

ORIGIN AND INSERTION OF MUSCLES OF UPPER LIMB

BY FATIMA HAIDER

KGMC

1. TRAPEZIUS

ORIGIN – occipital bone

Ligamentum nuchae (C₁ to C₇)

Spinous process (T₁ to T₁₂)

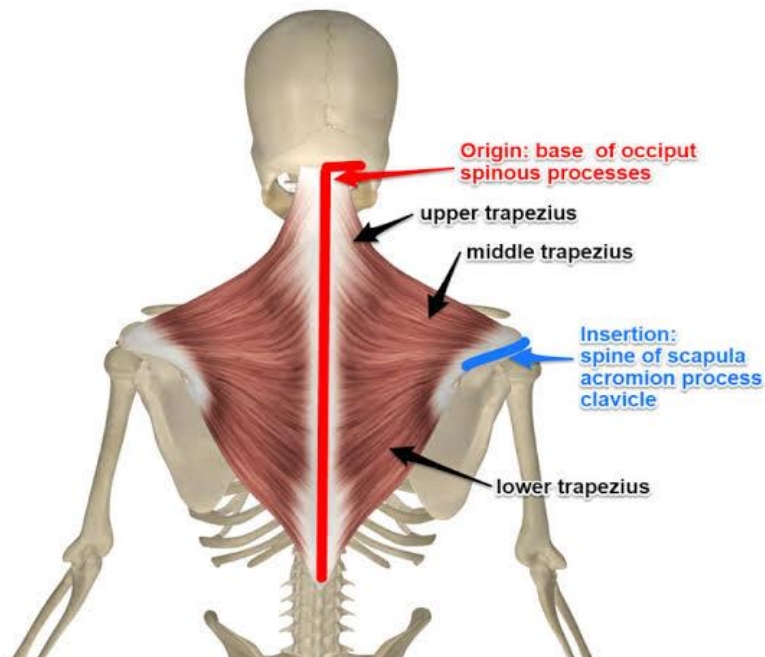
INSERTION – lateral third of clavicle

Acromion of scapula

Scapular spine of scapula

INNERVATION – motor spinal part of accessory nerve (XI)

Sensory anterior rami of C₃ and C₄



2. DELTOID

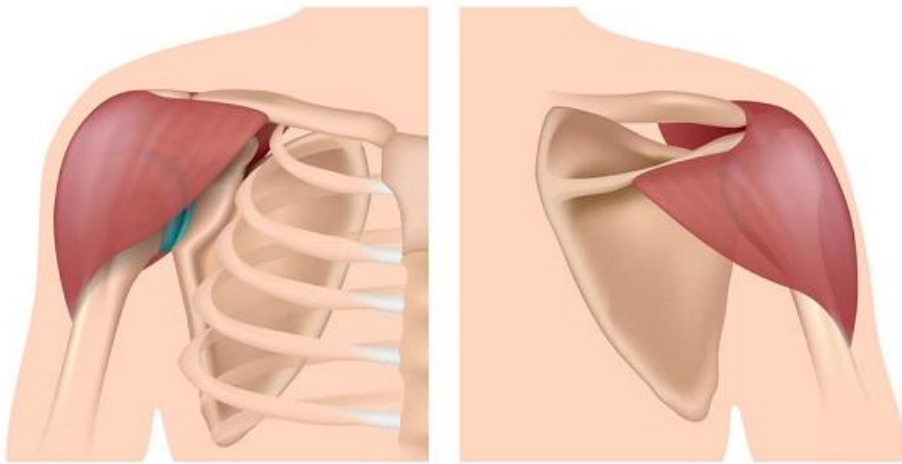
ORIGIN – lateral third of clavicle

Acromion and spine of scapula

INSERTION – deltoid tuberosity of humerus

INNERVATION – axillary nerve

Deltoid Muscle



Anterior view

Posterior view

3. LEVATOR SCAPULAE

ORIGIN – transverse process of C₁ to C₅ vertebrae

INSERTION – medial border and superior angle of scapula

INNERVATION – branches directly from anterior rami of C₃ and C₄ spinal nerves and by branches (C₅) from dorsal scapular nerve



4. RHOMBOID MINOR

ORIGIN – lower end of ligamentum nuchae
spines of C₈ and T₁

INSERTION – medial border of scapula

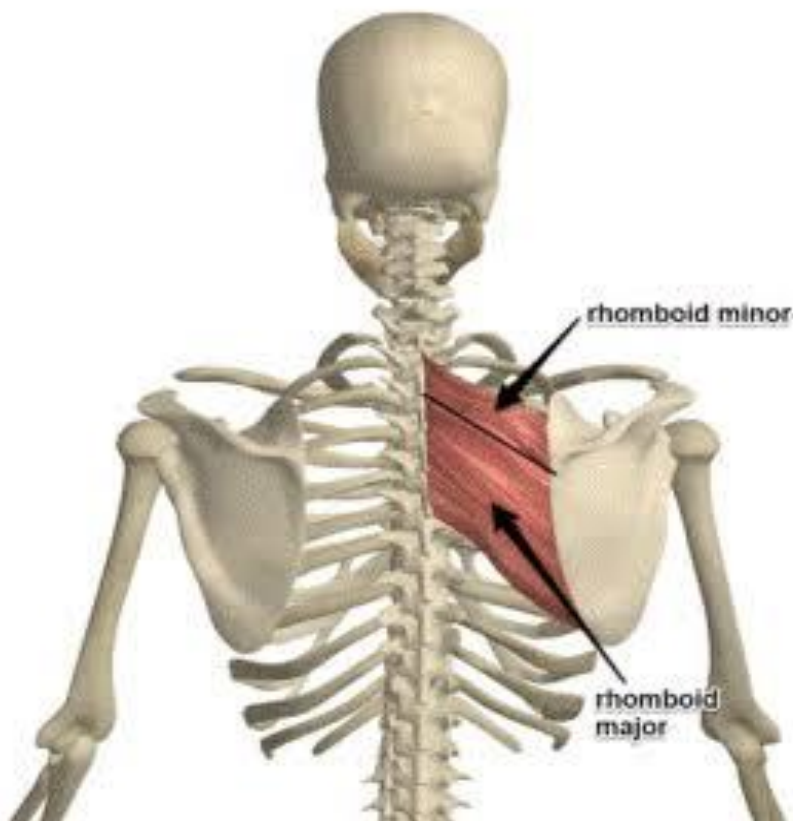
INNERVATION – dorsal scapular nerve (C₄, C₅)

5. RHOMBOID MAJOR

ORIGIN – spinous processes T₂-T₅

INSERTION – medial border of scapula down towards the inferior angle

INNERVATION - dorsal scapular nerve (C₄, C₅)

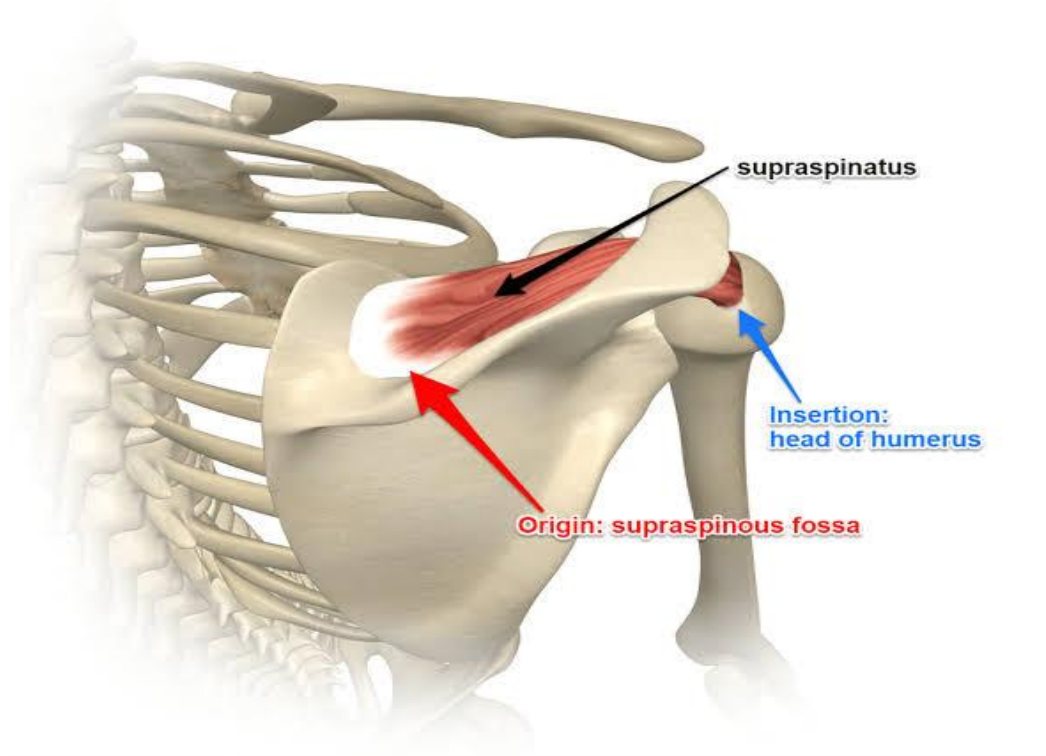


6. SUPRASPINATUS

ORIGIN – supraspinous fossa of scapula

INSERTION – superior facet of greater tubercle of humerus

INNERVATION – suprascapular nerve (C₅, C₆)

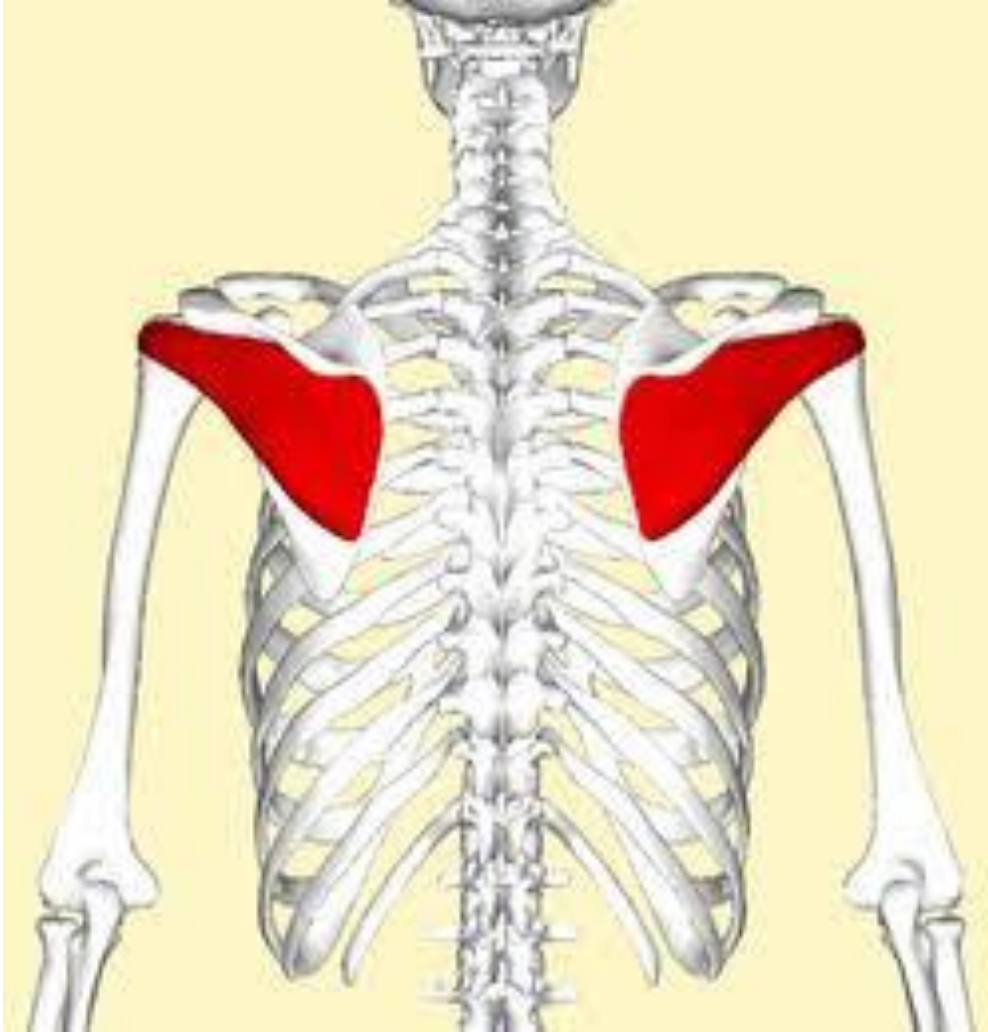


7. INFRASPINATUS

ORIGIN – infraspinous fossa of scapula

INSERTION - middle facet of greater tubercle of humerus

INNERVATION - suprascapular nerve (C₅, C₆)

