

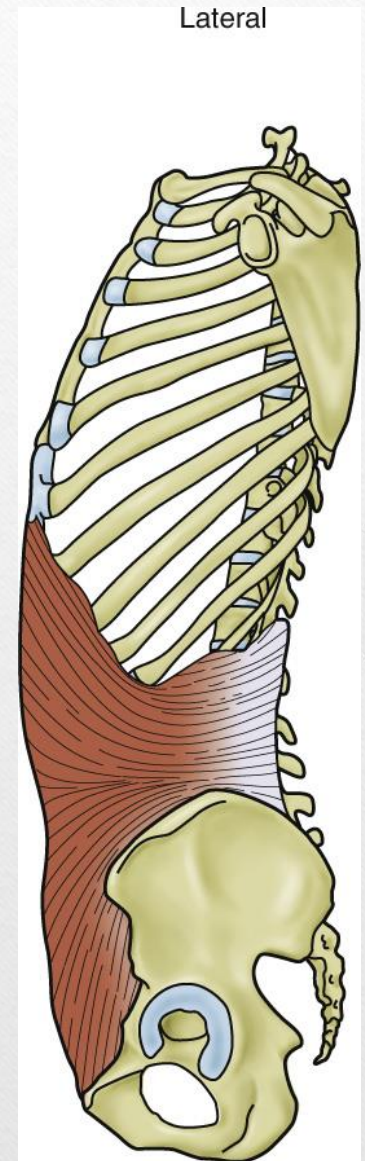
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# Muscles of the Abdominal Wall

# Muscles of the Anterior and Anterolateral Abdominal Wall I

Transversus abdominis

*The transversus abdominis compresses the contents of the abdomen.*



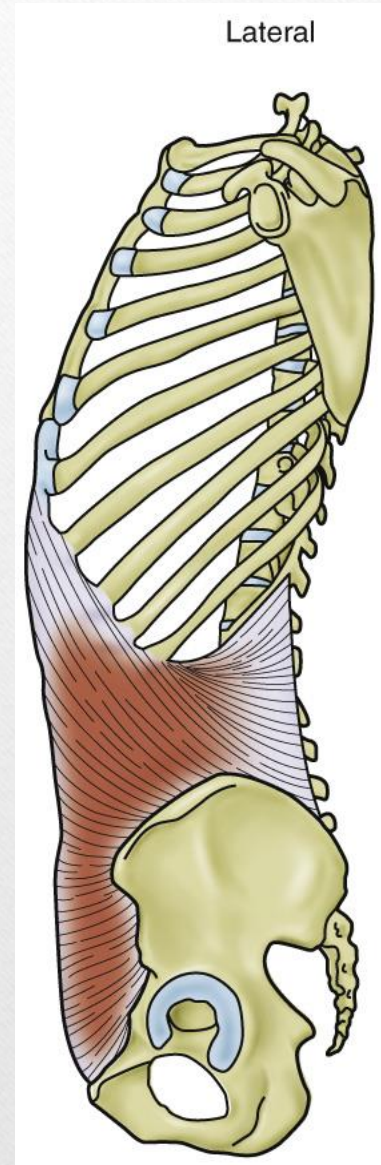


# Muscles of the Anterior and Anterolateral Abdominal Wall II

## Internal abdominal oblique

*The internal and external abdominal obliques  
are slanted in opposite directions.*

