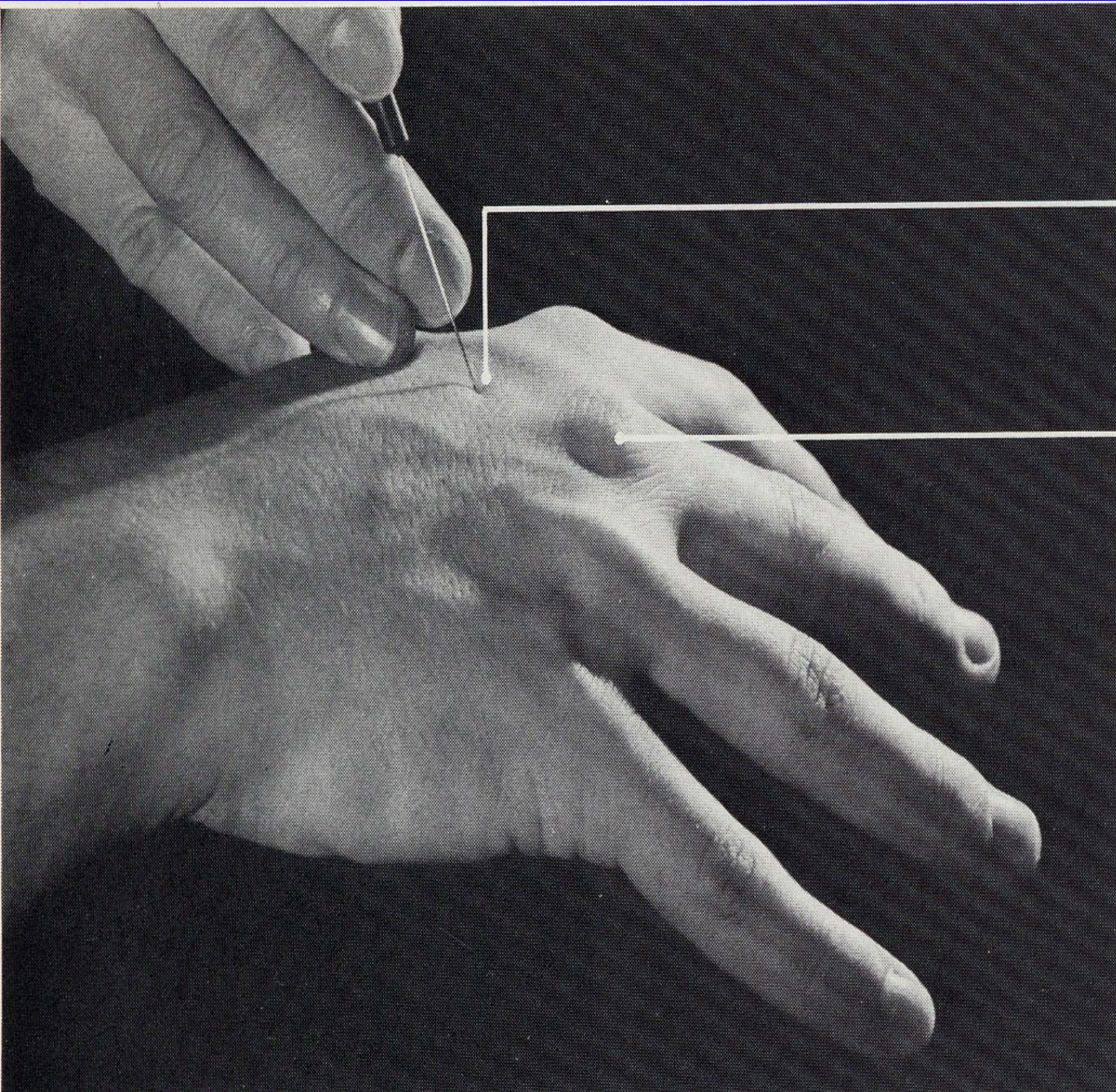






**first dorsal  
interosseus**

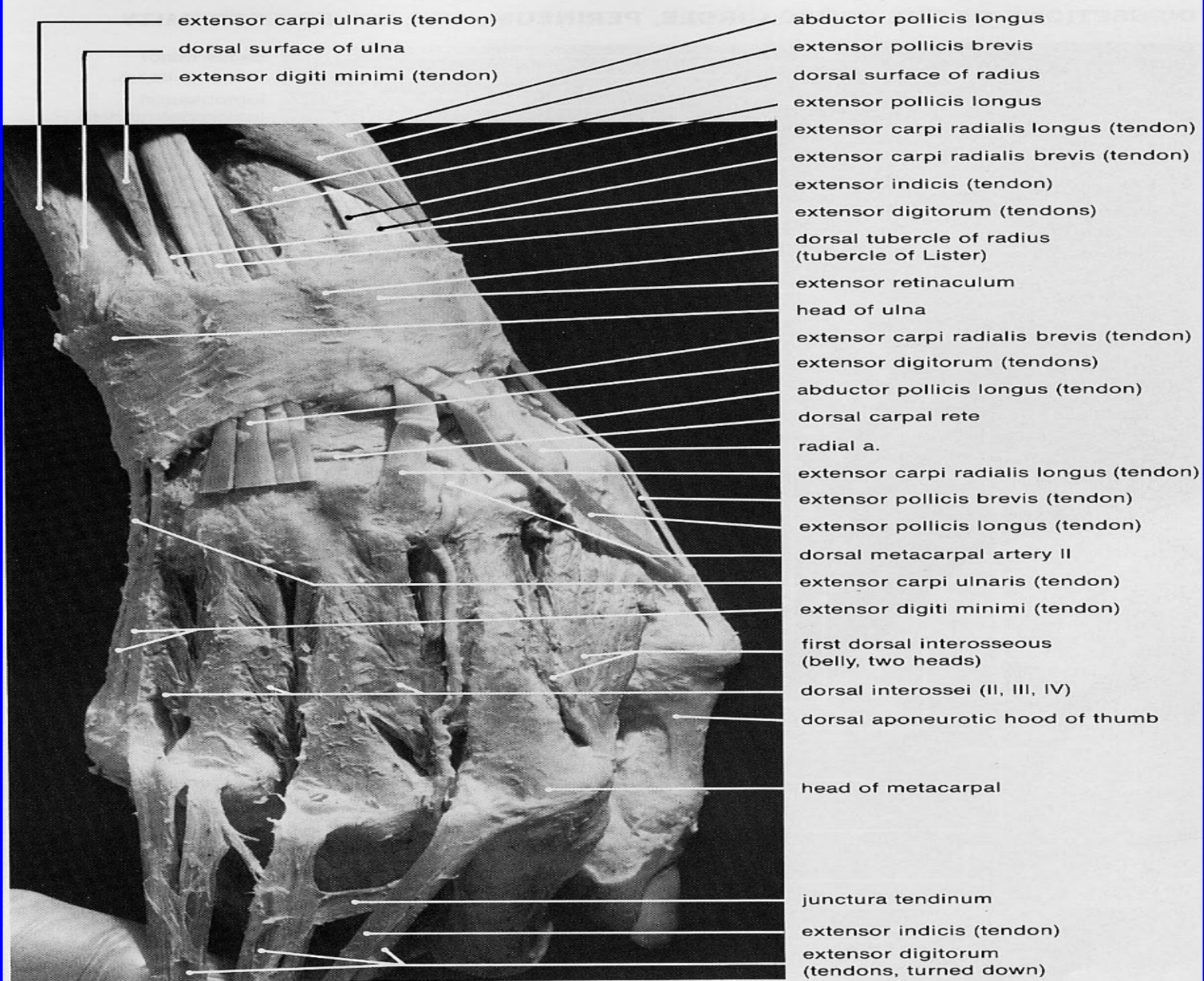




pin insertion site for  
**dorsal interosseous** at second  
intermetacarpal space