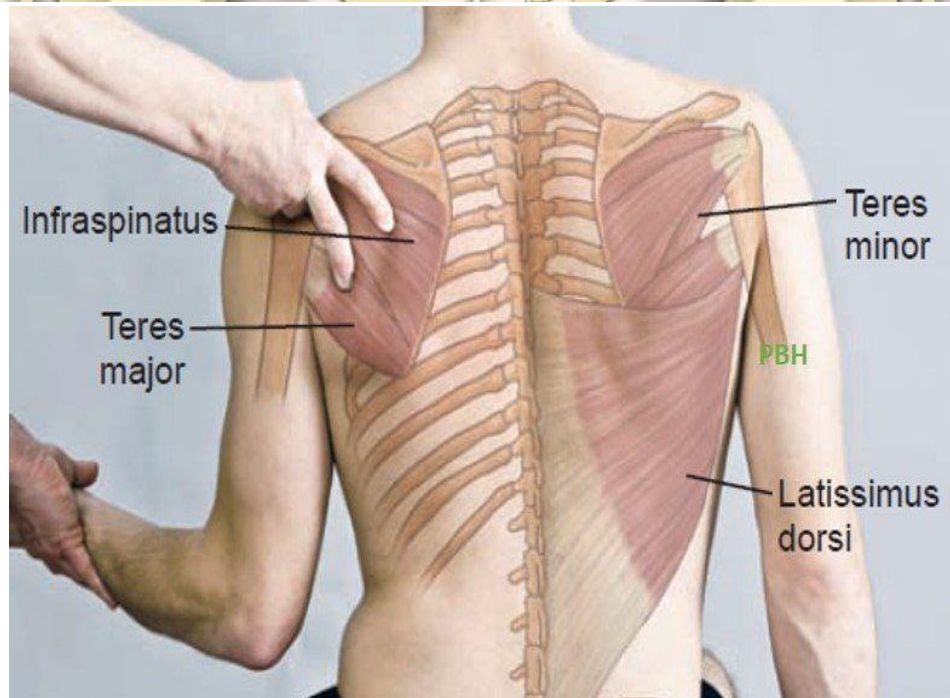
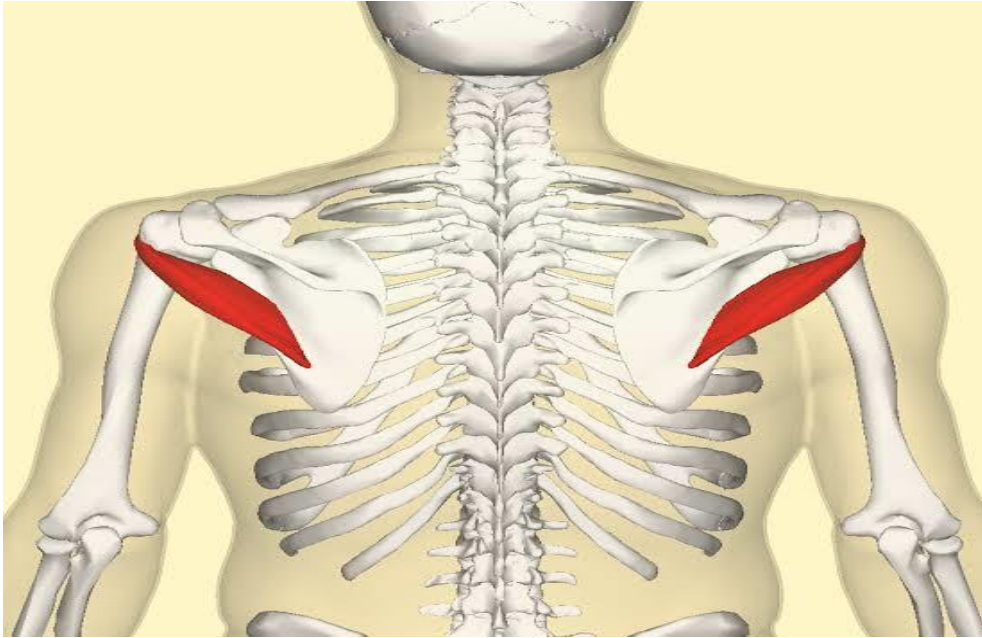


8. TERES MINOR

ORIGIN – upper two-thirds of lateral border of scapula

INSERTION – inferior facet of greater tubercle of humerus

INNERVATION – Axillary nerve (C₅, C₆)

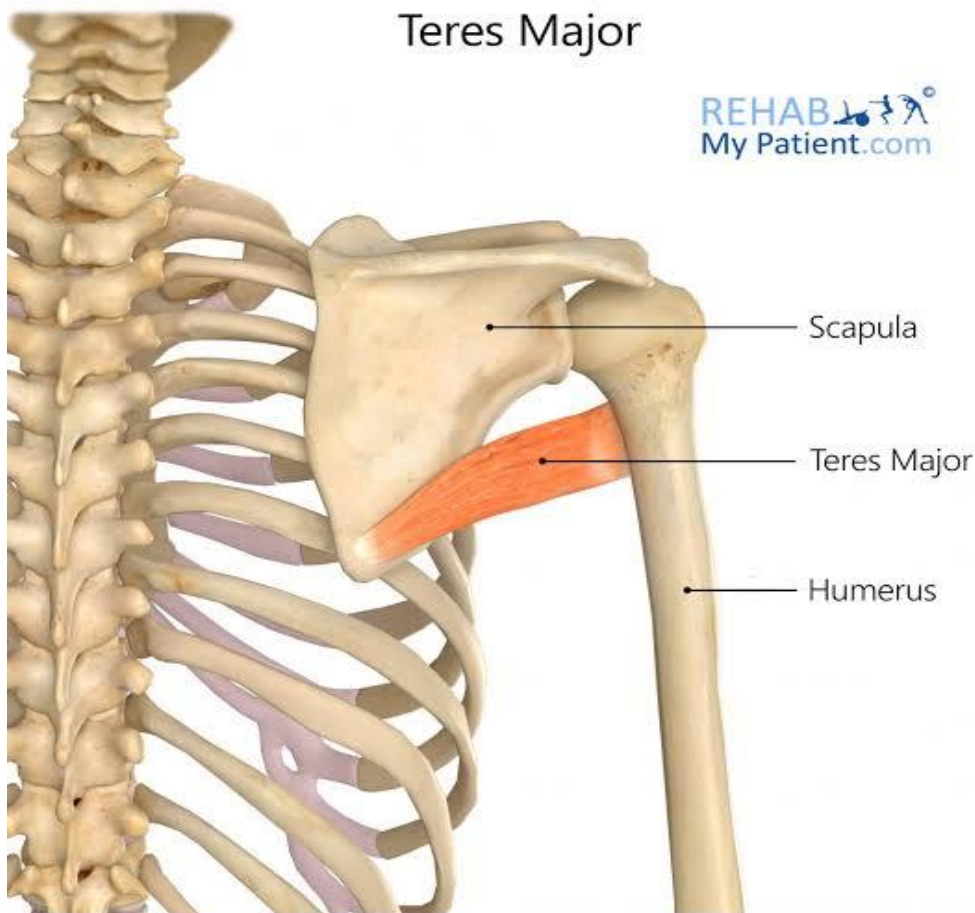


9. TERES MAJOR

ORIGIN – dorsal surface of inferior angle and lower part of lateral border of scapula

INSERTION – medial lip of intertubercular sulcus on anterior surface of humerus

INNERVATION – inferior subscapular nerve



10. TRICEPS BRACHII

Long Head Origin – infraglenoid tubercle of scapula

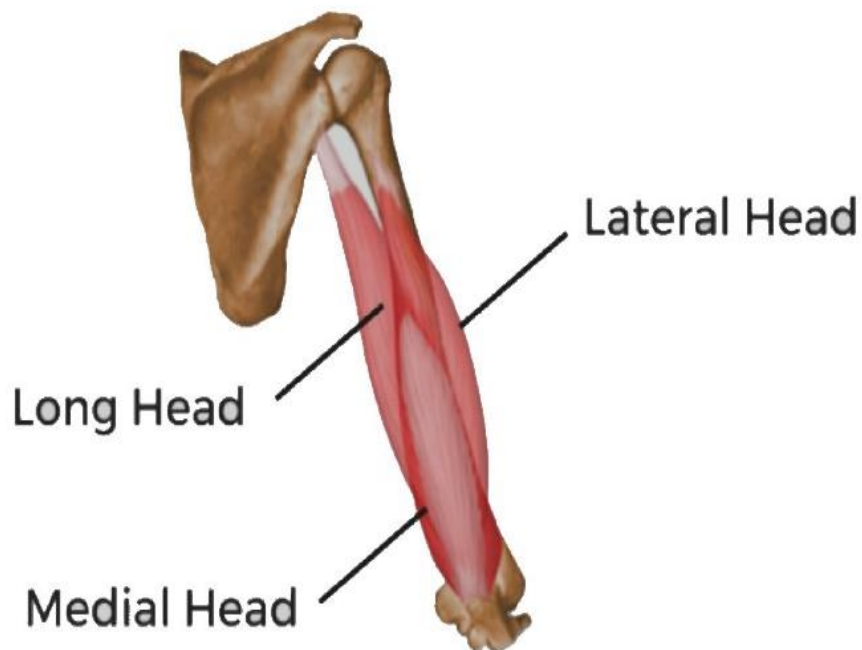
Lateral Head Origin – upper half of posterior surface of shaft of humerus (above the radial groove and from the medial intermuscular septum)

Medial Head Origin – lower half of posterior surface of shaft of humerus (below the radial groove and from the medial intermuscular septum)

Insertion – posterior surface of olecranon process of ulna, capsule of elbow joint and antebrachial fascia.