*The angle of insertion creates the action, similar  
to intercostals.*



## External abdominal oblique

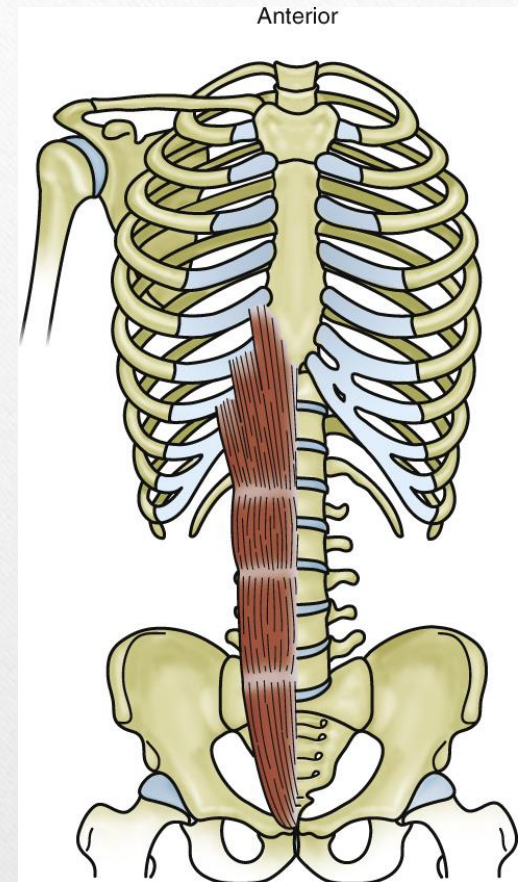




# Muscles of the Anterior and Anterolateral Abdominal Wall III

Rectus abdominis

*Rectus means “straight,” and abdominis  
means “of the abdomen.”*

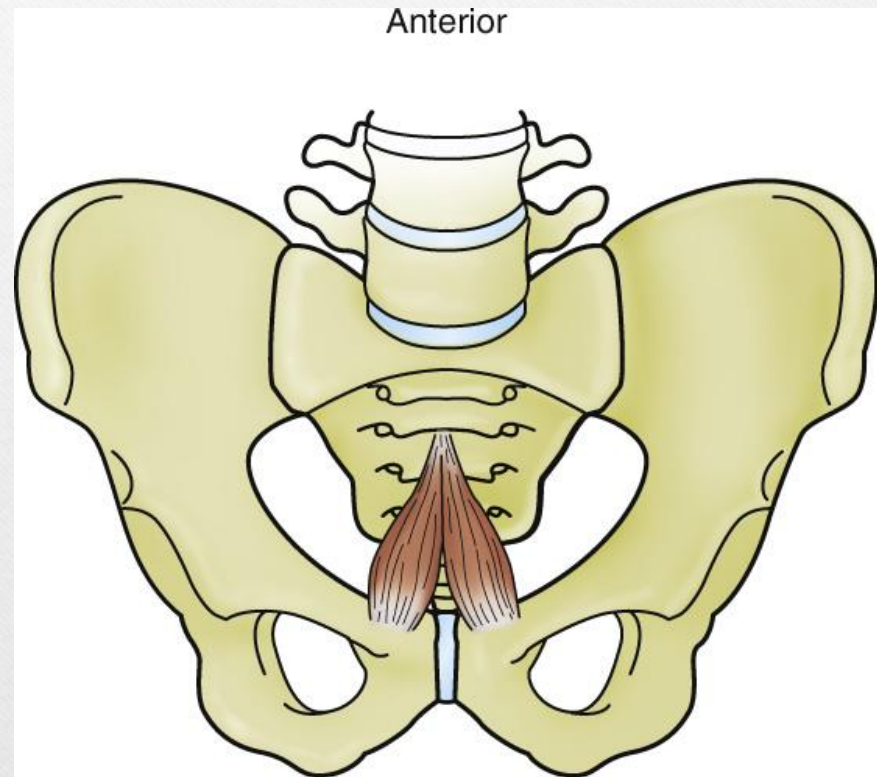


# Muscles of the Anterior and Anterolateral Abdominal Wall IV

## Pyramidalis

*The pyramidalis is a striated muscle, but it is not usually voluntary control.*

*Controls tension of the linea alba.*

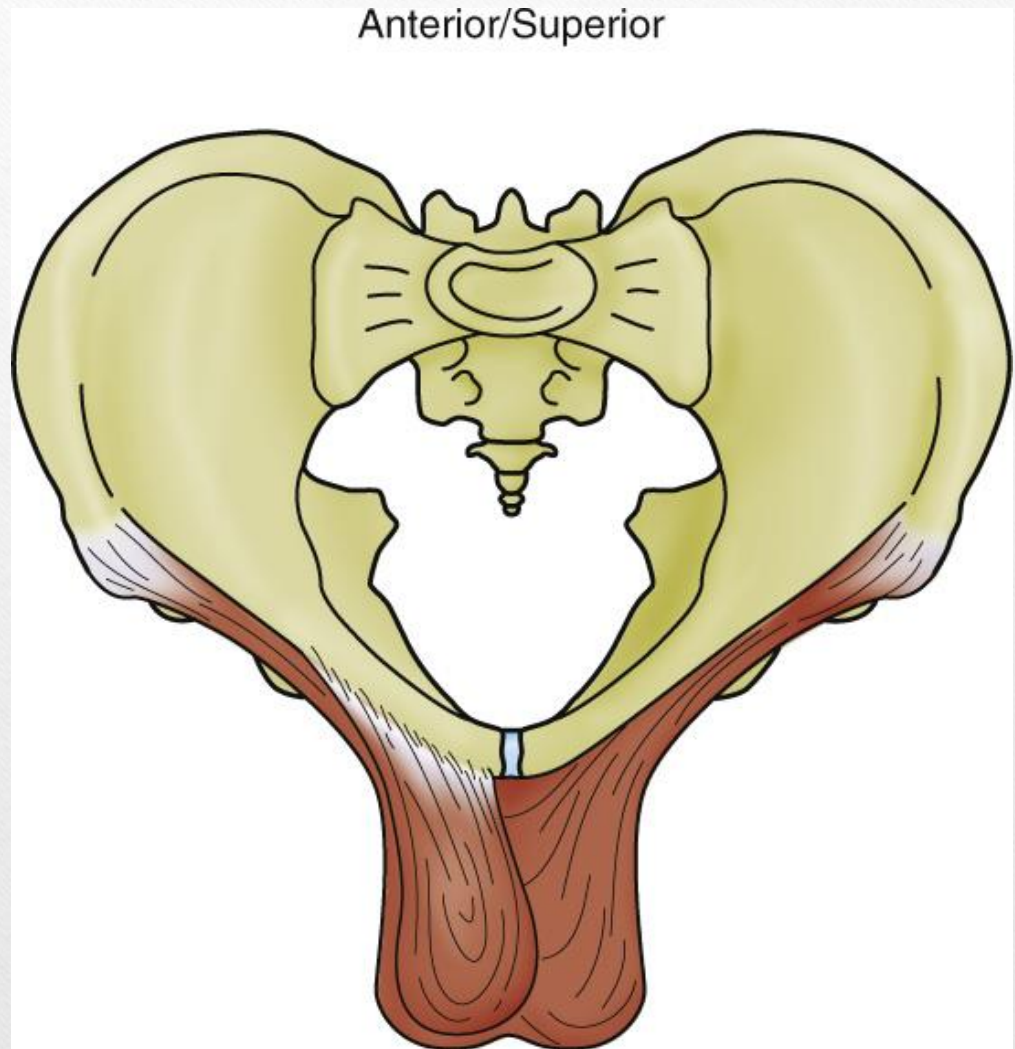




## Cremaster

*What is the function of the cremaster?*

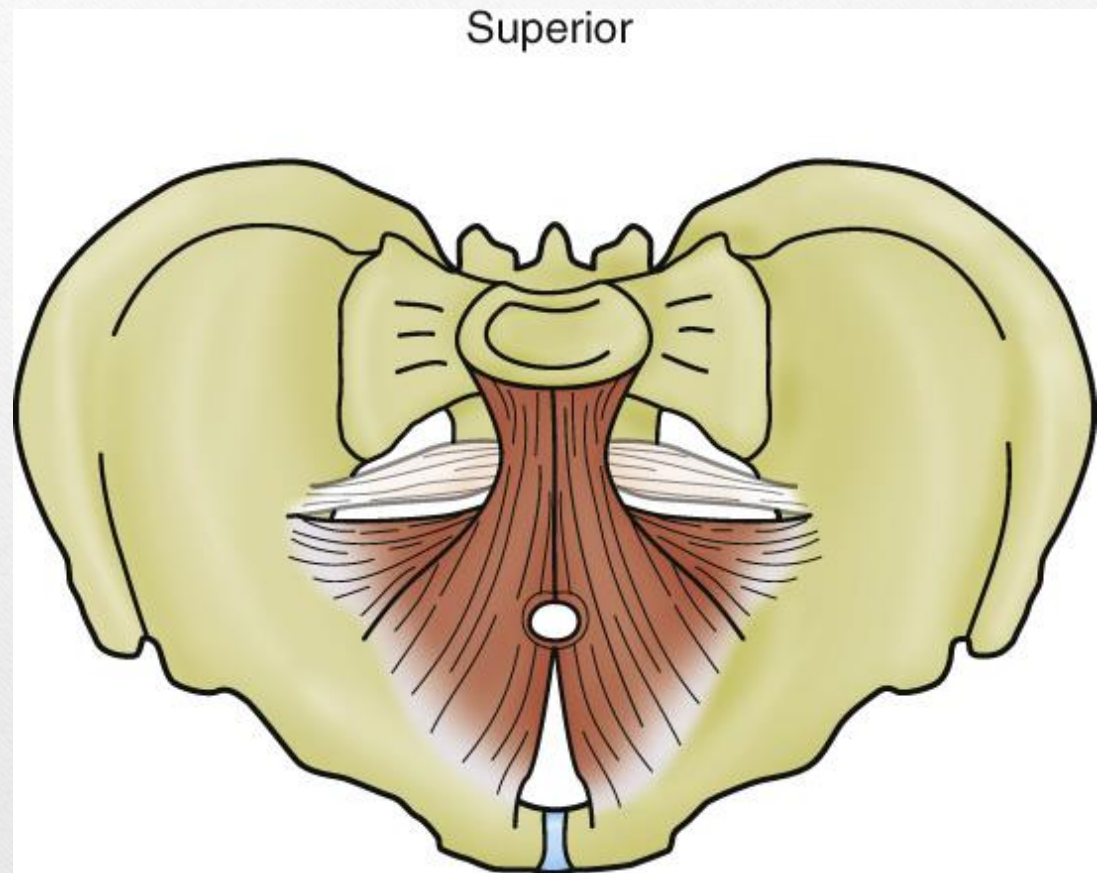
*It pulls the testes superiorly, to regulate their temperature.*



# Pelvic and Perineal Muscles I

## Levator ani

*It forms the floor of the pelvic cavity, constricts the lower end of the rectum and vagina, and supports and slightly raises the pelvic floor.*



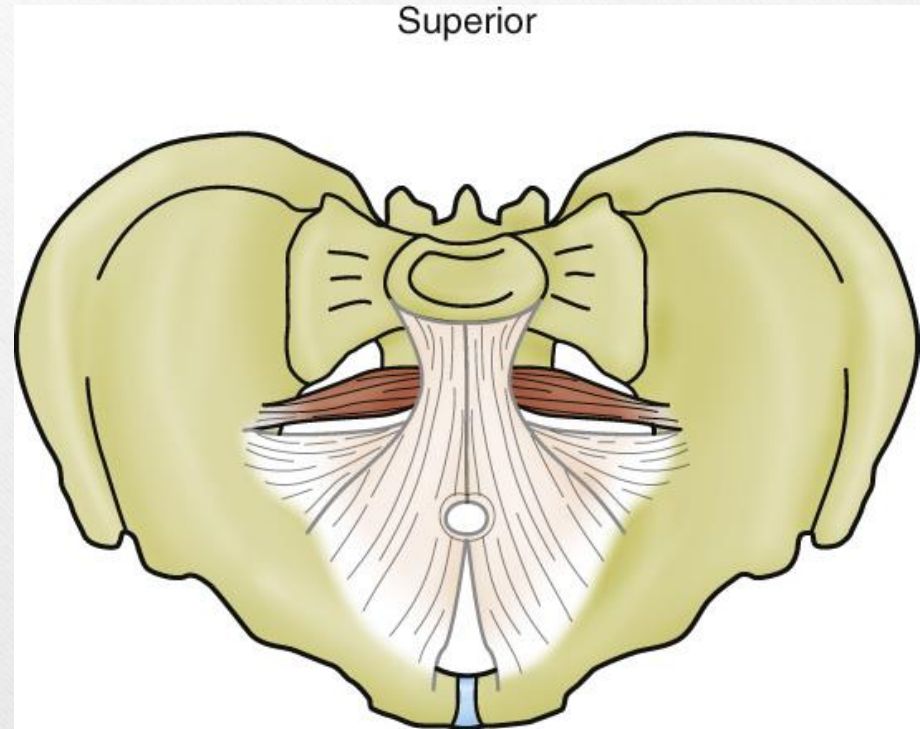


## Coccygeus

*The coccygeus pulls forward and supports the coccyx.*

*Why do massage therapists need to know this when we don't “massage” these muscles?*

*Attention to antagonistic and synergistic muscles that are accessed more easily is indicated.*

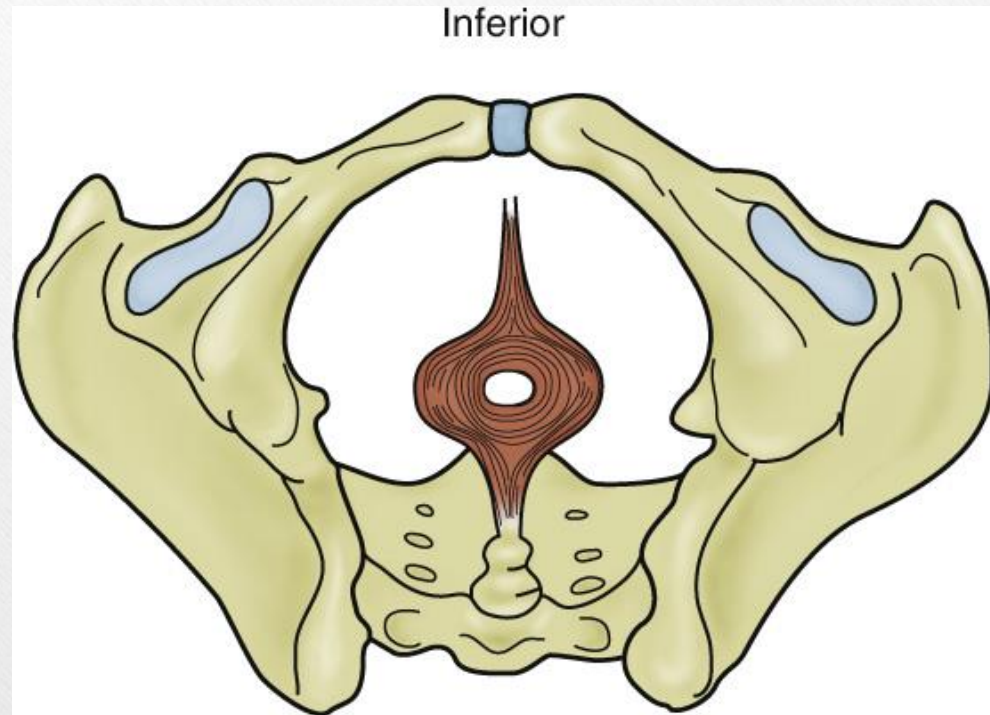


# Pelvic and Perineal Muscles II

External  
sphincter  
ani

*Transverse means  
“crossing” or  
“around”; perineal  
means “to empty” or  
“defecate.”*

*It closes the anal orifice.*

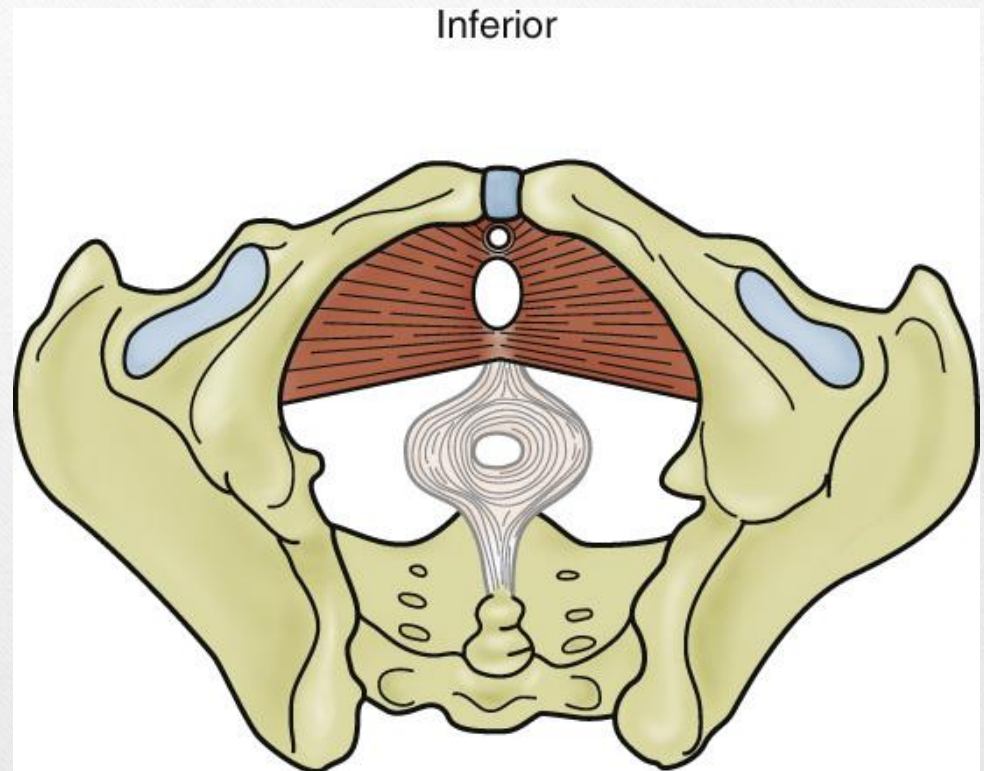




## Deep transverse perineals

*Why do massage therapists need to know this when we don't “massage” these muscles?*