head of third metacarpal





extensor carpi ulnaris (tendon)  
dorsal surface of ulna  
extensor digiti minimi (tendon)

abductor pollicis longus  
extensor pollicis brevis  
dorsal surface of radius  
extensor pollicis longus  
extensor carpi radialis longus (tendon)  
extensor carpi radialis brevis (tendon)  
extensor indicis (tendon)  
extensor digitorum (tendons)  
dorsal tubercle of radius  
(tubercle of Lister)  
extensor retinaculum  
head of ulna  
extensor carpi radialis brevis (tendon)  
extensor digitorum (tendons)  
abductor pollicis longus (tendon)  
dorsal carpal rete  
radial a.  
extensor carpi radialis longus (tendon)  
extensor pollicis brevis (tendon)  
extensor pollicis longus (tendon)  
dorsal metacarpal artery II  
extensor carpi ulnaris (tendon)  
extensor digiti minimi (tendon)  
first dorsal interosseous  
(belly, two heads)  
dorsal interossei (II, III, IV)  
dorsal aponeurotic hood of thumb

head of metacarpal

junctura tendinum  
extensor indicis (tendon)  
extensor digitorum  
(tendons, turned down)



# DORSAL INTEROSSEI

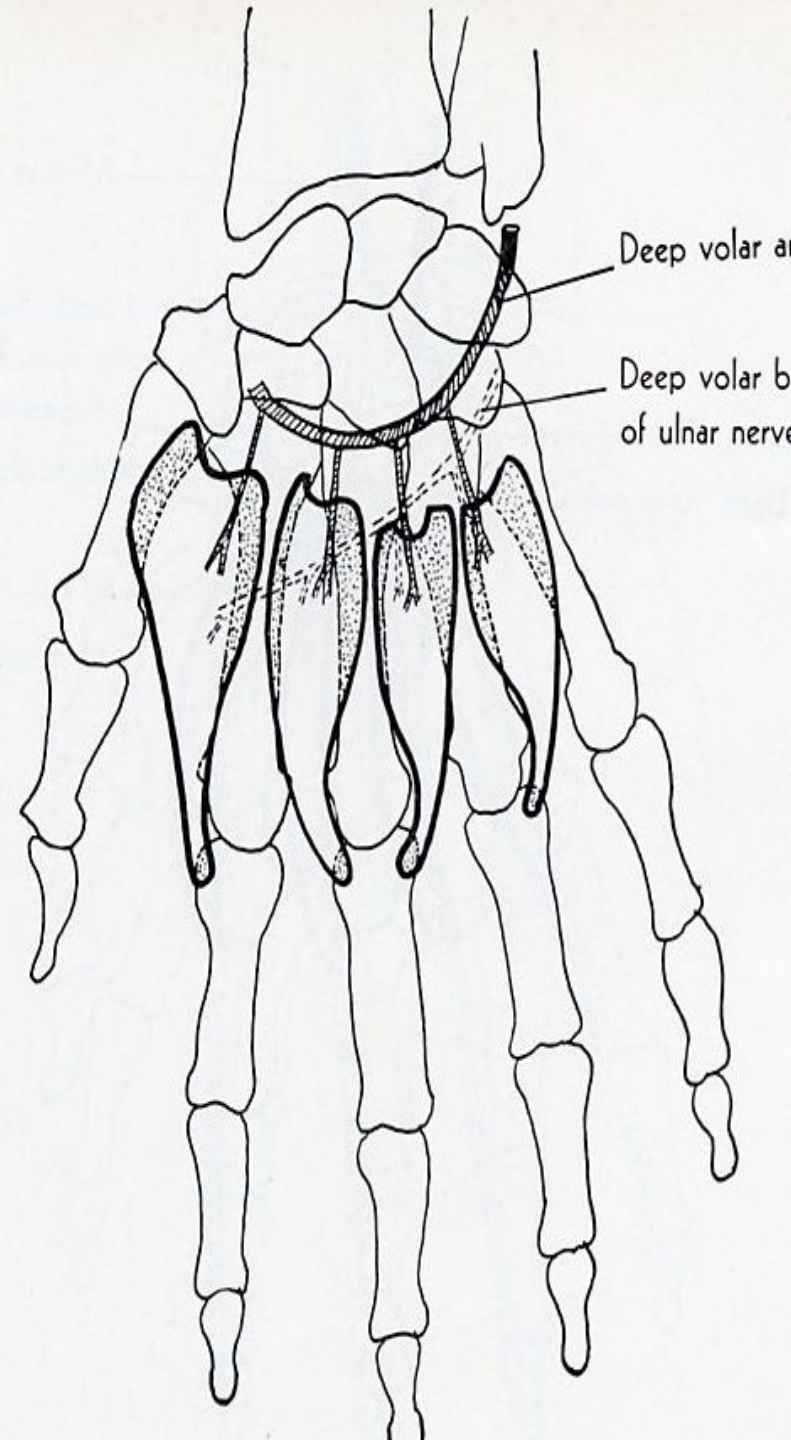
**ORIG:** each of the 4 dorsal interossei arises by 2 heads from adjacent sides of mcp bones.