INNERVATION OF LONG HEAD– Radial nerve (C₆, C₇, C₈)

Triceps Brachii



11. PECTORALIS MAJOR (pecs)

Origin of Clavicular head – medial half of clavicle

Origin of sternocostal head – anterior surface of sternum

First seven costal cartilages

Sternal end of sixth rib

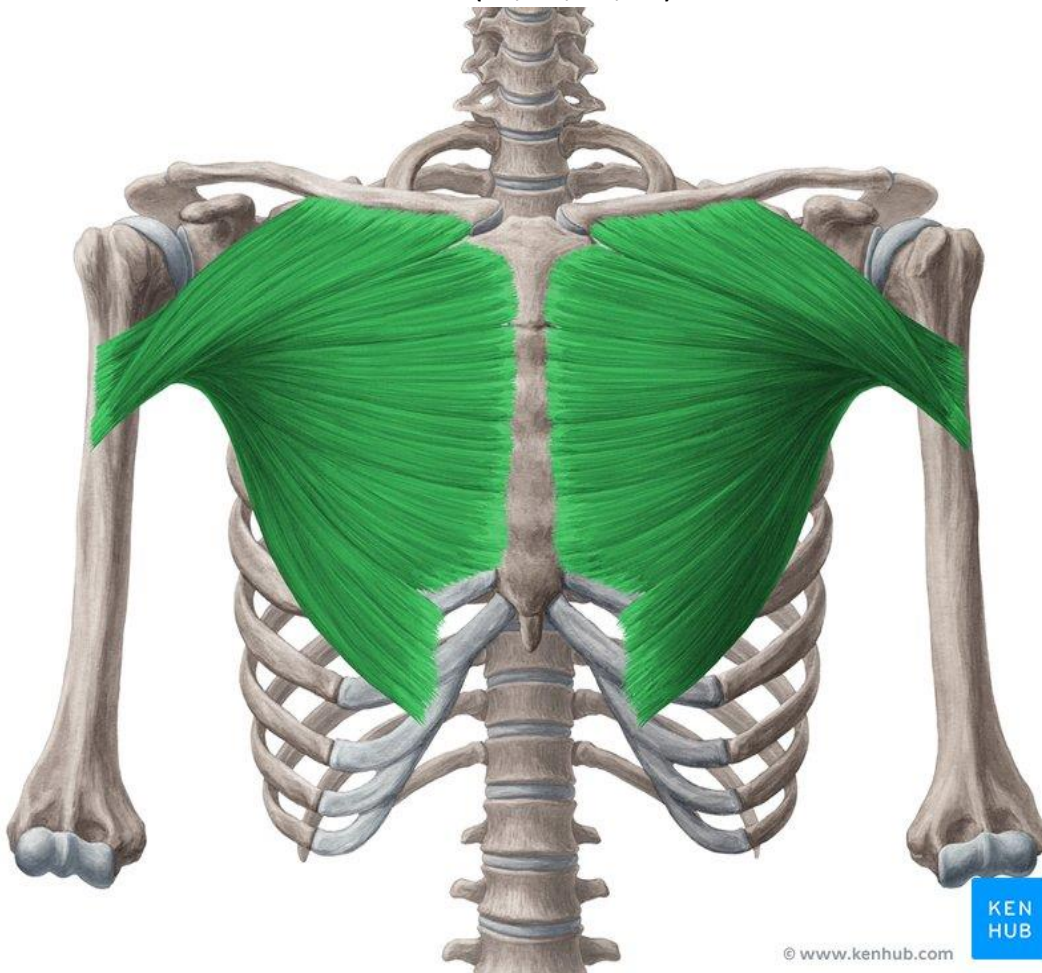
Aponeurosis of external oblique muscle

INSERTION – lateral lip of intertubercular sulcus of humerus

INNERVATION – medial and lateral pectoral nerves from brachial plexus

Clavicular head (C₅, C₆)

Sternocostal head (C₆, C₇, C₈, T₁)

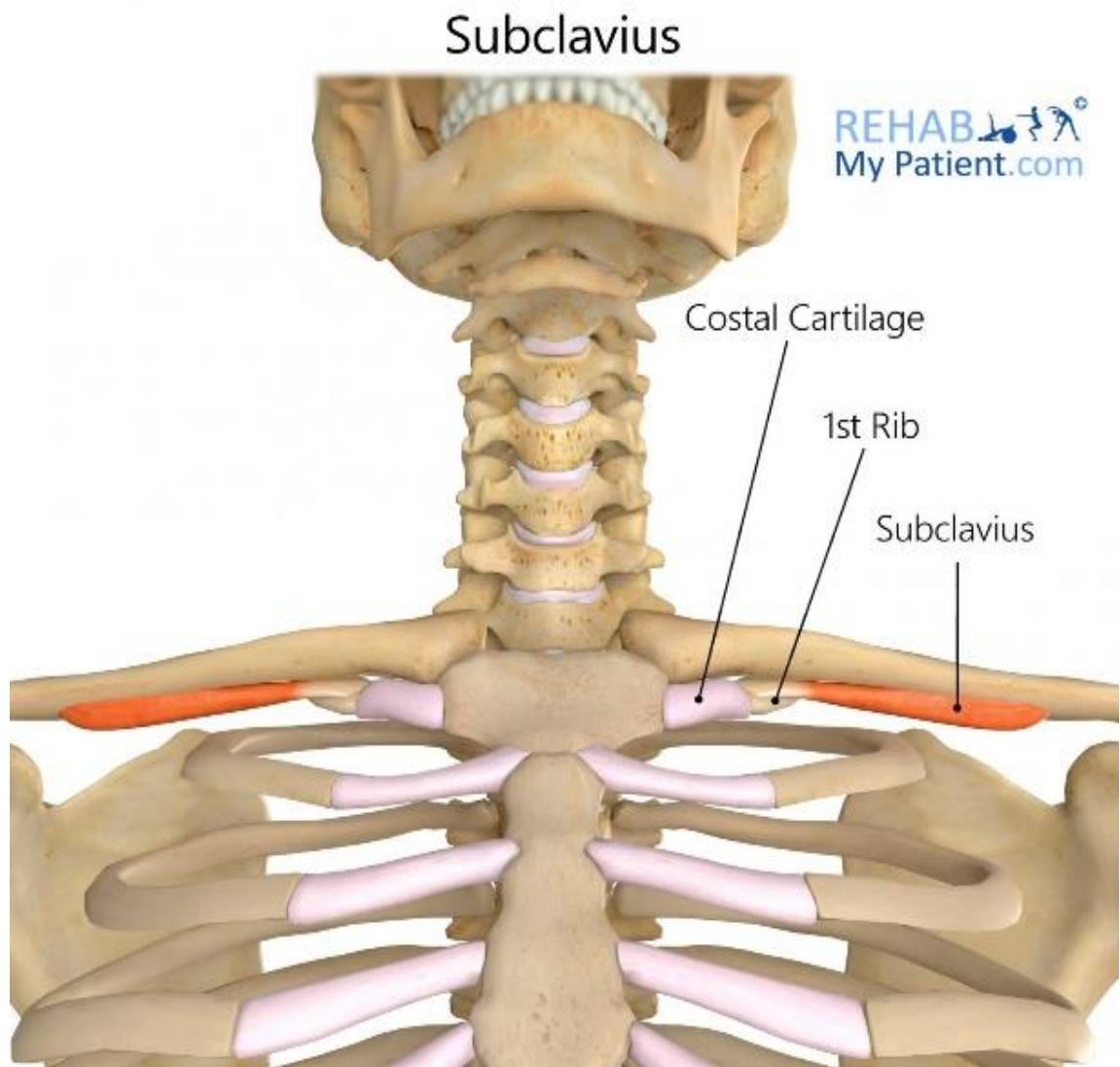


12. SUBCLAVIUS

ORIGIN – first rib at junction between rib and costal cartilage

INSERTION – groove on inferior surface of middle one-third of clavicle

INNERVATION – nerve to subclavius (C₅, C₆)



13. PECTORALIS MINOR

ORIGIN – 3rd to 5th rib

INSERTION – coracoid of scapula

INNERVATION – medial pectoral nerve (C₅, C₆, C₇, C₈, T₁)

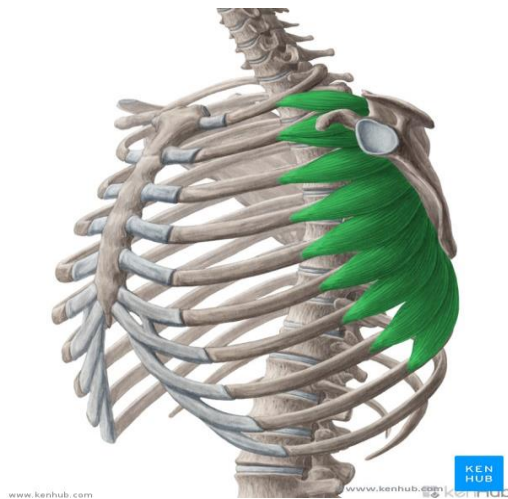
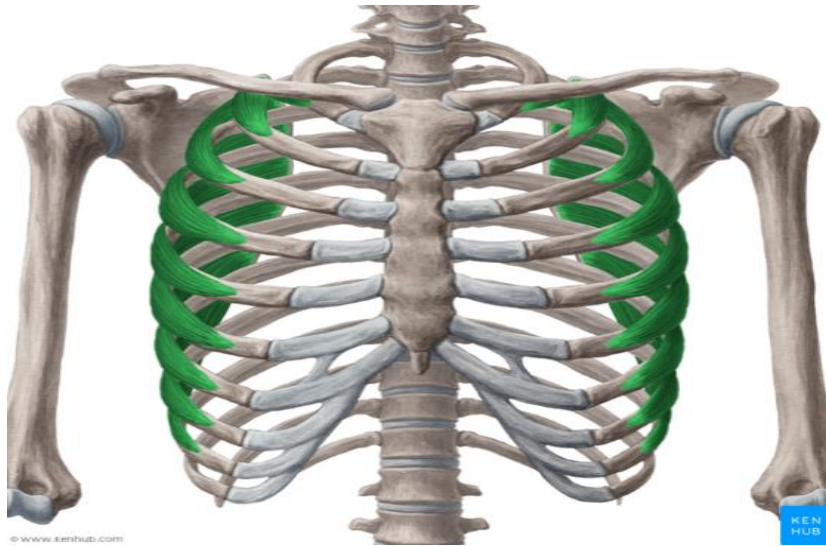


14. SERRATUS ANTERIOR

ORIGIN – lateral surfaces of upper 8-9 ribs and deep fascia overlying the related intercostal spaces

INSERTION – costal surface of medial border of scapula

INNERVATION – long thoracic nerve (C₅, C₆, C₇)