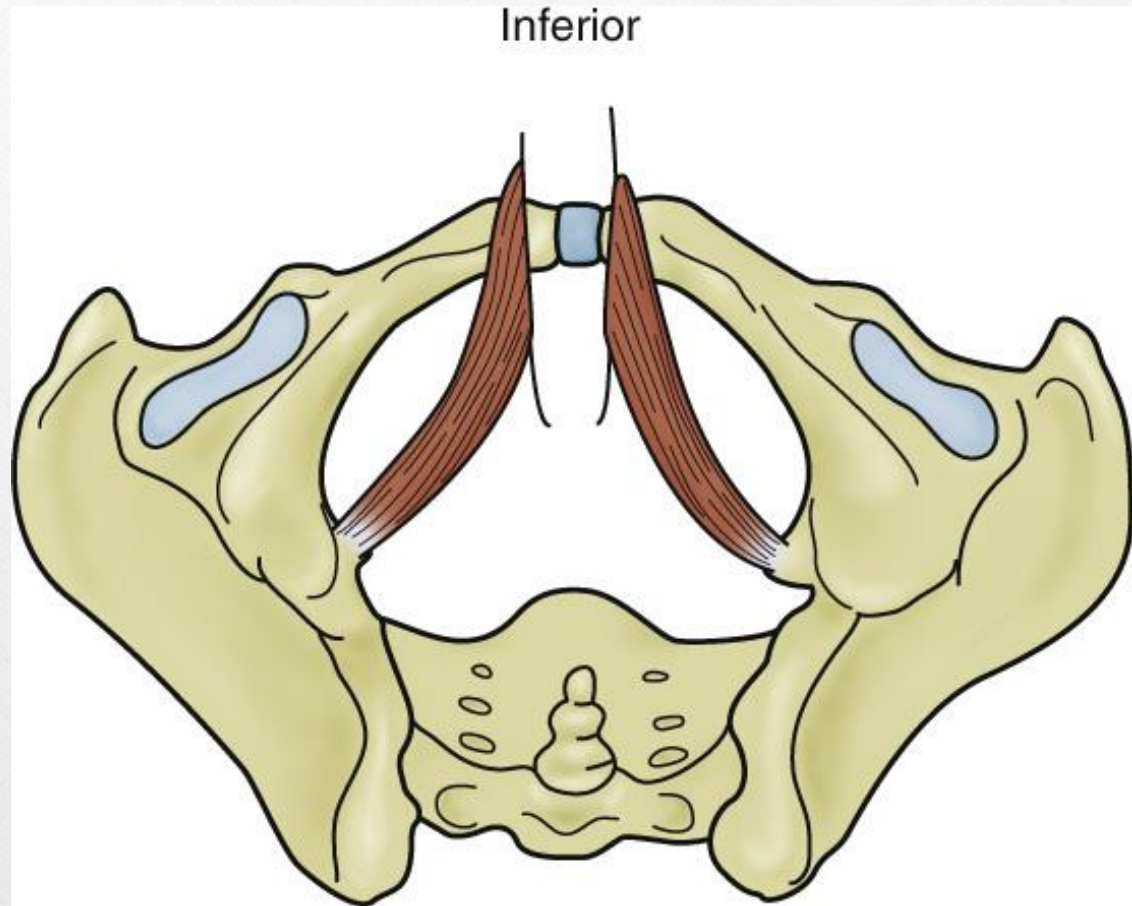
*These muscles act as antagonists and synergists to other muscles that are more readily accessed.*



# Pelvic and Perineal Muscles III

## Ischiocavernosus

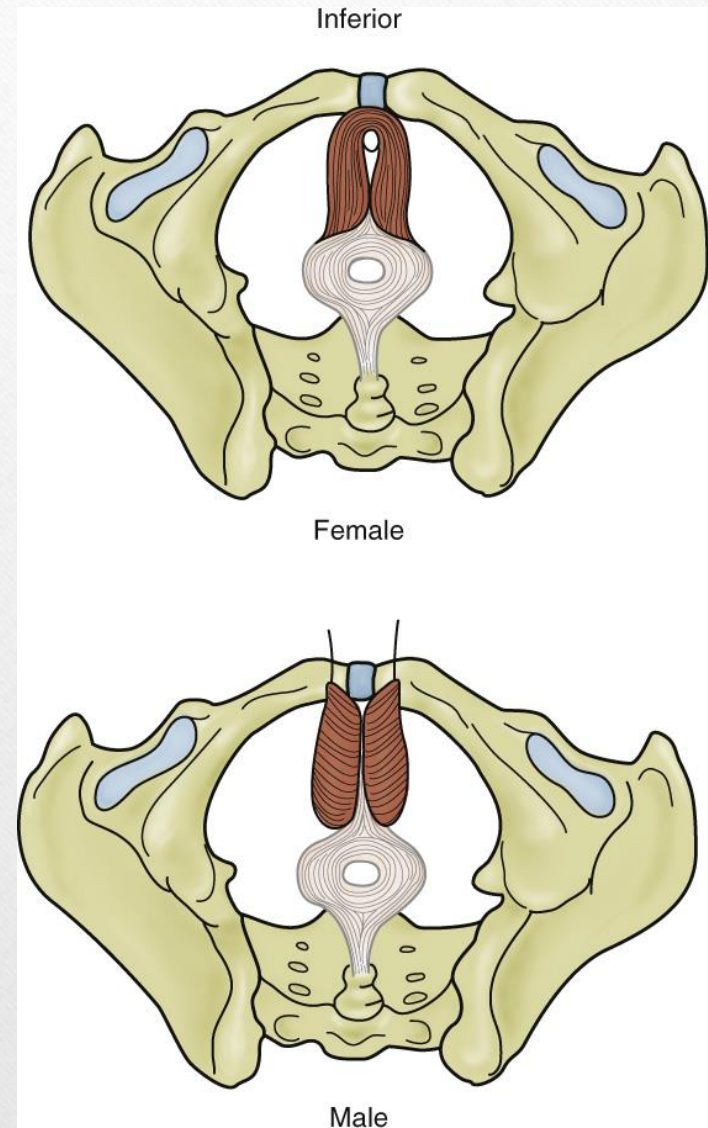
*It compresses the crus penis and is believed to play a part in maintaining erection of the penis or clitoris.*





## Bulbospongiosus

*The bulbospongiosus aids in emptying the urethra.*



# Muscles of the Elbow, Wrist, and Hand



# Muscles of the Elbow and Radioulnar Joint

Elbow: a hinge joint

Limited to flexion and extension of the forearm

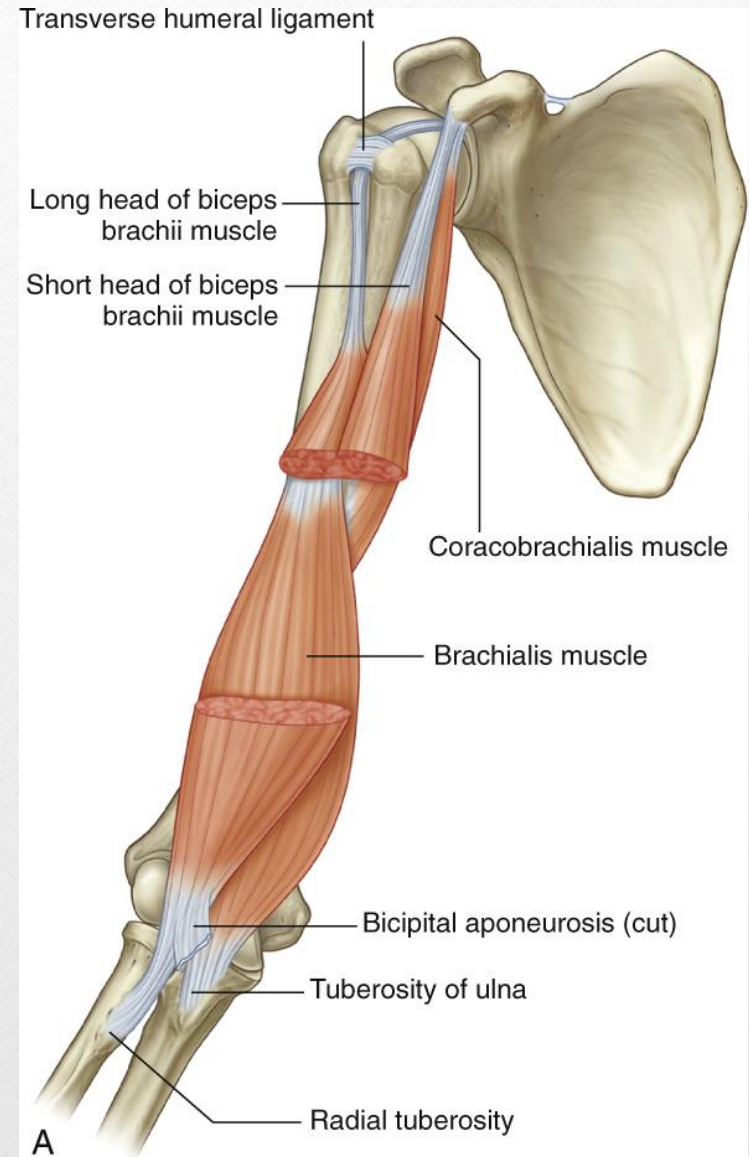
Posterior: extension

Anterior: flexion

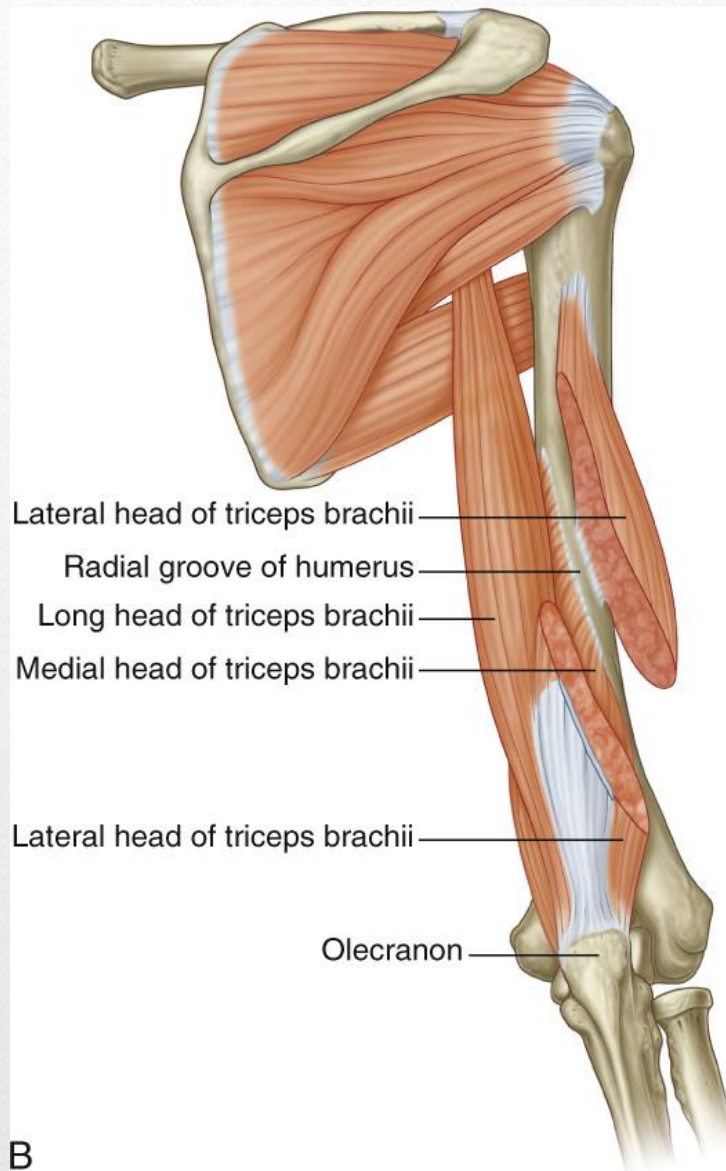
Strongest elbow flexor: brachialis

*The muscles in this area often operate with flexors of the legs because of the gait.*