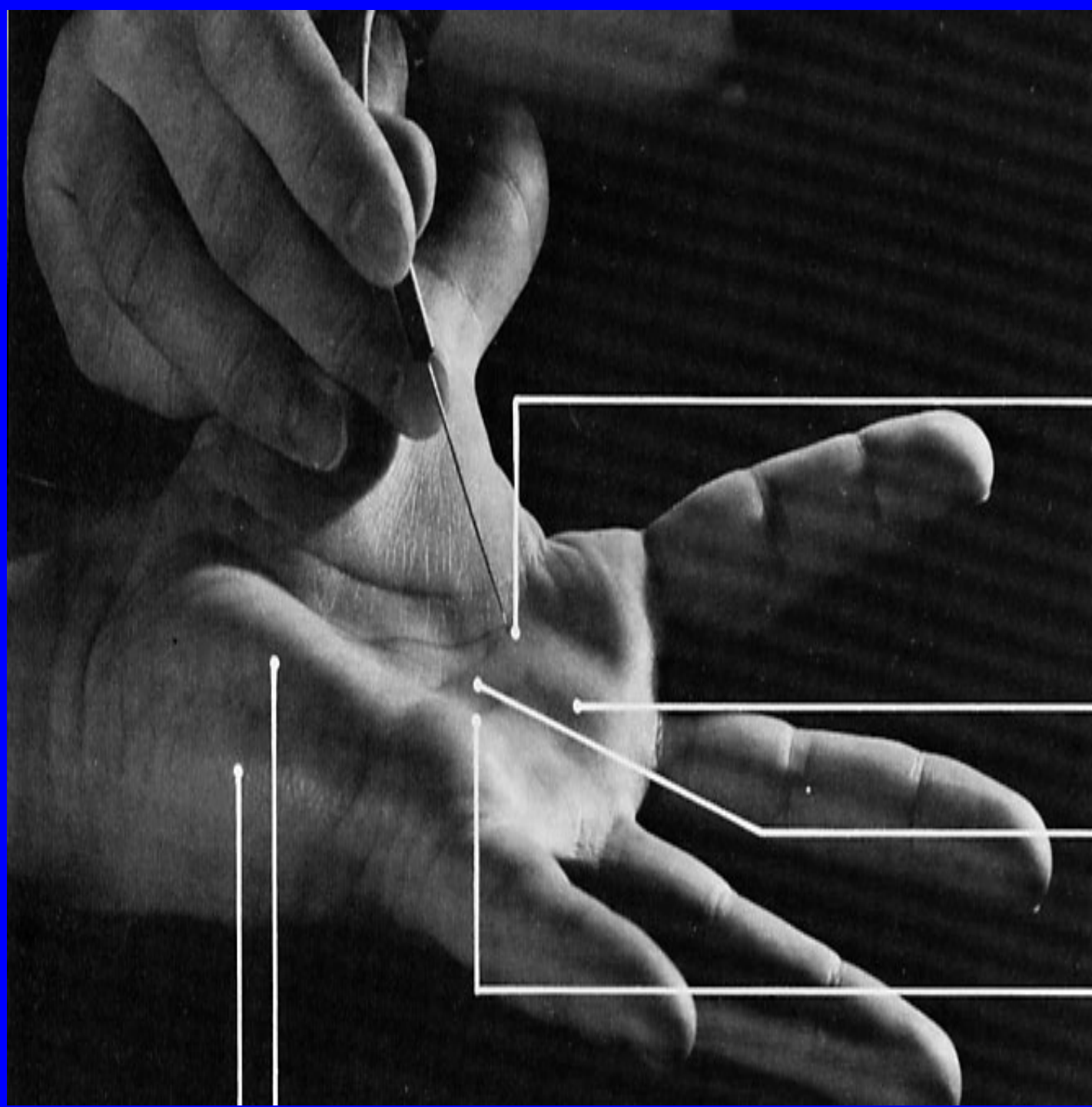
**INS:** 1<sup>st</sup> into radial side of proximal phalanx of 2<sup>nd</sup> digit; 2<sup>nd</sup> into radial side of proximal phalanx of 3<sup>rd</sup> digit, 3<sup>rd</sup> into ulnar side of proximal phalanx of 3<sup>rd</sup> digit, 4<sup>th</sup> into ulnar side of proximal phalanx of 4<sup>th</sup> digit.