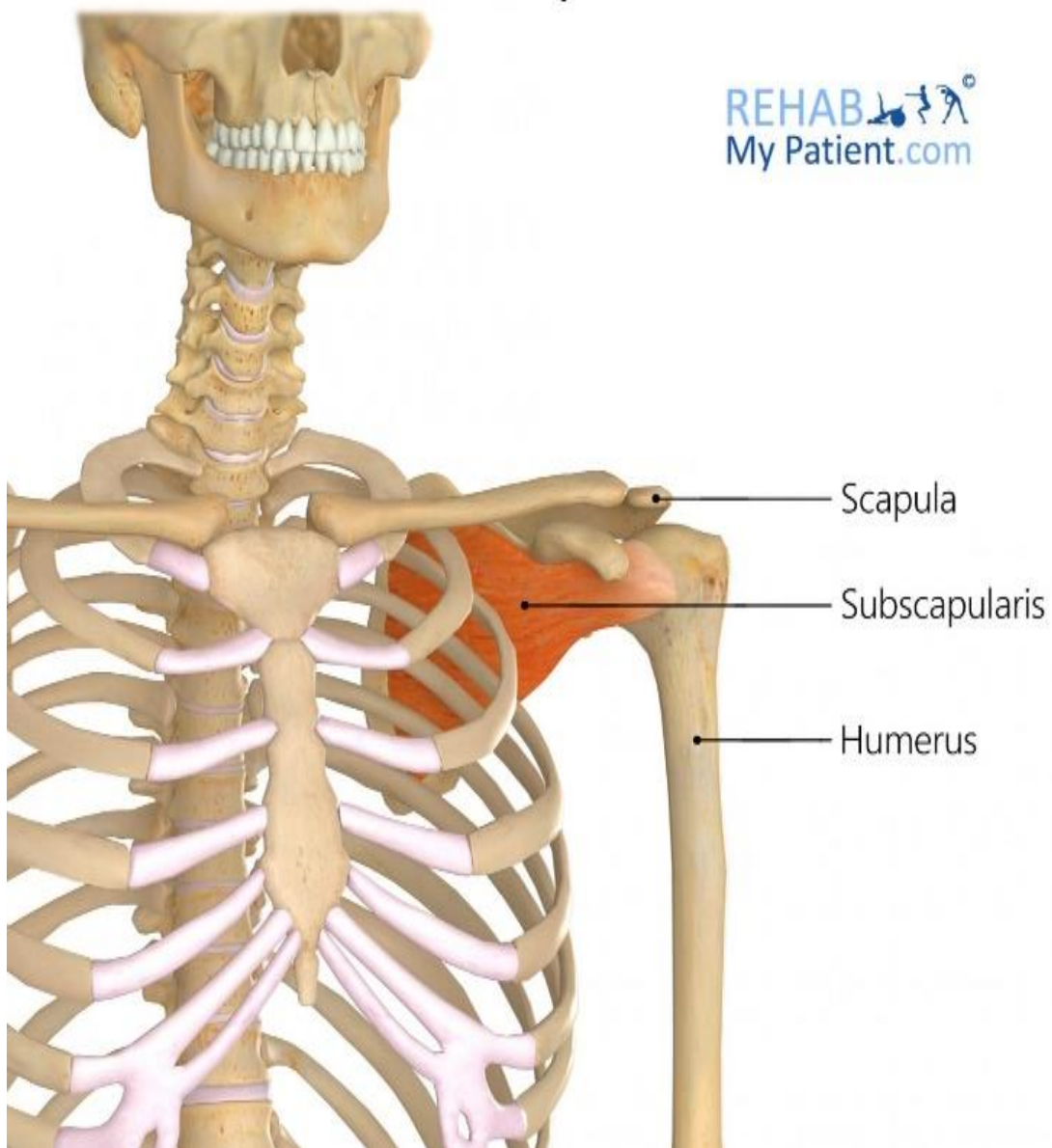
15. SUBSCAPULARIS

ORIGIN – subscapular fossa

INSERTION – lesser tubercle of humerus

INNERVATION – upper and lower subscapular nerves (C₅, C₆, C₇)

Subscapularis



16. LATISSIMUS DORSI

ORIGIN – spinous process of thoracic T₇-T₁₂

Thoracolumbar fascia

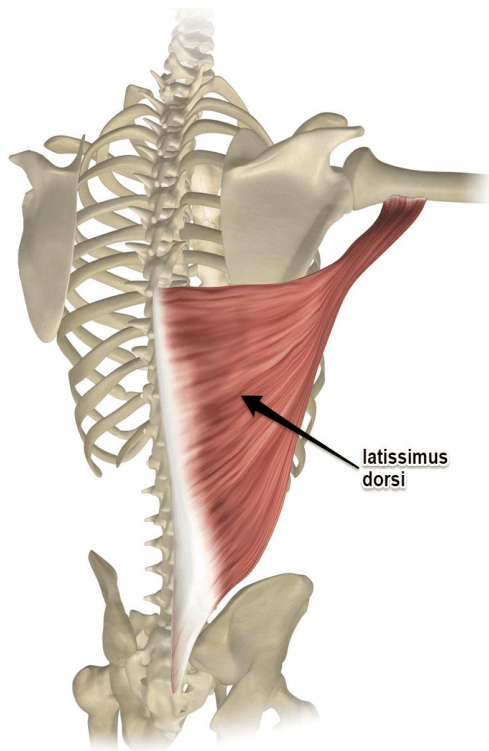
Iliac crest

Inferior 3 or 4 ribs

Inferior angle of scapula

INSERTION – floor of intertubercular sulcus of humerus

INNERVATION – thoracodorsal nerve (C₆, C₇, C₈)



17. **BICEPS BRACHII**

Long Head Origin – supraglenoid tubercle of scapula

Short Head Origin – apex of coracoid process

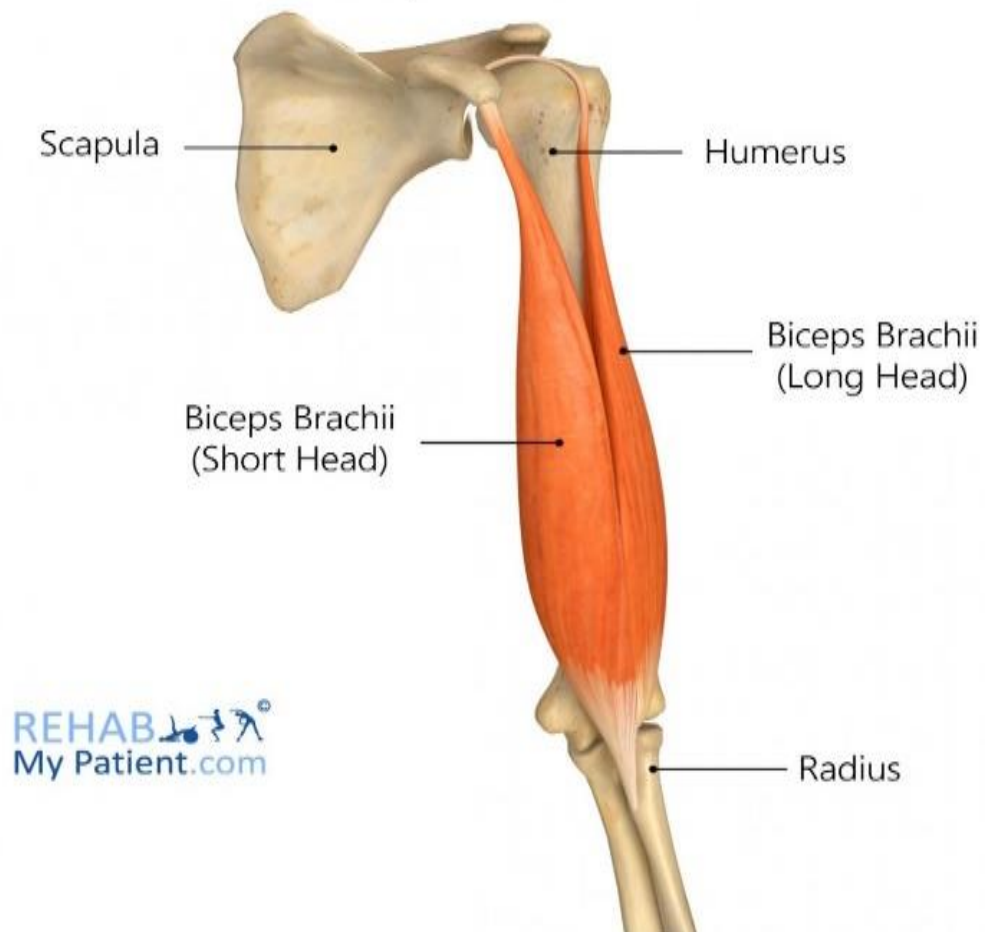
Insertion – tuberosity of radius

INNERVATION OF LONG HEAD – radial nerve (C₆, C₇, C₈)

Musculocutaneous nerve (C₅, C₆)

INNERVATION OF SHORT HEAD – musculocutaneous nerve (C₅, C₆)

Biceps Brachii

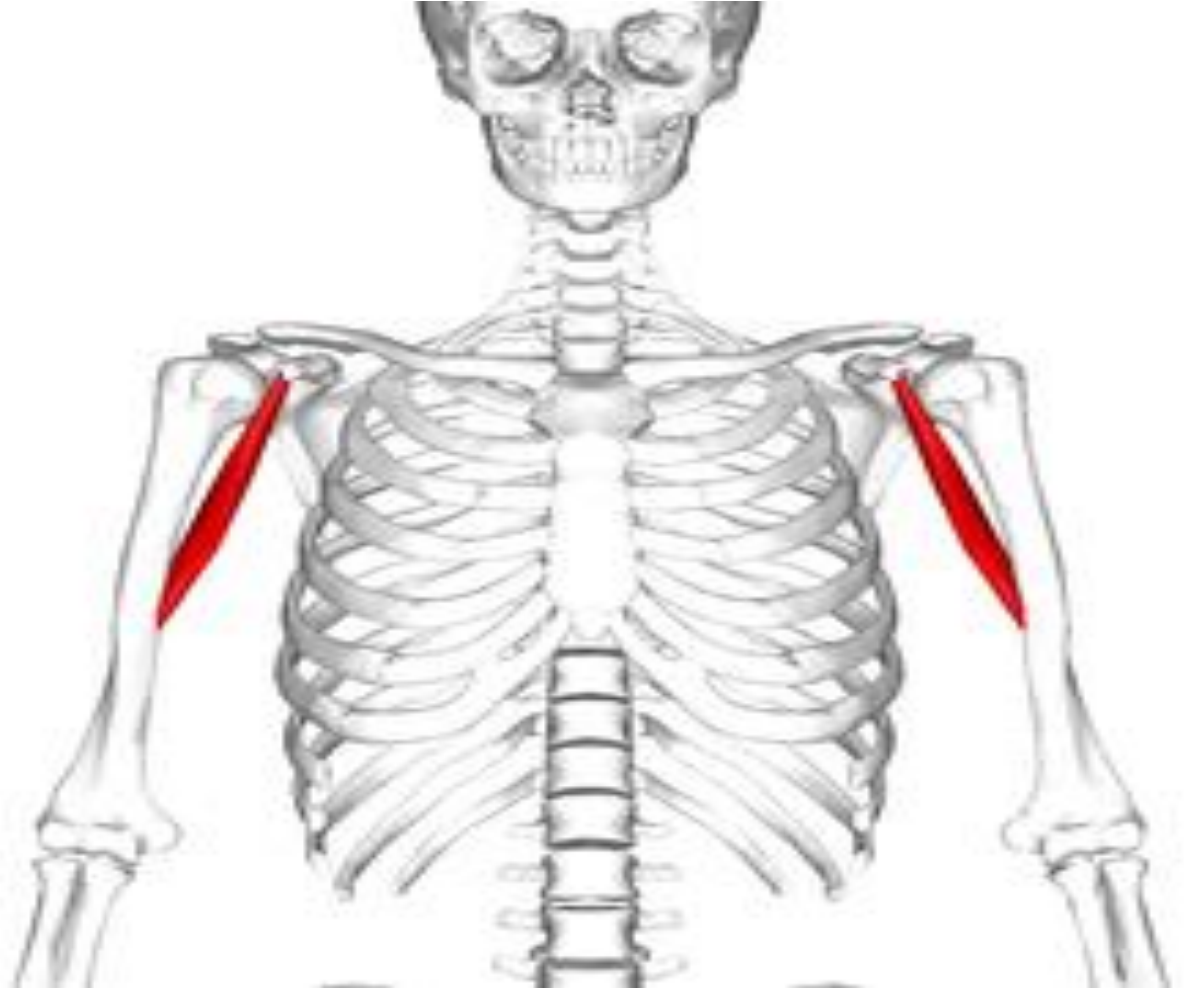


18. CORACOBRACHIALIS

ORIGIN – apex of coracoid process of scapula

INSERTION – linear roughening on midshaft of humerus on medial side

INNERVATION – musculocutaneous nerve (C₅, C₆, C₇)