# Biceps Brachii and Brachialis Muscles and Triceps Muscle

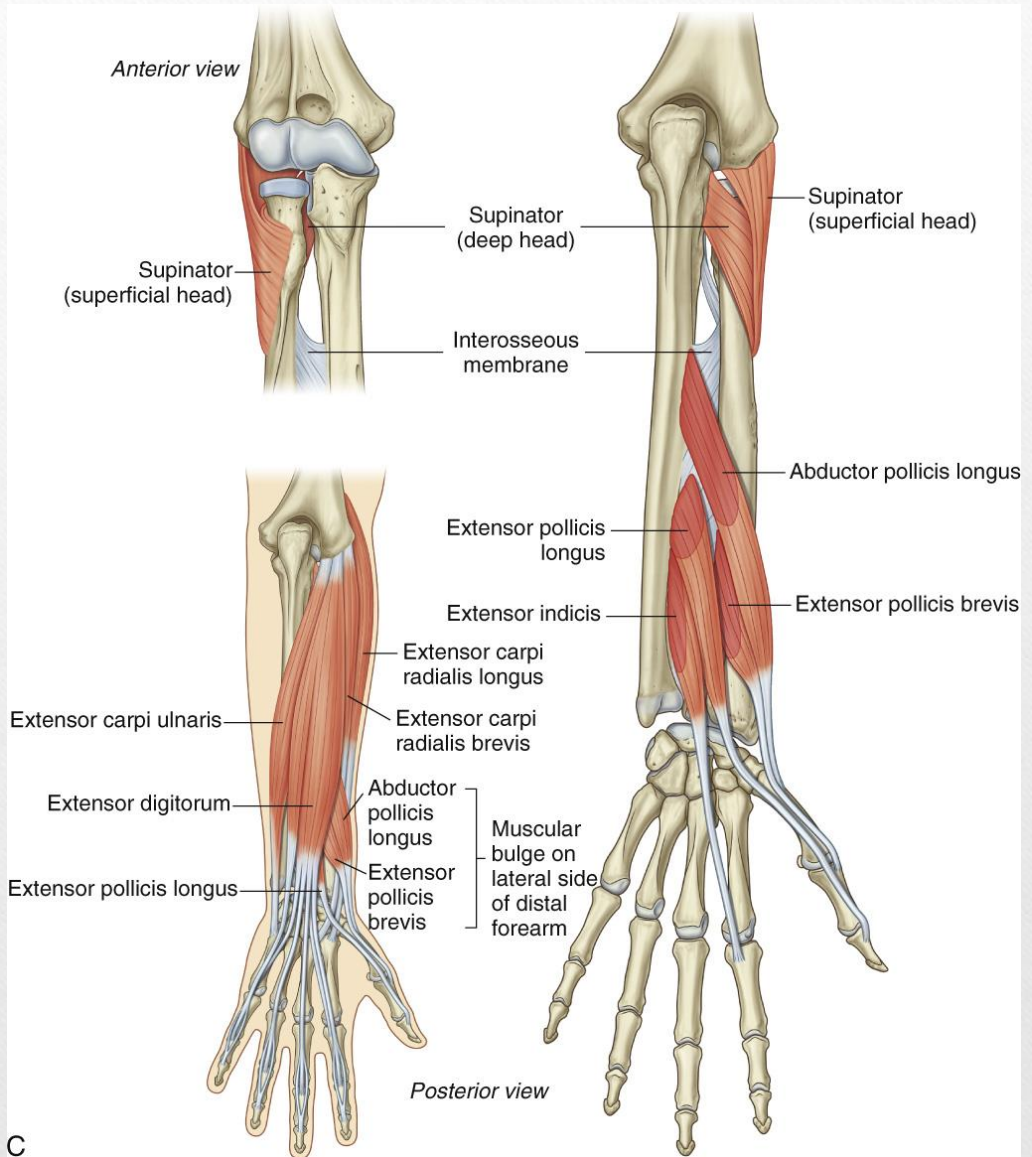






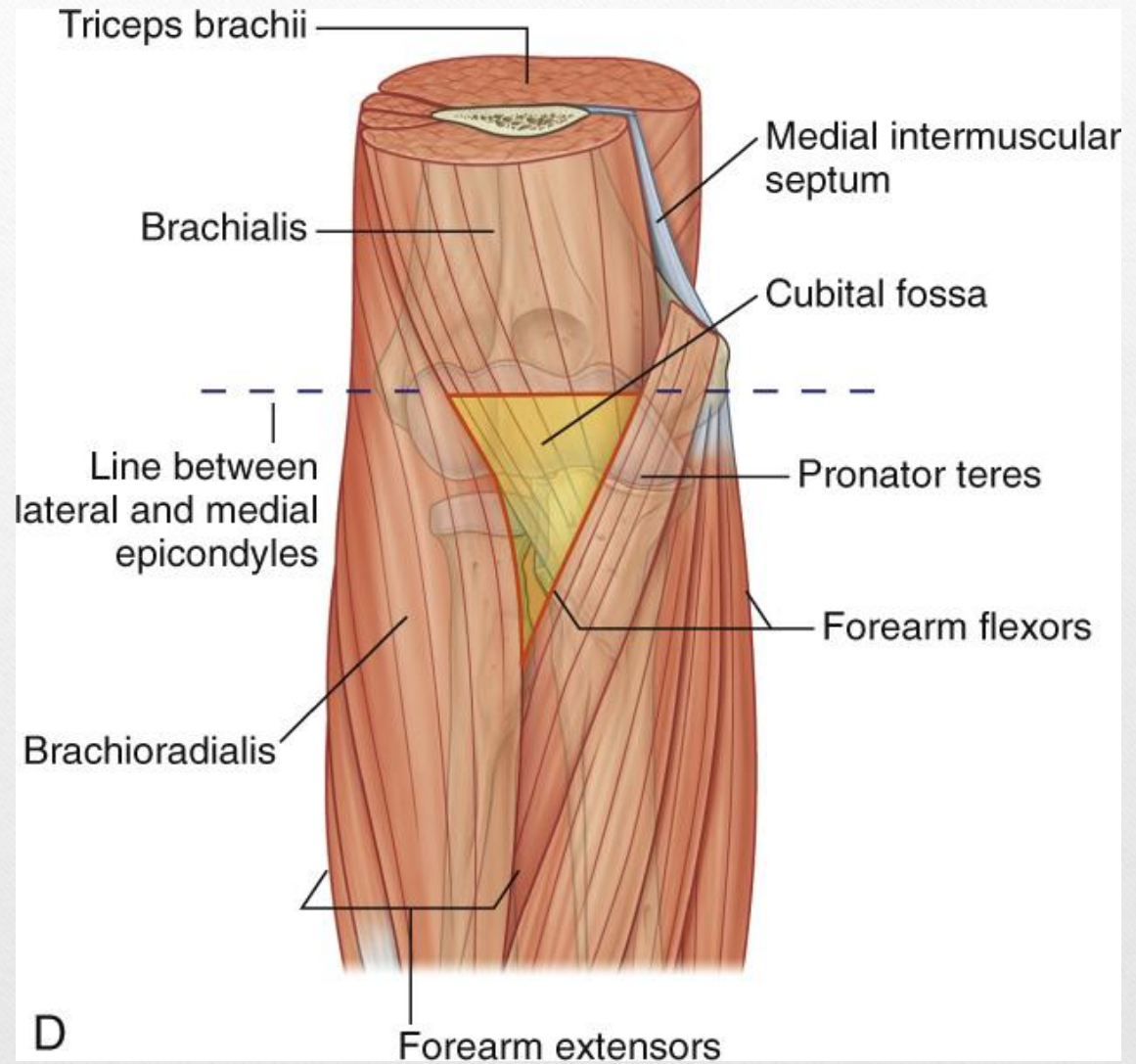
B

# Deep Muscles in Posterior Forearm





# Cross Section of Arm

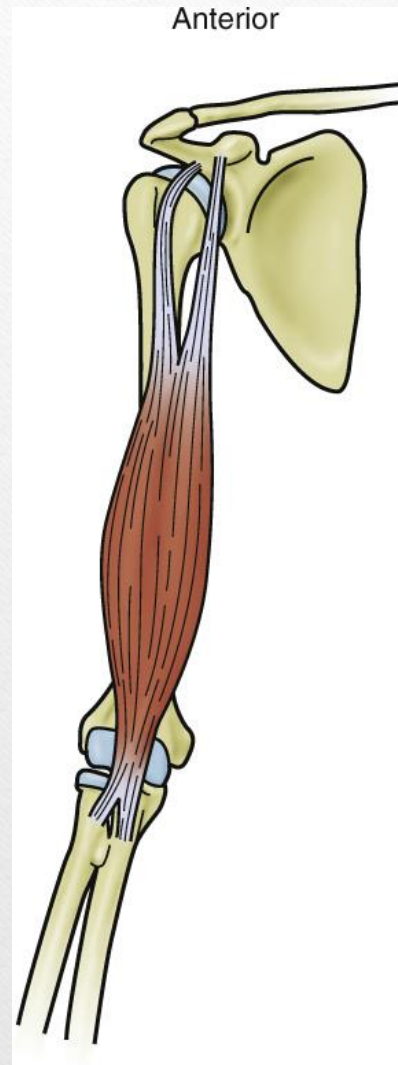


# Muscles of the Elbow and Radioulnar Joint I

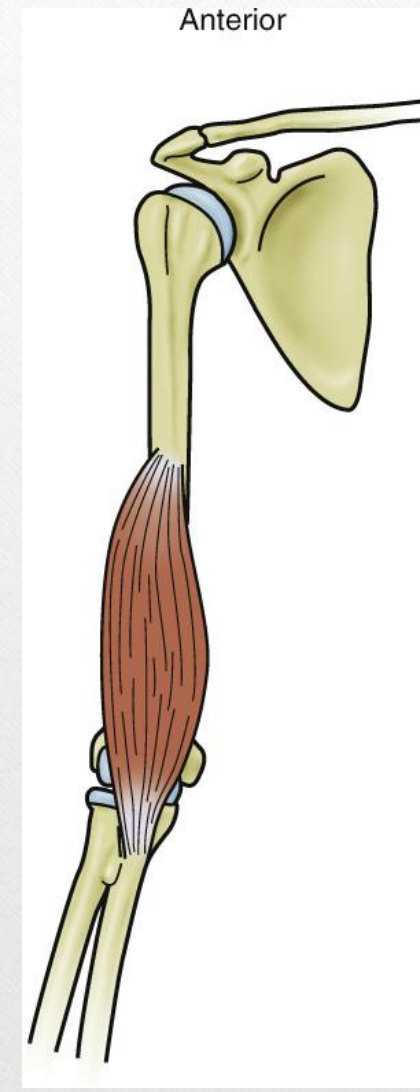
*What is the concentric function of the biceps brachii?*