**ACTION:** abducts 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> digits from the mid-line of the hand.

**NERVE:** deep branch of the ulnar.

**ROOT:** C8, T1 mainly T1.





pin insertion site for  
**first palmar interosseous**

third metacarpal head

proximal transverse  
flexion crease of palm

distal transverse  
flexion crease of palm



# PALMAR INTEROSSEI

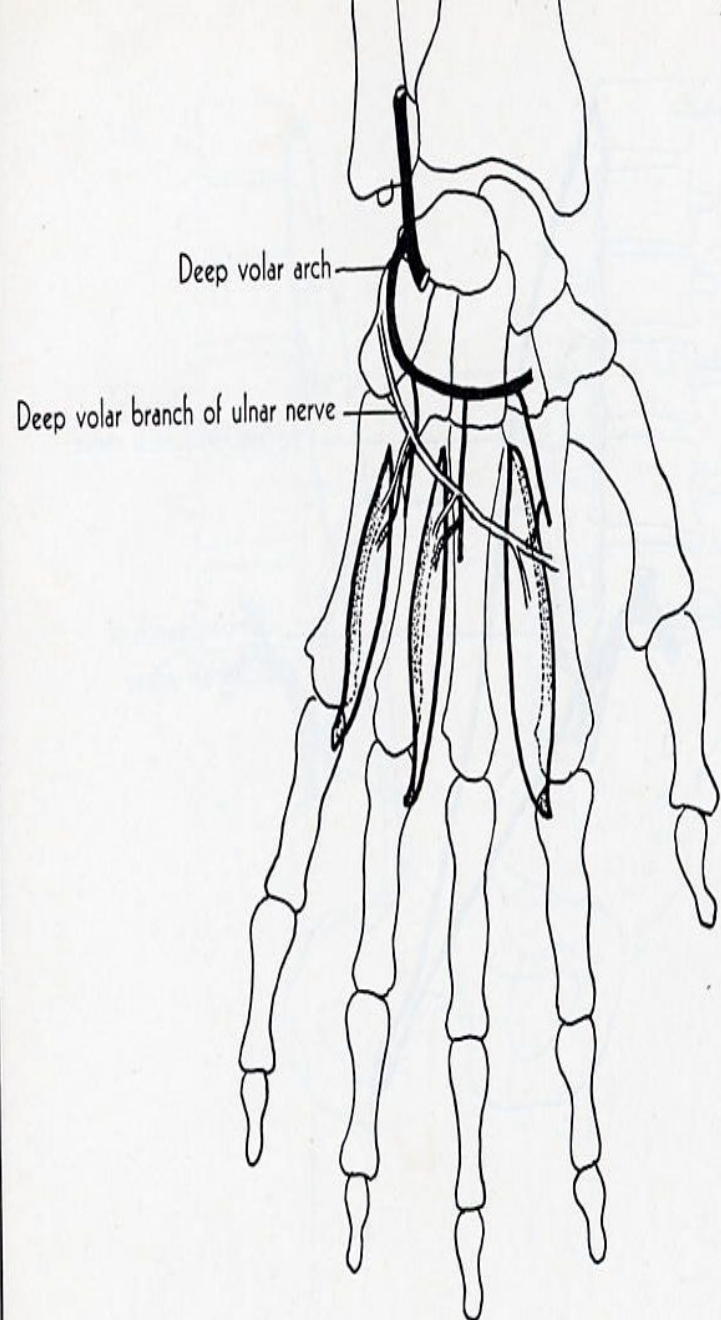
**ORIG:** 3 palmar interossei; 1<sup>st</sup> from ulnar side of 2<sup>nd</sup> mcp, 2<sup>nd</sup> from radial side of 4<sup>th</sup> mcp, 3<sup>rd</sup> from radial side of 5<sup>th</sup> mcp.

**INS:** 1<sup>st</sup> into ulnar side of proximal phalanx of 2<sup>nd</sup> digit; 2<sup>nd</sup> into radial side of proximal phalanx of 4<sup>th</sup> digit, 3<sup>rd</sup> into radial side of proximal phalanx of 5<sup>th</sup> digit.

**ACTION:** adducts digit into which it is inserted towards the 3<sup>rd</sup> digit.

**NERVE:** deep branch of the ulnar.

**ROOT:** C8, T1 mainly T1.





pin insertion site  
for **second lumbrical**

head of third metacarpal





- flexor digitorum superficialis
- flexor carpi ulnaris (belly)
- radial a.
- ulnar a.