19. BRACHIALIS

ORIGIN – distal half of anterior aspect of humerus (medial and lateral surfaces) and adjacent intermuscular septa

INSERTION – tuberosity of ulna

INNERVATION – musculocutaneous nerve (C₅, C₆)

Small contribution by the radial nerve (C₇) to lateral part of muscle



20. SUPINATOR

ORIGIN – supinator crest of ulna

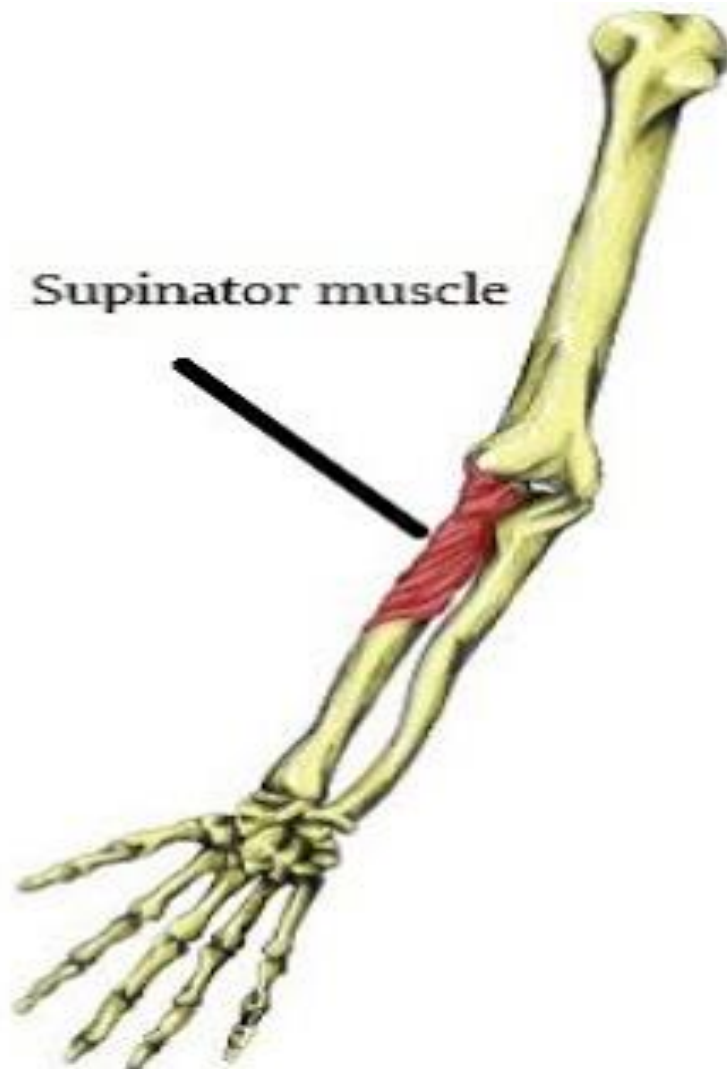
Lateral epicondyle of humerus

Radial collateral ligament

Annular radial ligament

INSERTION – lateral edge of radial tuberosity and oblique line of radius

INNERVATION – Posterior interosseous nerve (C₆, C₇)



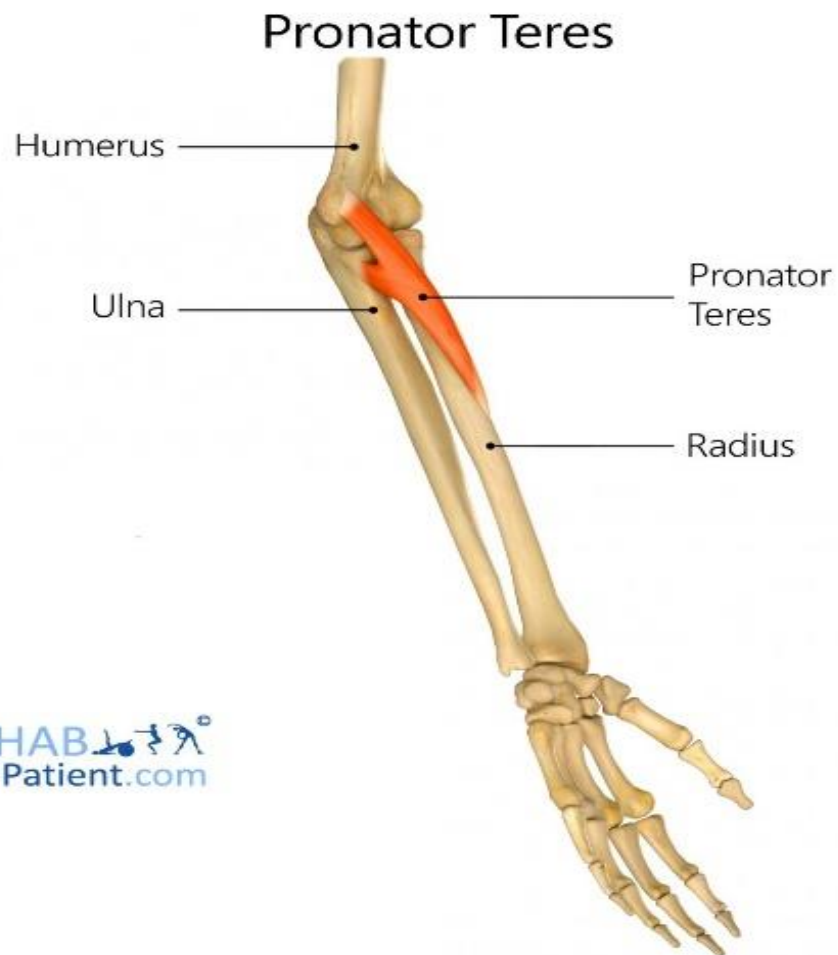
21. PRONATOR TERES

ORIGIN OF HUMERAL HEAD – medial epicondyle and supracondylar ridge of humerus

ORIGIN OF ULNAR HEAD – coronoid process of ulna

INSERTION – middle of lateral surface of shaft of radius

INNERVATION – Median nerve

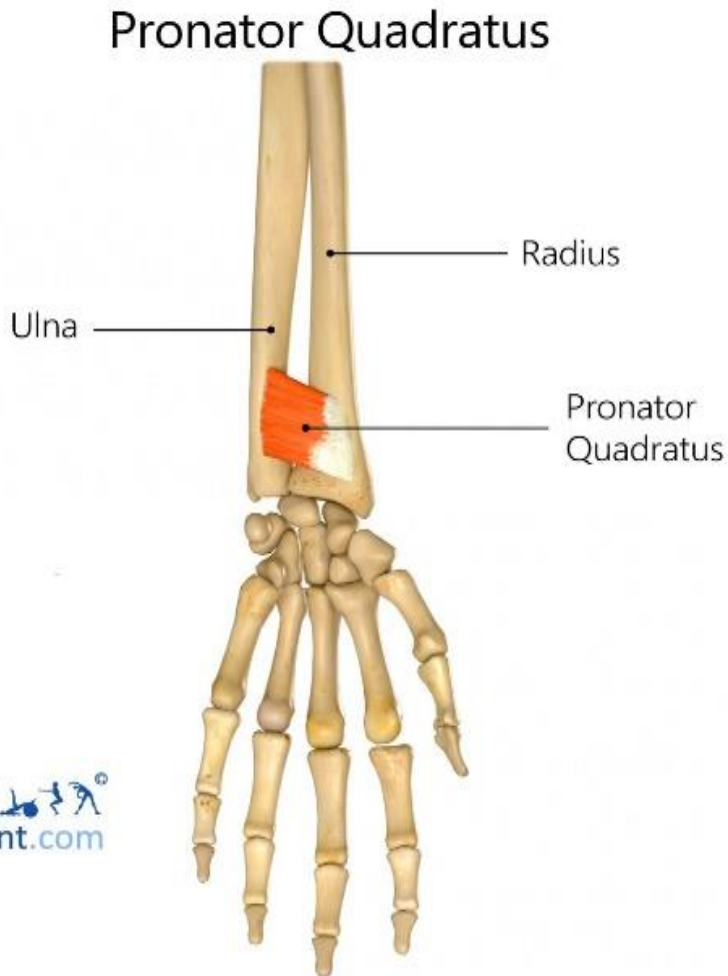


22. PRONATOR QUADRATUS

ORIGIN – linear ridge on anterior surface of lower end of ulna

INSERTION – lateral, anterior surface of radius

INNERVATION – median nerve (anterior interosseous nerve) [C₇, C₈]



23. ANCONEUS

ORIGIN – lateral epicondyle of humerus

INSERTION – lateral surface of olecranon process of ulna

INNERVATION – Radial nerve (via branch to medial head of triceps brachii)