*Flexion of the forearm at the elbow joint, supination of the forearm at the radioulnar joints, and flexion of the forearm at the shoulder joint.*

*Brachialis stabilizes the elbow joint.*



Biceps brachii

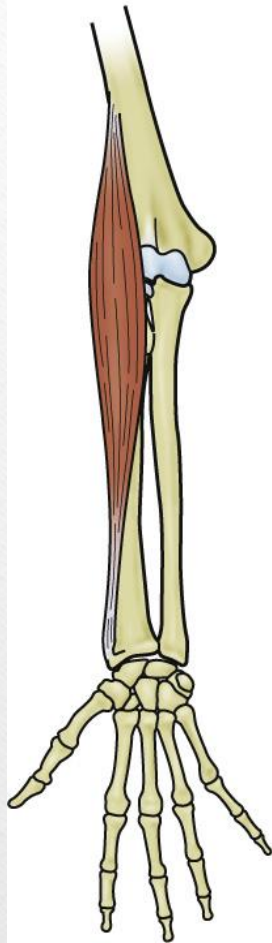


Brachialis



# Muscles of the Elbow and Radioulnar Joint II

Anterior

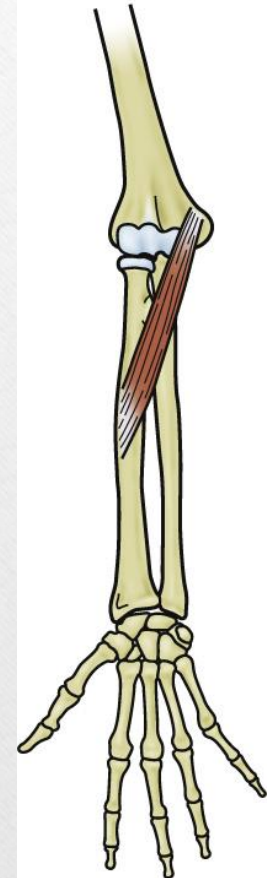


Brachioradialis

*What is the referred pain pattern of the brachioradialis? (The wrist and base of the thumb in the web space between the thumb and the index finger and to the lateral epicondyle at the elbow.)*

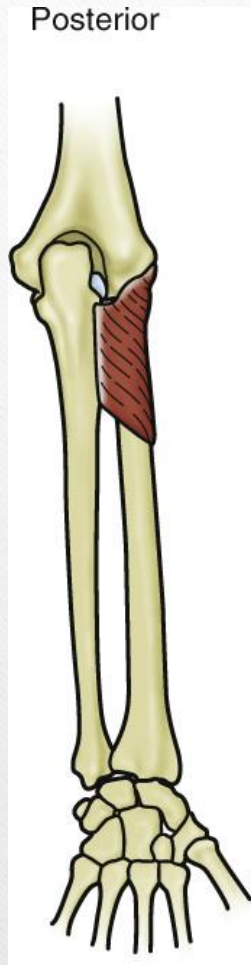
*What is the concentric function of the pronator teres? (Pronation of the forearm at the radioulnar joints and flexion of the forearm at the elbow joint.)*

Anterior



Pronator teres

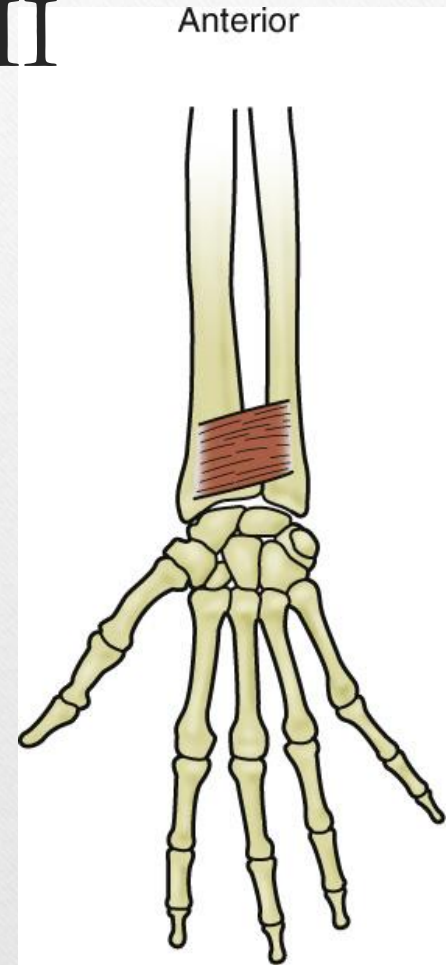
# Muscles of the Elbow and Radioulnar Joint III



Supinator

*Not surprisingly, the supinator is involved in supination and the restraint of pronation.*

*The pronator quadratus is the prime mover of pronation of the forearm.*



Pronator quadratus



# Muscles of the Elbow and Radioulnar Joint IV

Posterior



Triceps brachii

*What is the concentric function of the triceps brachii?  
(Extension of the forearm at the elbow joint; also, the long head adducts and extends the arm at the shoulder joint.)*

*Anconeus stabilizes the elbow.*

Posterior

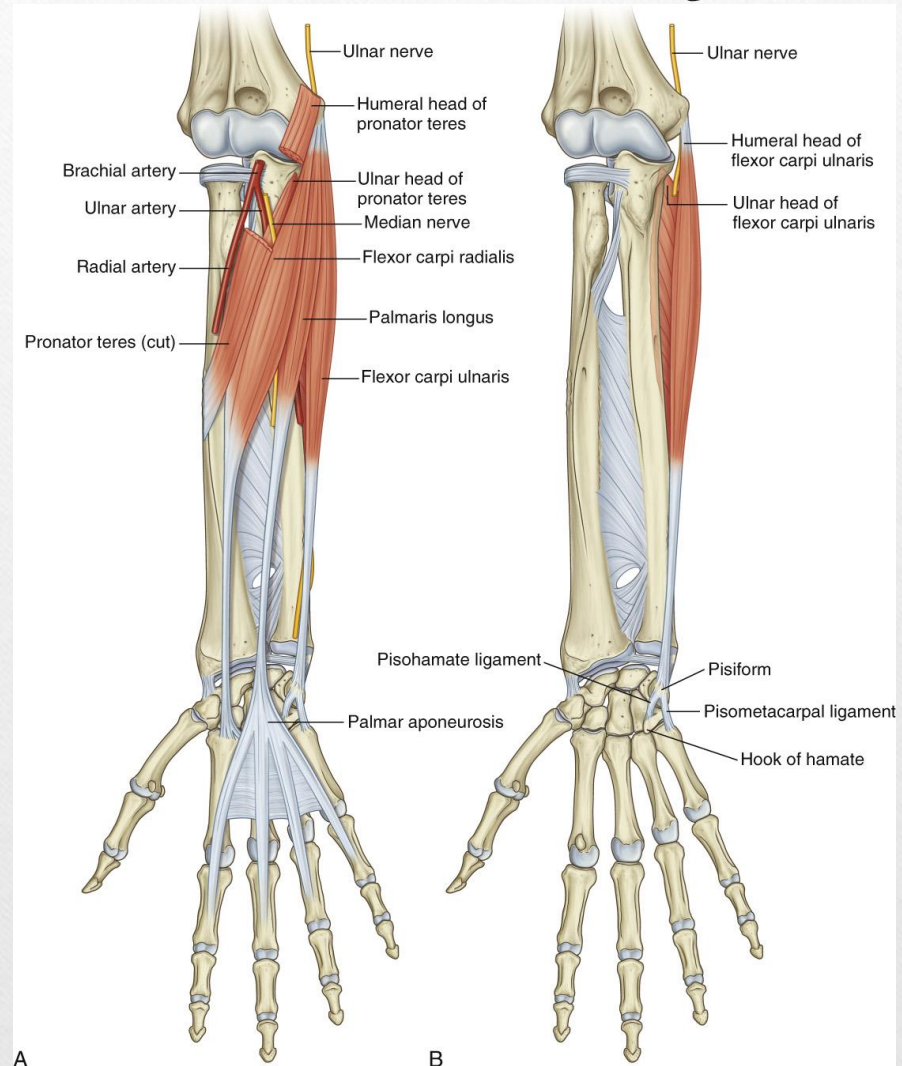


Anconeus

# Muscles of the Wrist and Hand Joints

*If all the muscles required for the hands' strong, intricate movements were located in the hands, they would be too bulky to function.*

*Tendons are important for functioning and need to be taken care of with massage therapists' work in mind.*





Anterior



Flexor carpi radialis

# Anterior Flexor Group: Superficial Layer I

*What is the concentric function of the flexor carpi radialis? (Flexion and radial deviation (abduction) of the hand at the wrist joint, flexion of the forearm at the elbow joint, and pronation of the forearm at the radioulnar joints.)*

*In its isometric function, the palmaris longus tenses the palmar fascia.*

Anterior



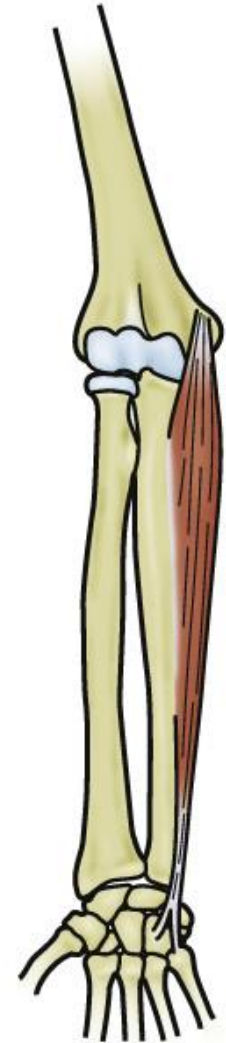
Palmaris longus

# Anterior Flexor Group: Superficial Layer II

Flexor carpi ulnaris

*It restrains extension and radial deviation (abduction) of the hand and extension of the forearm.*