- flexor carpi radialis (tendon)
- palmaris longus (tendon)
- brachioradialis (tendon)
- variant slip of flexor carpi ulnaris (tendon) to flexor retinaculum
- ulnar n.
- recurrent branch of median n. to thenar muscles
- opponens digiti minimi
- abductor digiti minimi
- flexor digiti minimi
- 4th lumbrical
- 3rd lumbrical
- flexor digitorum superficialis (tendon to middle finger)
- 2nd lumbrical
- 1st lumbrical
- adductor pollicis
- flexor pollicis brevis
- abductor pollicis brevis
- ulnar a.
- opponens pollicis

# LUMBRICALES

**ORIG:** 4 lumbricals, all from FDP tendons; 1<sup>st</sup> from radial side of tendon for 2<sup>nd</sup> digit, 2<sup>nd</sup> from radial side side of tendon for 3<sup>th</sup> digit, 3<sup>rd</sup> from adj. sides of tendons for 3<sup>th</sup> and 4<sup>th</sup> digits, 4<sup>th</sup> from adjacent sides of tendons for 4<sup>th</sup> and 5<sup>th</sup> digits.

**INS:** with tendons of EDC and interossei into bases of terminal phalanges of medial 4 digits.

**ACTION:** flex fingers at mcp joints, extend fingers at pip joints.

**NERVE:** median to lateral 2, deep branch of the ulnar to med.2 lumbricals.

**ROOT:** C8, T1 mainly T1.