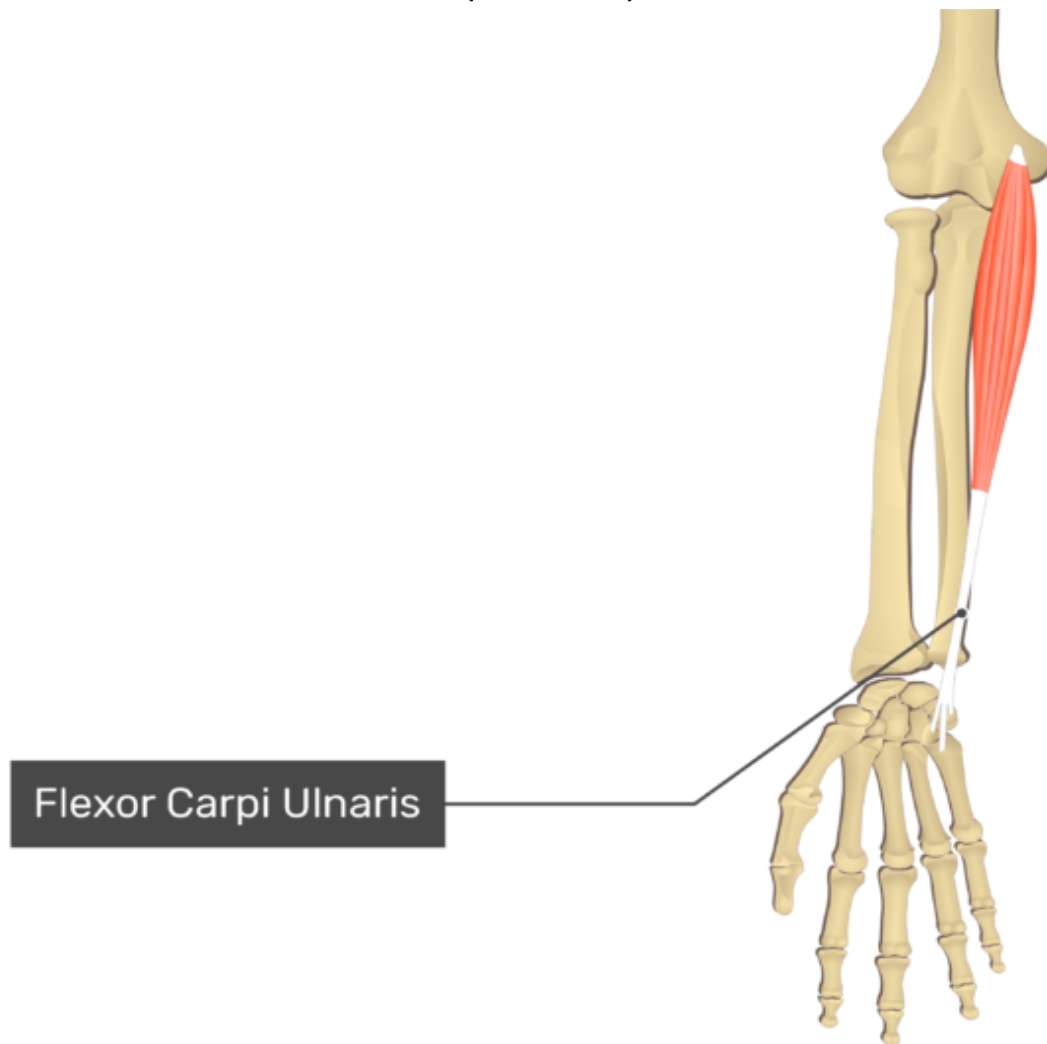
24. FLEXOR CARPI ULNARIS

ORIGIN OF HUMERAL HEAD – medial epicondyle of humerus

ORIGIN OF ULNAR HEAD – olecranon and posterior border of ulna

INSERTION – pisiform bone, and then via pisohamate and pisometacarpal ligaments into the hamate and base of metacarpal V.

INNERVATION – ulnar nerve (C₇, C₈, T₁)

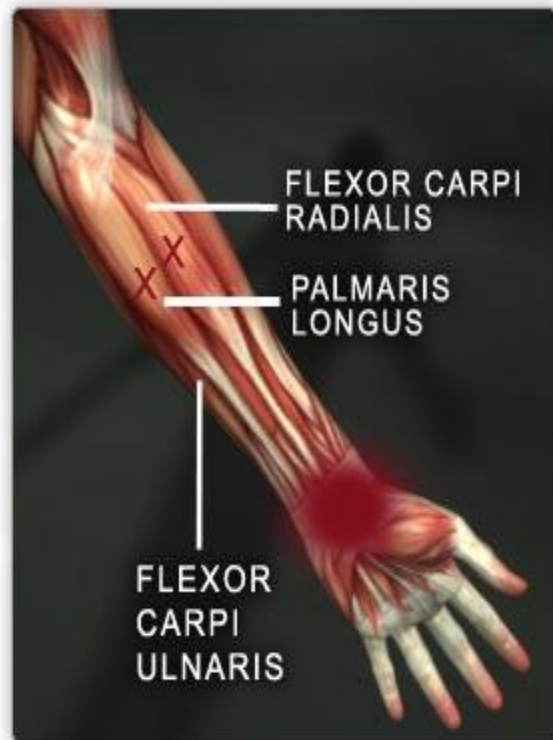
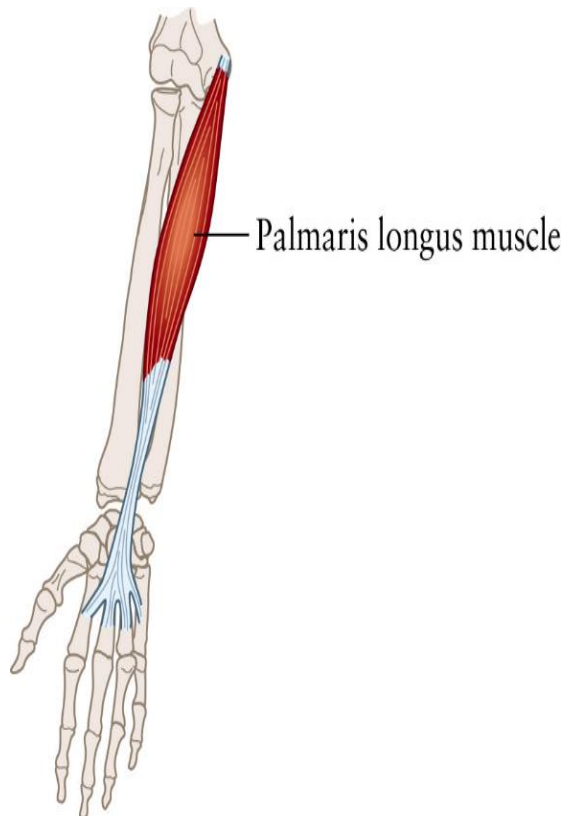


25. PALMARIS LONGUS

ORIGIN – medial epicondyle of humerus

INSERTION – flexor retinaculum
palmar aponeurosis of hand

INNERVATION – median nerve (C₇, C₈)

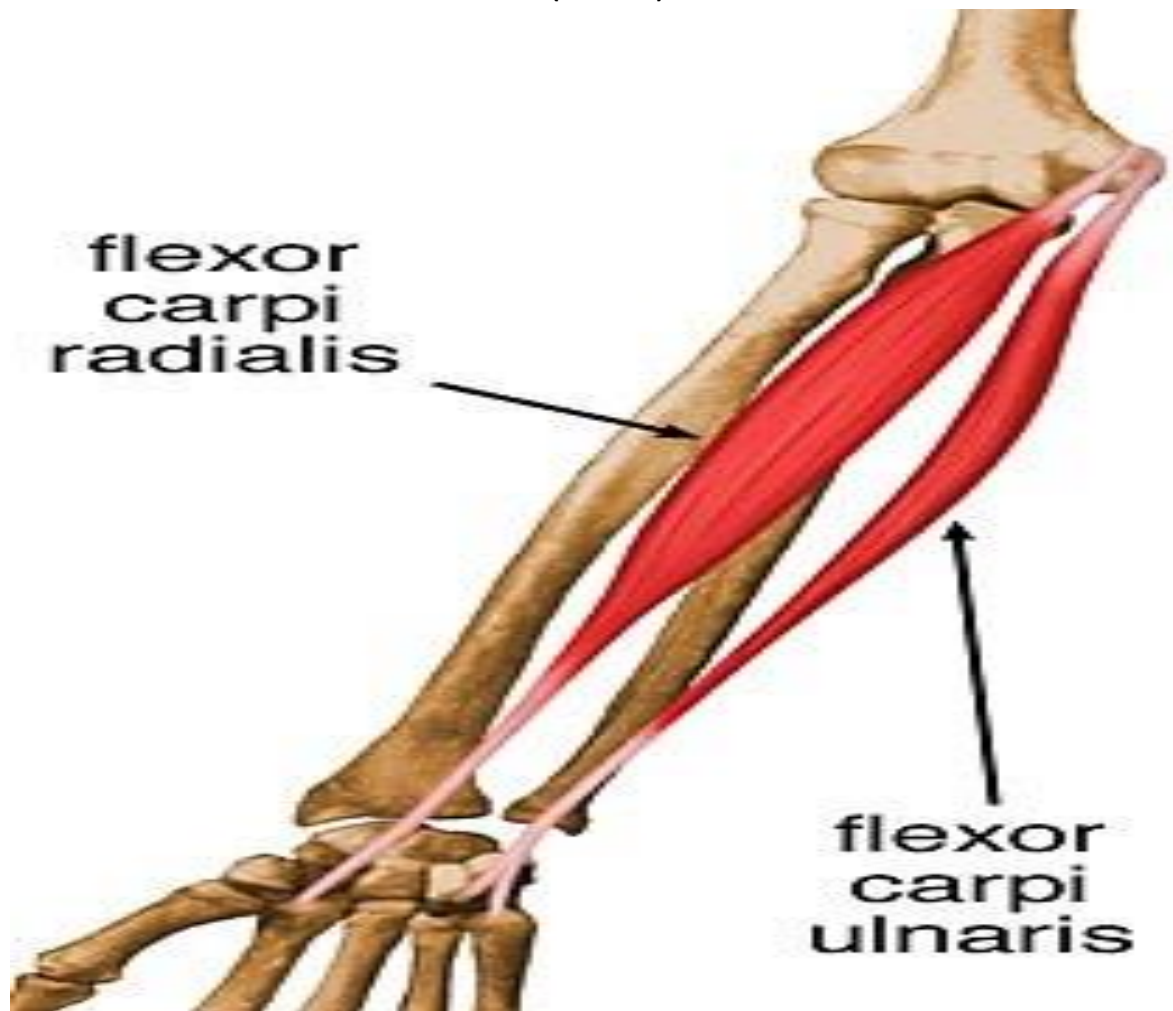


26. FLEXOR CARPI RADIALIS

ORIGIN – medial epicondyle of humerus

INSERTION – base of metacarpals II and III

INNERVATION – Median nerve (C₆, C₇)



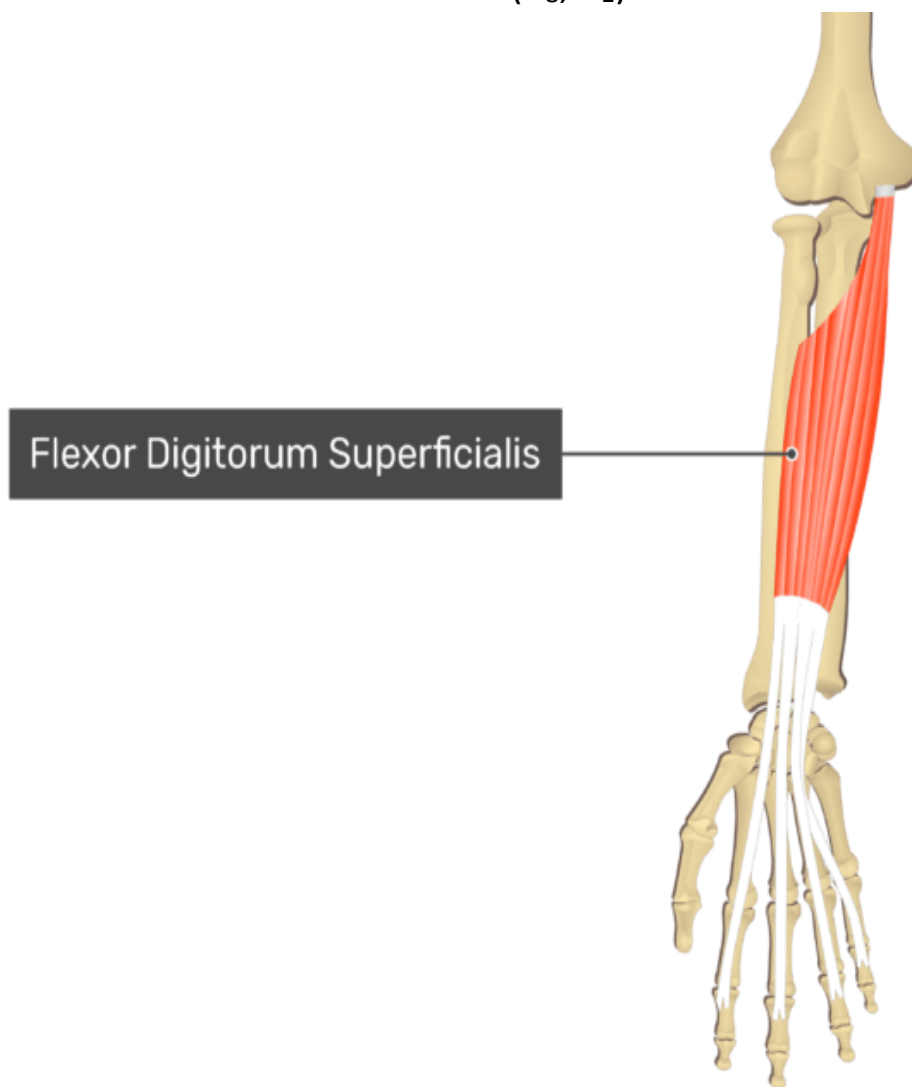
27. FLEXOR DIGITORUM SUPERFICIALIS

ORIGIN OF HUMERO-ULNAR HEAD – medial epicondyle of humerus and adjacent margin of coronoid process