Anterior

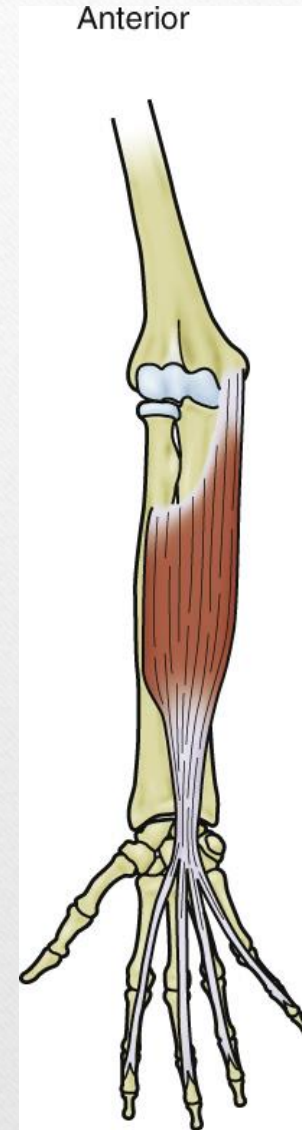




# Anterior Flexor Group: Intermediate Layer

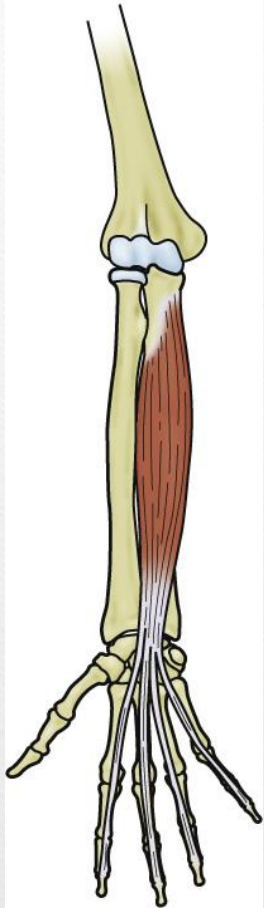
Flexor digitorum superficialis

*The flexor digitorum superficialis is involved in flexion of fingers 2 to 5, as well as flexion of the hand.*



# Anterior Flexor Group: Deep Layer

Anterior

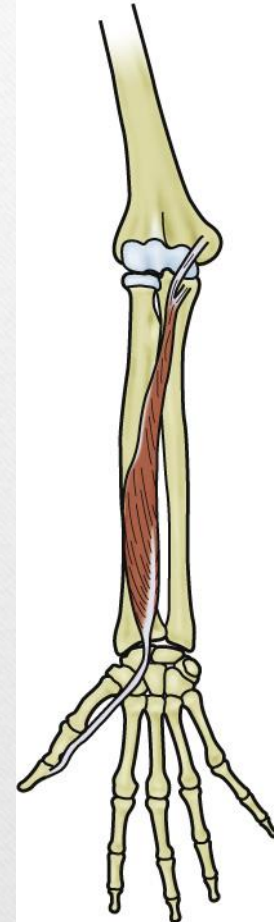


Flexor digitorum profundus

*Flexor digitorum profundus stabilizes the wrist and finger joints.)*

*What is the referred pain pattern of the flexor pollicis longus? (Into the wrist, associated fingers, or thumb, and occasionally into the elbow.)*

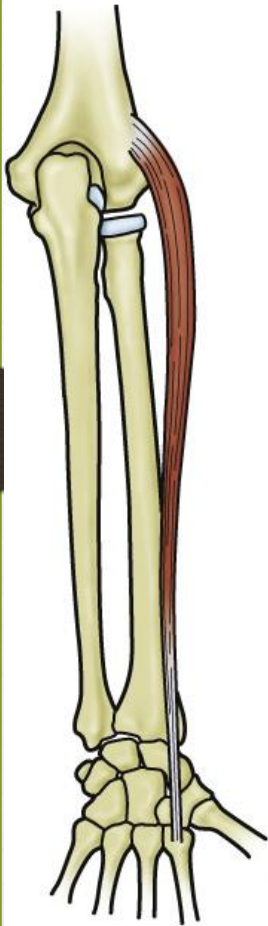
Anterior



Flexor pollicis longus



Posterior



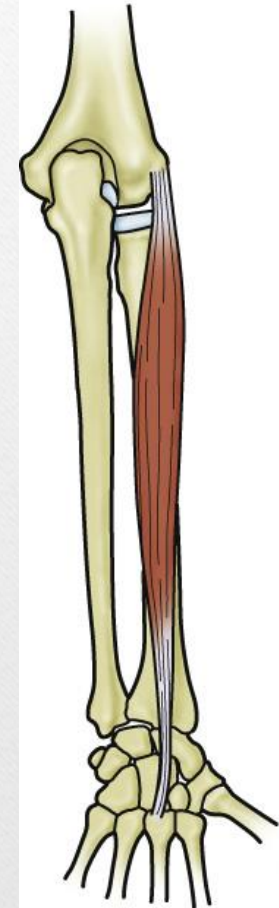
Extensor carpi radialis longus

# Posterior Extensor Group: Superficial Layer I

*What is the concentric function of the extensor carpi radialis longus? (Extension and radial deviation (abduction) of the hand at the wrist joint and flexion of the forearm at the elbow joint.)*

*The extensor carpi radialis brevis performs similar tasks.*

Posterior



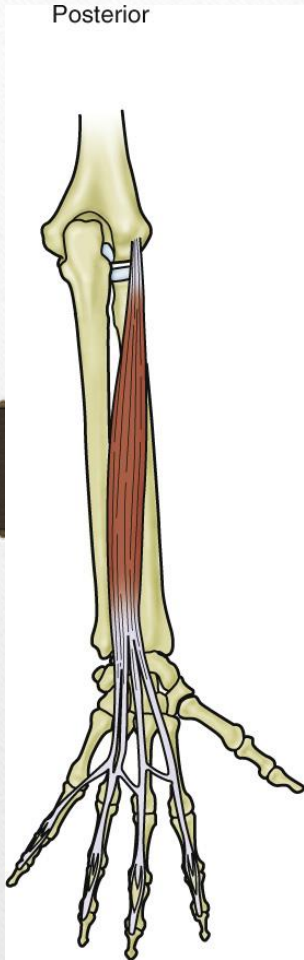
Extensor carpi radialis brevis

# Posterior Extensor Group:

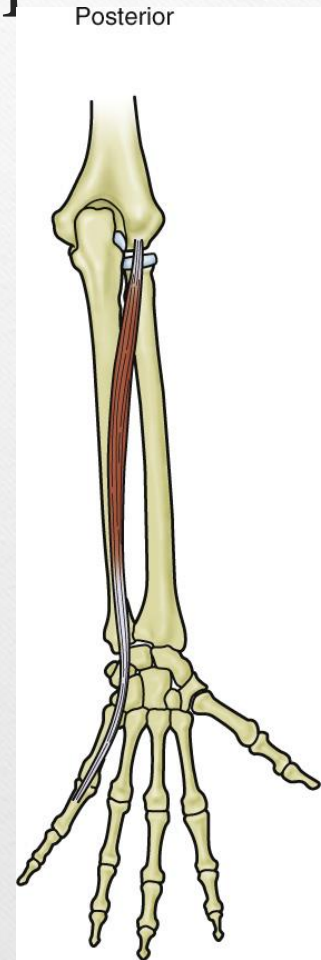
## Superficial Layer II

*What is the concentric function of the extensor digitorum? (Extension of fingers 2 to 5 at the metacarpophalangeal and proximal and distal interphalangeal joints and extension of the hand at the wrist joint.)*

*What is the isometric function of the extensor digiti minimi? (It stabilizes the little finger.)*



Extensor digitorum



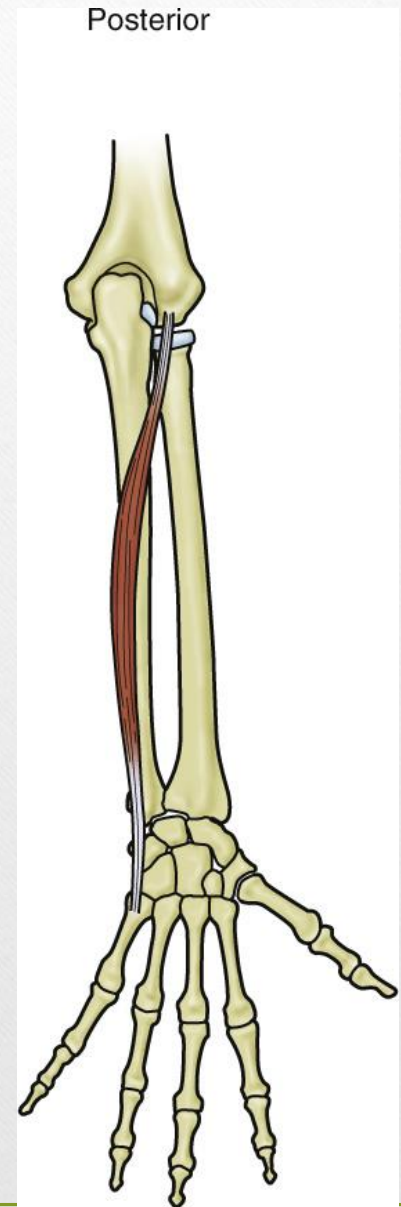
Extensor digiti minimi



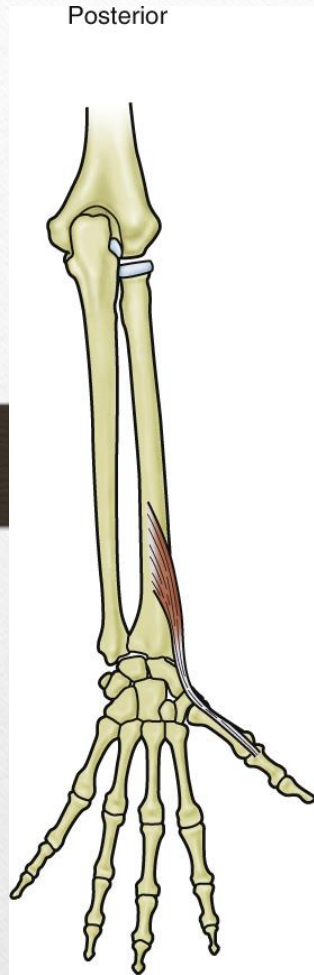
# Posterior Extensor Group: Superficial Layer III

Extensor carpi ulnaris

*The major antagonists of the extensor carpi ulnaris are all the flexors of the hand.*



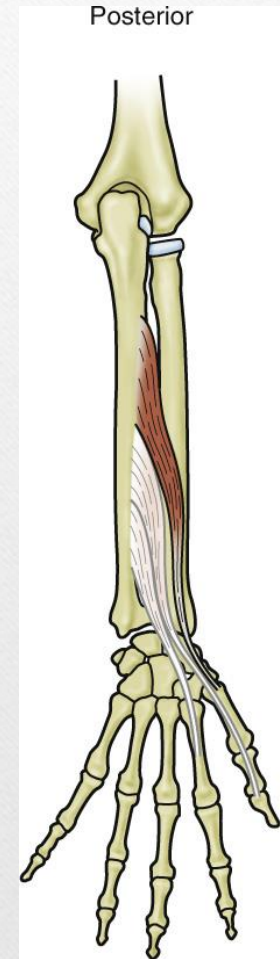
# Posterior Extensor Group: Deep Layer I