ORIGIN OF RADIAL HEAD – oblique line on anterior surface of shaft of radius

INSERTION – four tendons, which attach to the palmar surfaces of the middle phalanges of the index, middle, ring, and little fingers

INNERVATION – Median nerve (C₈, T₁)





**Flexor Digitorum
Profundus Tendon**
- inserted into the distal phalanx.

**Flexor Digitorum
Superficialis Tendon**
- inserted into the middle phalanx.

28. FLEXOR DIGITORUM PROFUNDUS

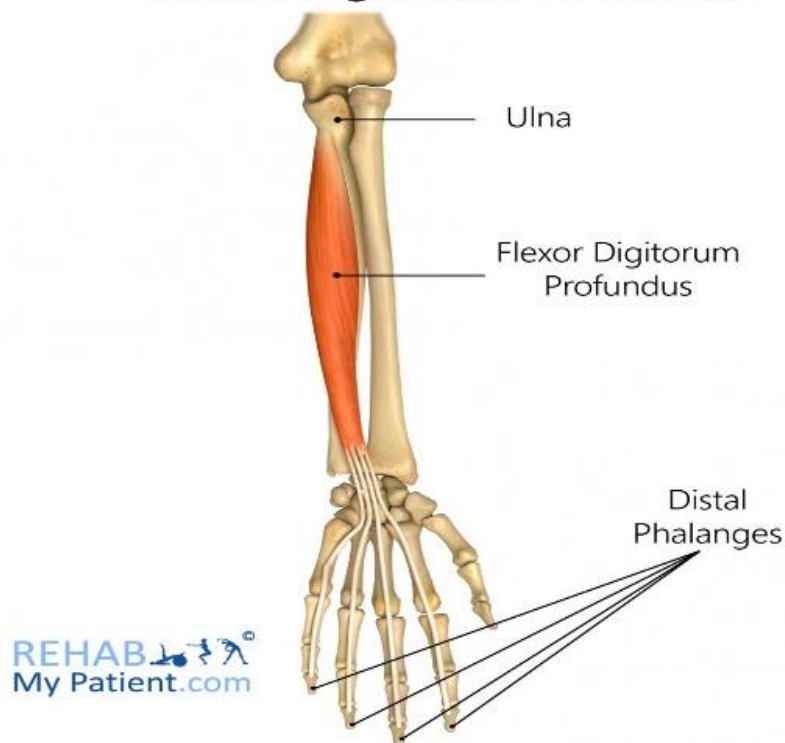
ORIGIN – anterior and medial surfaces of ulna

Anteromedial half of interosseous membrane

INSERTION – four tendons, which attach to palmar surface of distal phalanges of the index, middle, ring, and little fingers

INNERVATION – lateral half by median nerve; medial half by ulnar nerve (C₈, T₁)

Flexor Digitorum Profundus



29. FLEXOR POLLICIS LONGUS

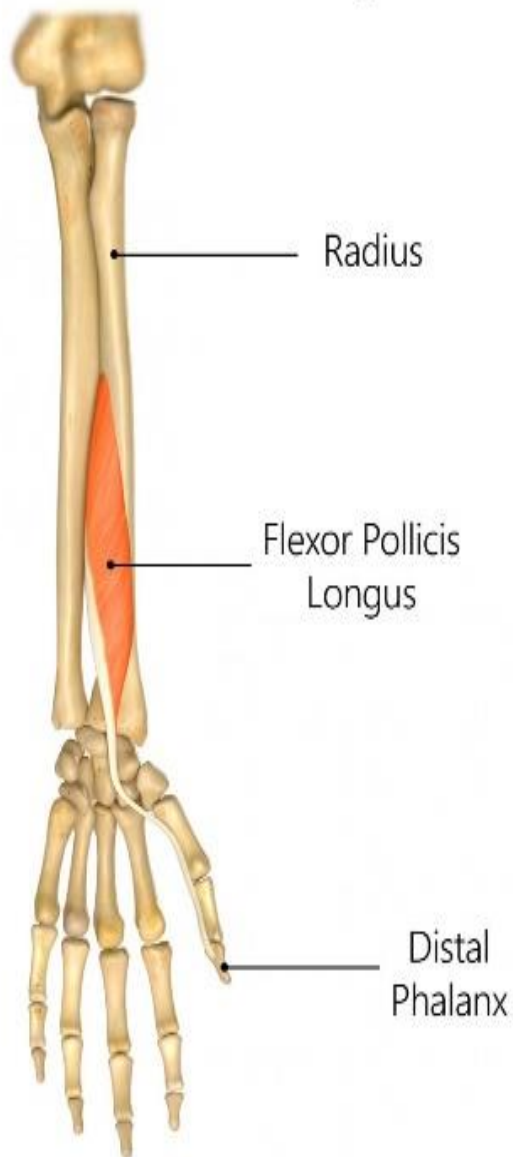
ORIGIN – anterior surface of radius and radial half of interosseous membrane

INSERTION – palmar surface of base of distal phalanx of thumb

INNERVATION – median nerve (anterior interosseous nerve) [C₇, C₈]

Flexor Pollicis Longus

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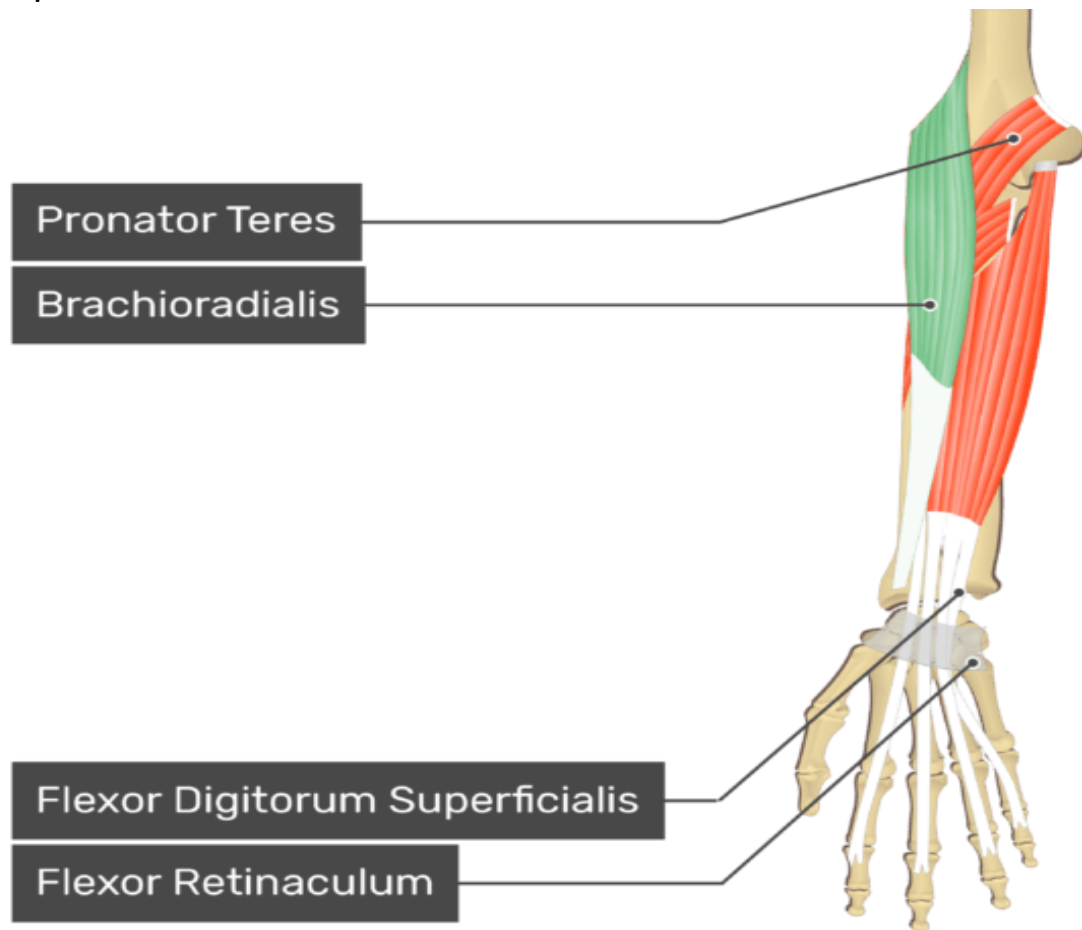


30. BRACHIORADIALIS

ORIGIN – Proximal part of lateral supraepicondylar ridge of humerus and adjacent intermuscular septum

INSERTION – lateral surface of distal end of radius

INNERVATION – radial nerve before division into superficial and deep branches



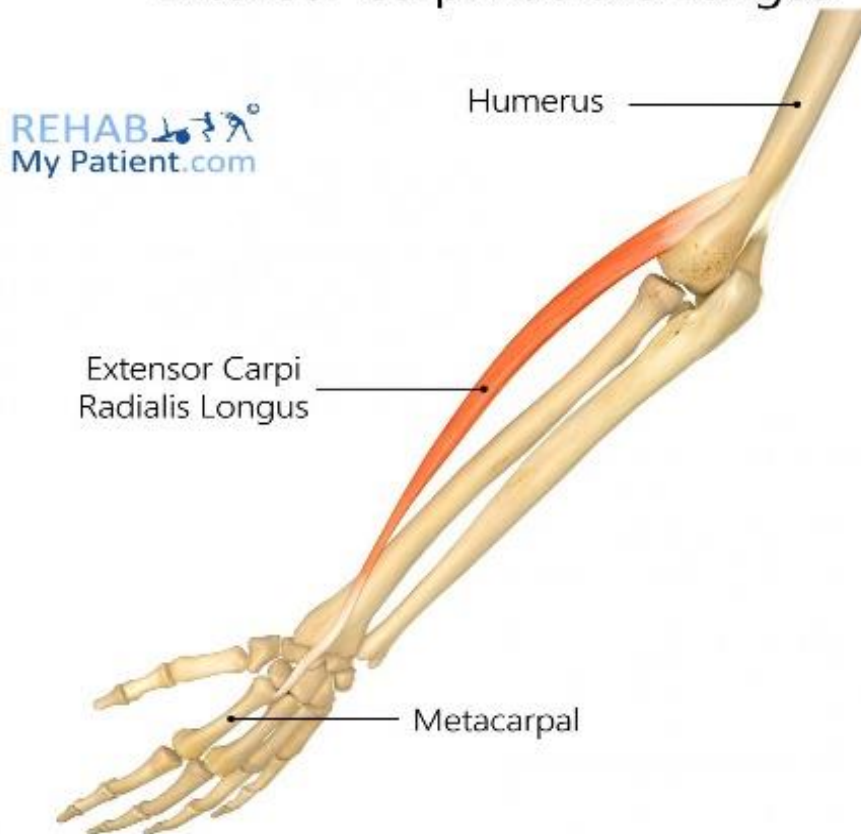
31. EXTENSOR CARPI RADIALIS LONGUS

ORIGIN – distal part of lateral supraepicondylar ridge of humerus and adjacent intermuscular septum