Extensor pollicis brevis

*What is the eccentric function of the extensor pollicis brevis? (It restrains flexion and adduction of the thumb, ulnar deviation (adduction) of the hand, and pronation of the forearm.)*

*In its isometric function, the abductor pollicis longus stabilizes the thumb and the wrist joint.*

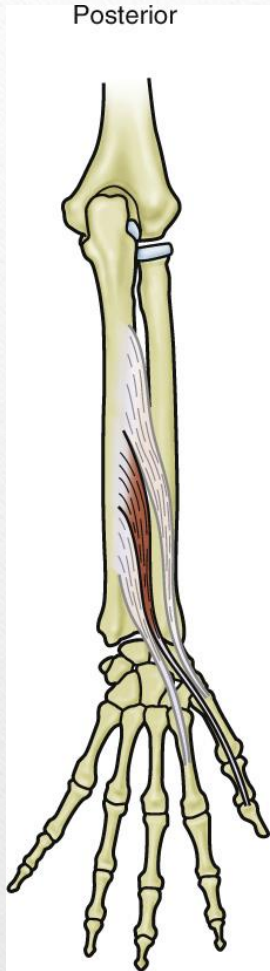


Abductor pollicis longus



# Posterior Extensor Group:

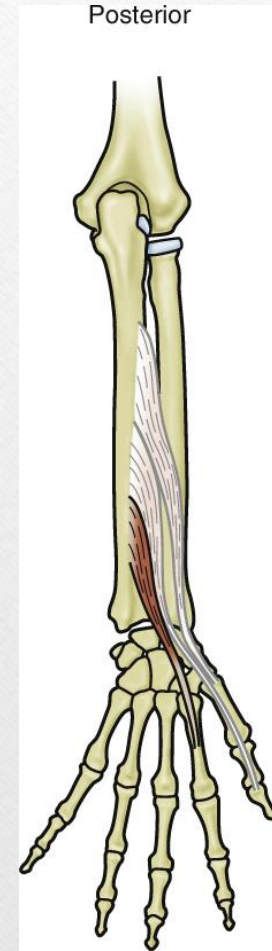
## Deep Layer II



Extensor pollicis longus

*What is the concentric function of the extensor pollicis longus? (Extension of the thumb at the carpometacarpal, metacarpophalangeal, and interphalangeal joints.)*

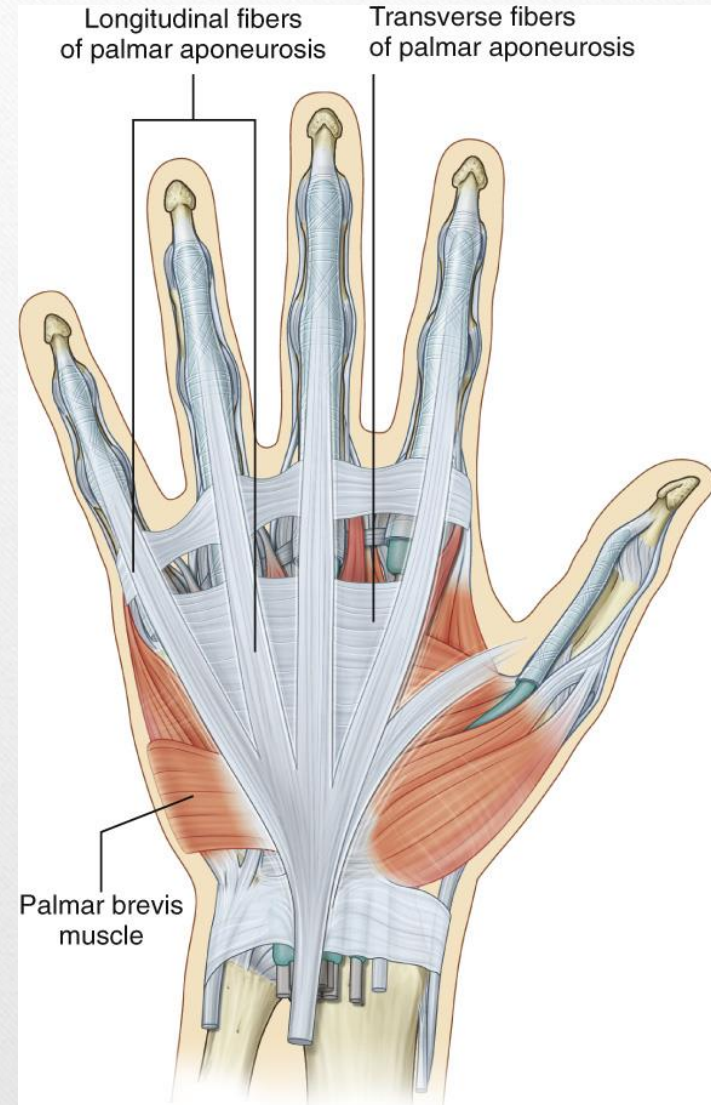
*Extensor means “one that stretches,” and indicis means “of the index finger.”*



Extensor indicis

# Intrinsic Muscles of the Hand: Palmar Aponeurosis

*The opponens pollicis is  
involved in the opposition of the  
thumb.*

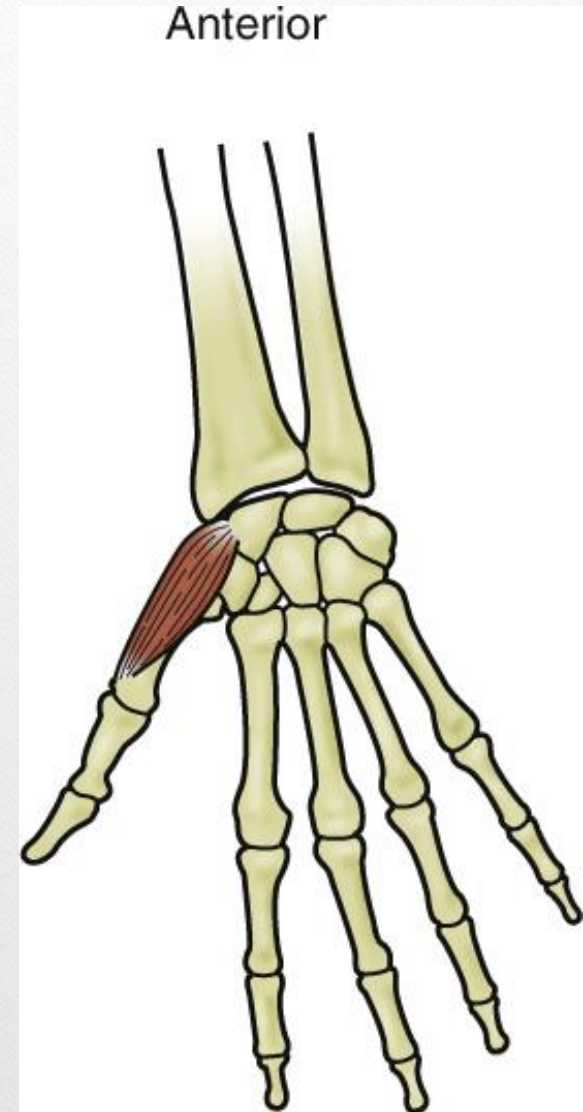




# Intrinsic Muscles of the Hand: Thenar Eminence Muscles I

Opponens pollicis

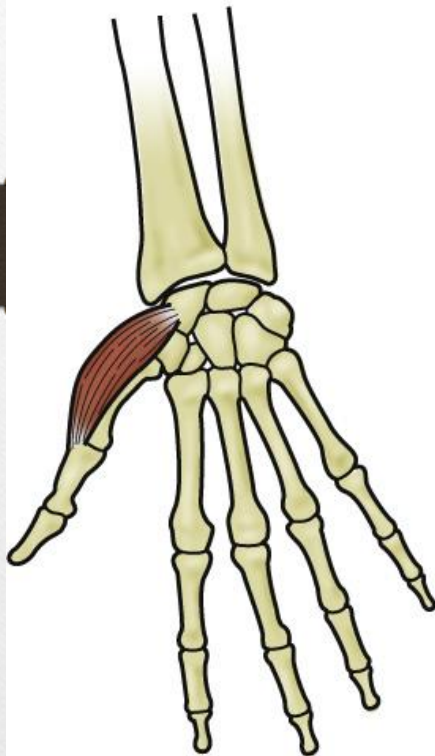
*The opponens pollicis is involved in the opposition of the thumb.*



# Intrinsic Muscles of the Hand:

## Thenar Eminence Muscles II

Anterior

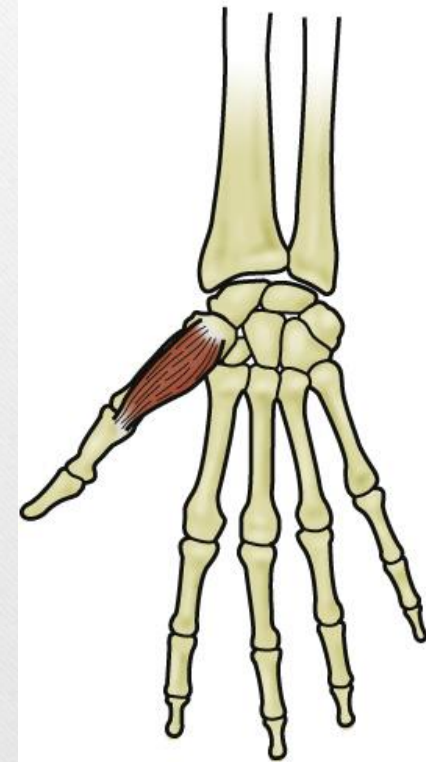


Abductor pollicis brevis

*What is the referred pain pattern of the abductor pollicis brevis? (Into the thumb and the wrist.)*

*The flexor pollicis brevis shares the same referred pain pattern as the abductor.*

Anterior

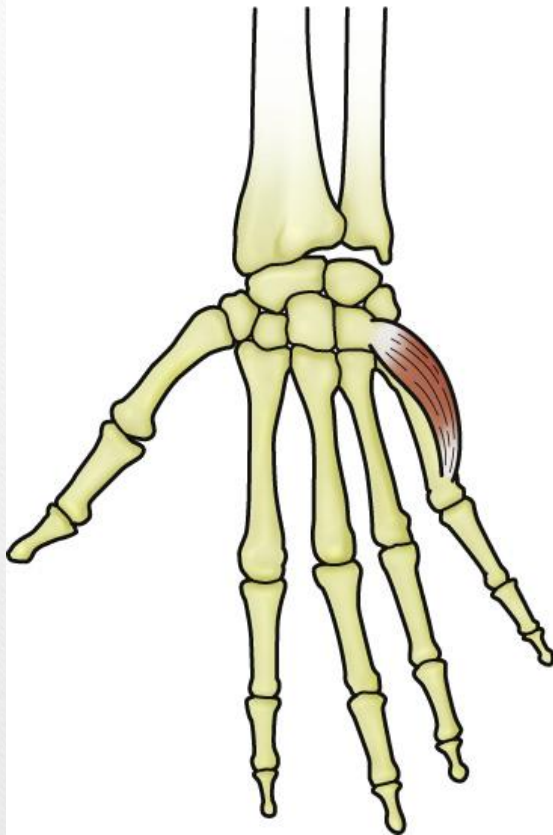


Flexor pollicis brevis



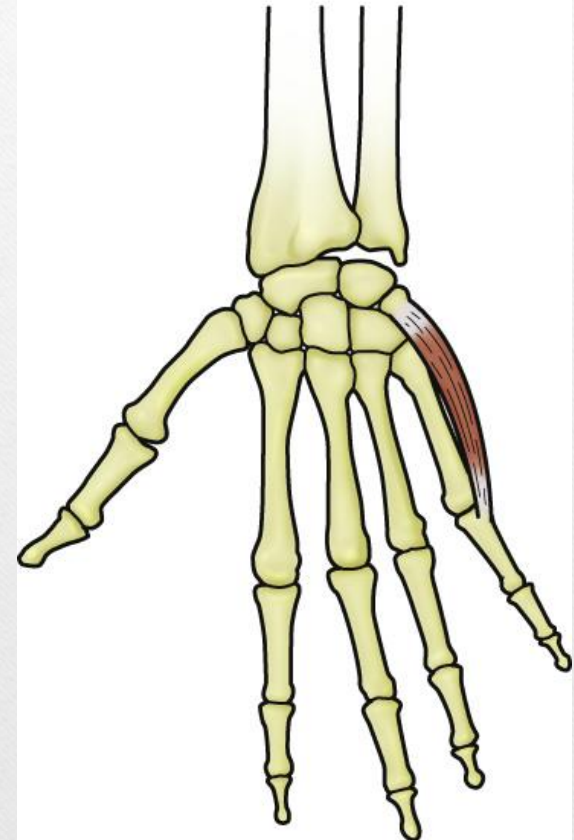
# Hypothenar Muscles I

Anterior



Opponens digiti minimi

Anterior



Abductor digiti minimi manus

*What is the eccentric function of the opponens digiti minimi?*

*It restrains reposition of the little finger.*

*What is the concentric function of the abductor digiti minimi manus?*

*Abduction of the little finger at the metacarpophalangeal joint.*

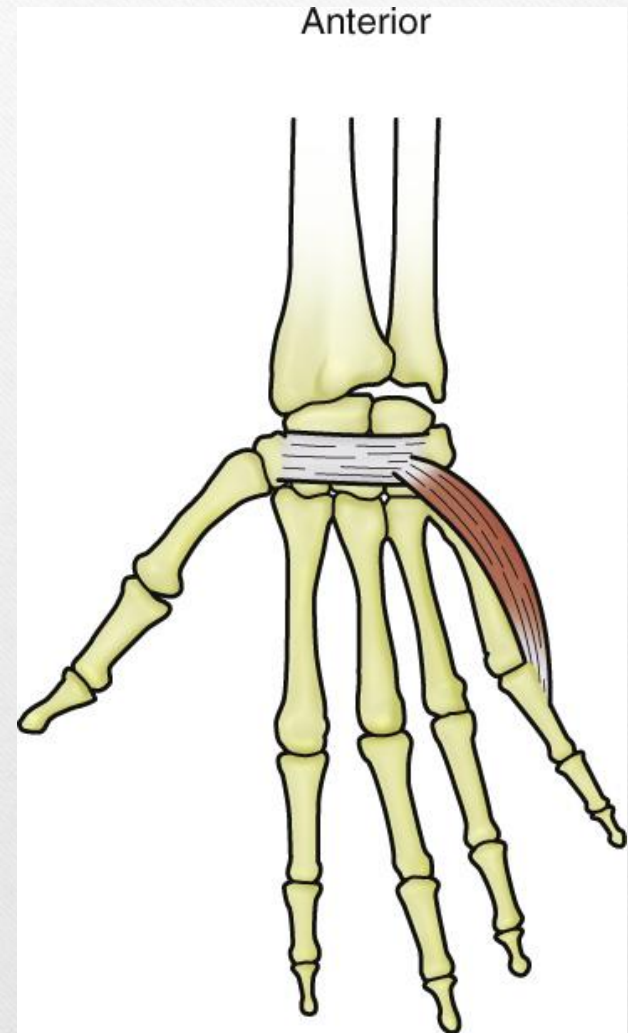


# Hypothenar Muscles II

## Flexor digiti minimi manus

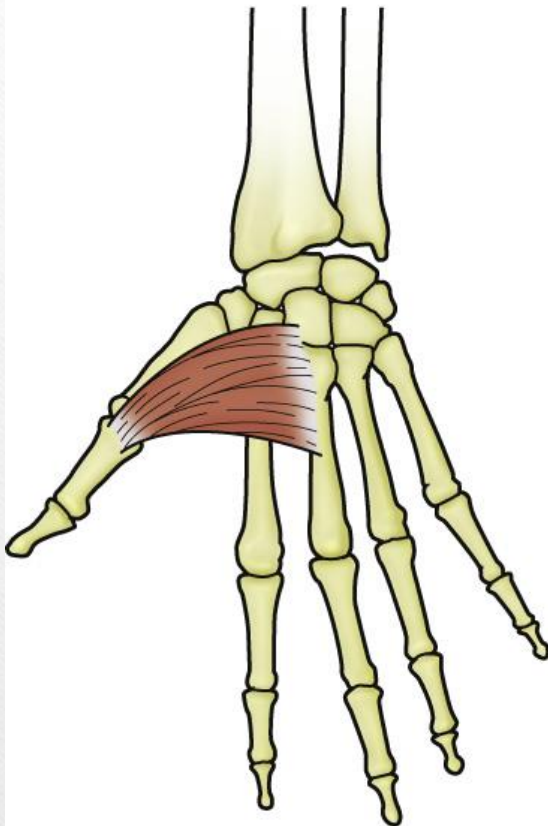
*What is the concentric function of the flexor digiti minimi manus?*

*Flexion of the little finger at the metacarpophalangeal joint.*



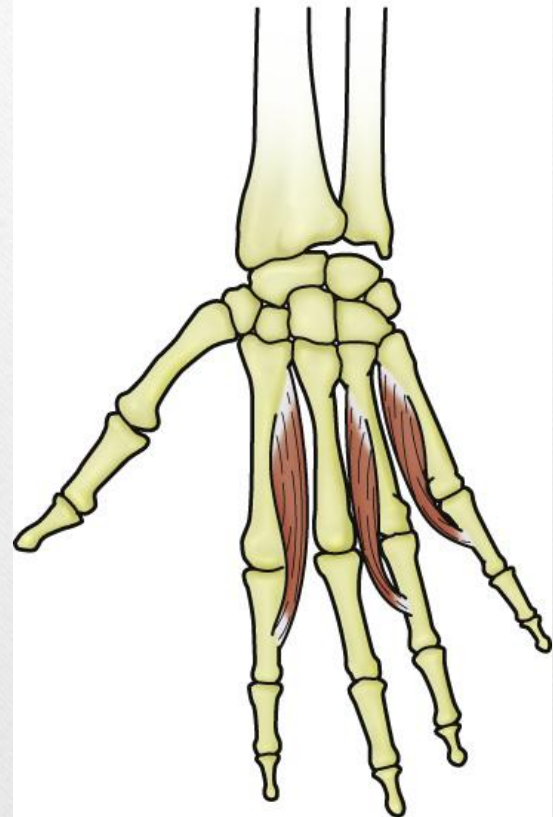
# Central Compartment Muscles I

Anterior



Adductor pollicis

Anterior



Interossei palmares



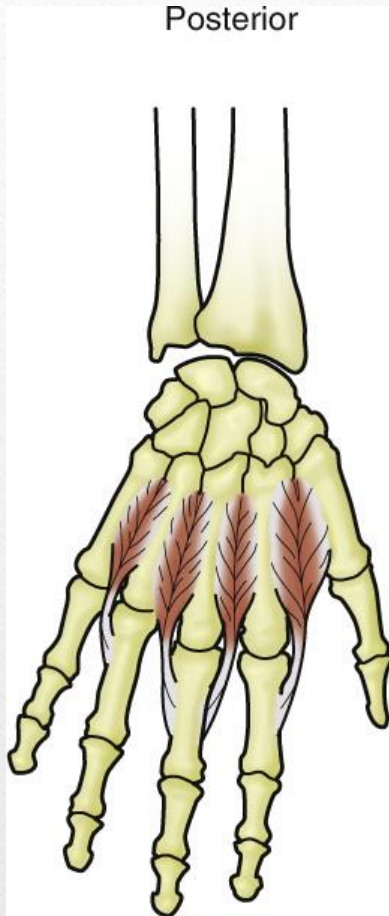
*What is the referred pain pattern of the adductor pollicis?*

*Into the associated finger, commonly associated with Heberden's nodes.*

*What is the isometric function of the interossei palmares?*

*It stabilizes fingers 2, 4, and 5.*

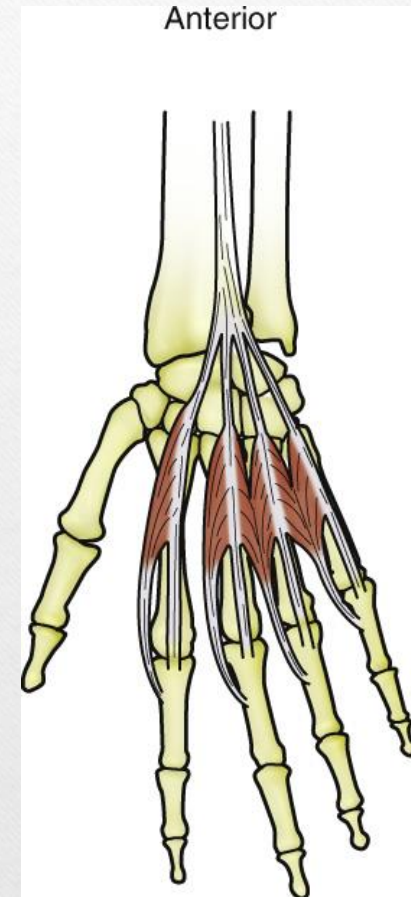
# Central Compartment Muscles II



Interossei dorsales manus

*In its isometric function,  
the interossei dorsales  
manus stabilizes fingers 2  
to 4.*

*Lumbricales means  
“earthworms.”*



Lumbricales manus



# To Test

Access Code: **P5PK**

*Please write down case sensitive code. You will be asked for it. This course is 6 CE.*

Once you have successfully passed the test (70% correct), please email us at [cehotschool@gmail.com](mailto:cehotschool@gmail.com). We will email you your CE certificate within 7 business days.