INSERTION – dorsal surface of base of metacarpal II

INNERVATION – radial nerve (C₆, C₇) before division into superficial and deep branches

Extensor Carpi Radialis Longus



32. EXTENSOR CARPI RADIALIS BREVIS

ORIGIN – lateral epicondyle of humerus and adjacent intermuscular septum

INSERTION – dorsal surface of base of metacarpals II and III

INNERVATION - deep branch of radial nerve (C₇, C₈) before penetrating supinator muscle

Extensor Carpi Radialis Brevis

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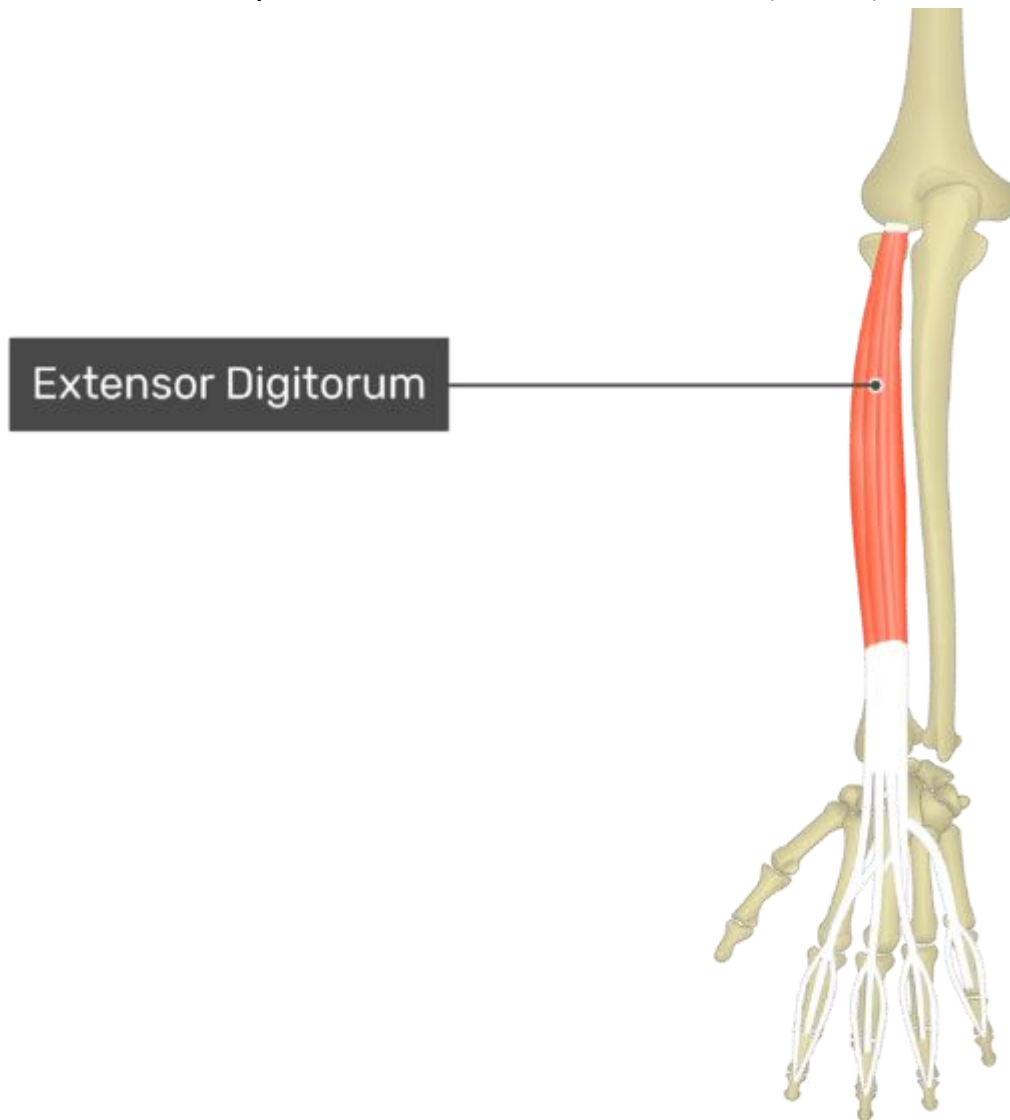


33. EXTENSOR DIGITORUM

ORIGIN – lateral epicondyle of humerus and adjacent intermuscular septum and deep fascia

INSERTION – four tendons, which insert via extensor hoods into the dorsal aspect of the bases of the middle and distal phalanges of the index, middle, ring, and little fingers

INNERVATION – posterior interosseous nerve (C₇, C₈)



34. EXTENSOR DIGITI MINIMI

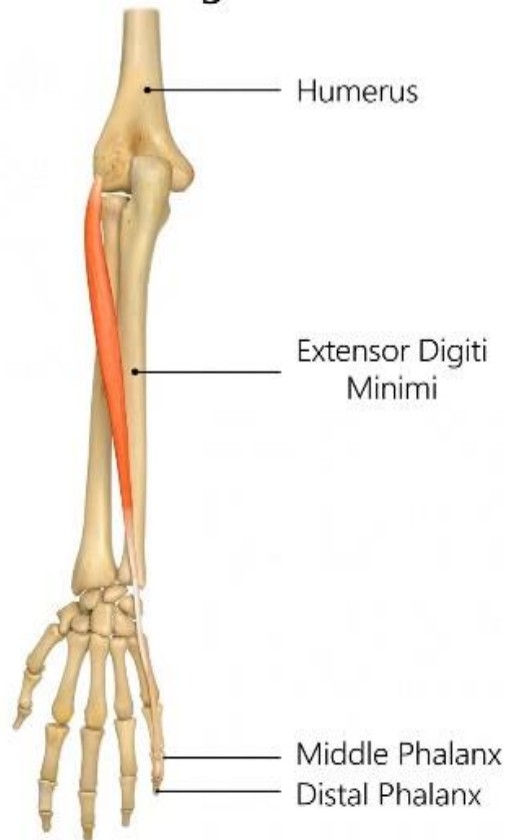
ORIGIN – lateral epicondyle of humerus and adjacent intermuscular septum together with extensor digitorum

INSERTION – extensor hood of little finger

INNERVATION – posterior interosseous nerve (C₇, C₈)

Extensor Digiti Minimi

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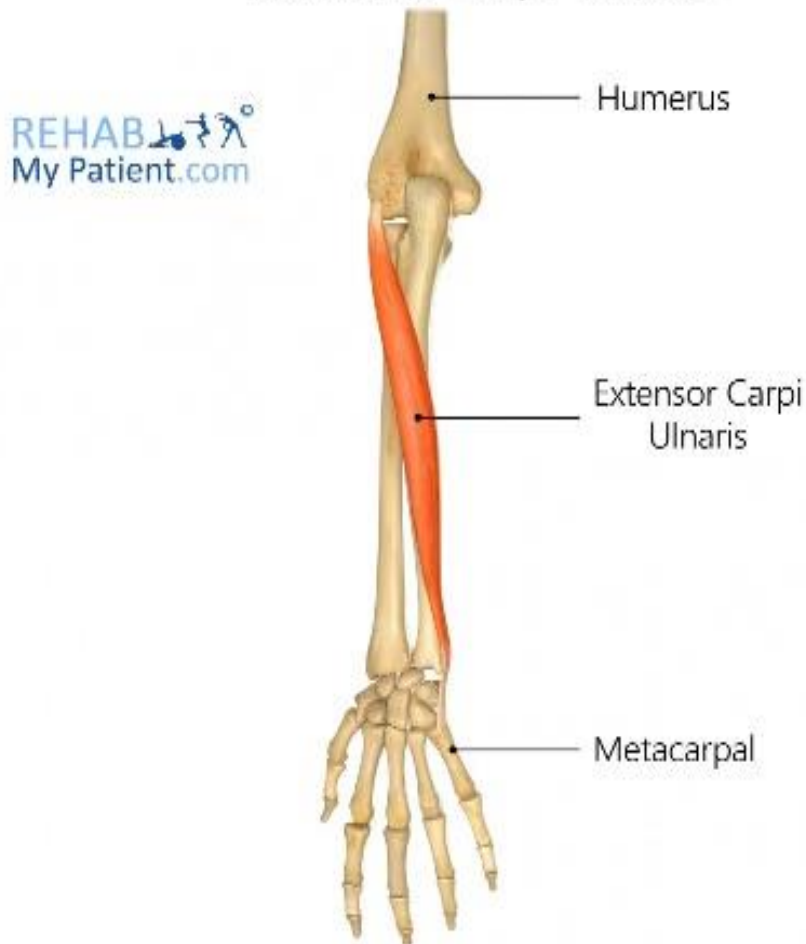
35. EXTENSOR CARPI ULNARIS

ORIGIN – lateral epicondyle of humerus and posterior border of ulna

INSERTION – tubercle on the base of the medial side of metacarpal

INNERVATION – posterior interosseous nerve (C₇, C₈)

Extensor Carpi Ulnaris

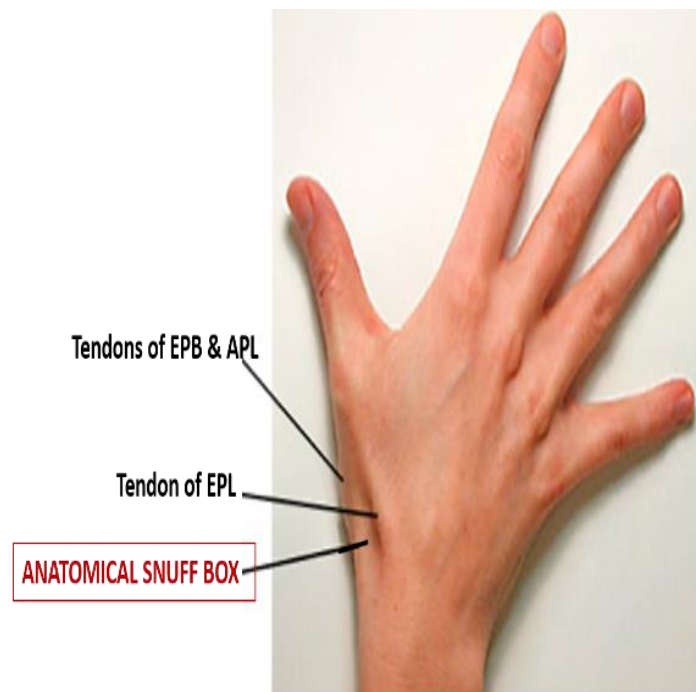


36. ABDUCTOR POLLICIS LONGUS

ORIGIN – Posterior surface of ulna and radius (distal to the attachments of supinator and anconeus), and intervening interosseous membrane

INSERTION – lateral side of base of metacarpal I

INNERVATION – posterior interosseous nerve (C₇, C₈)



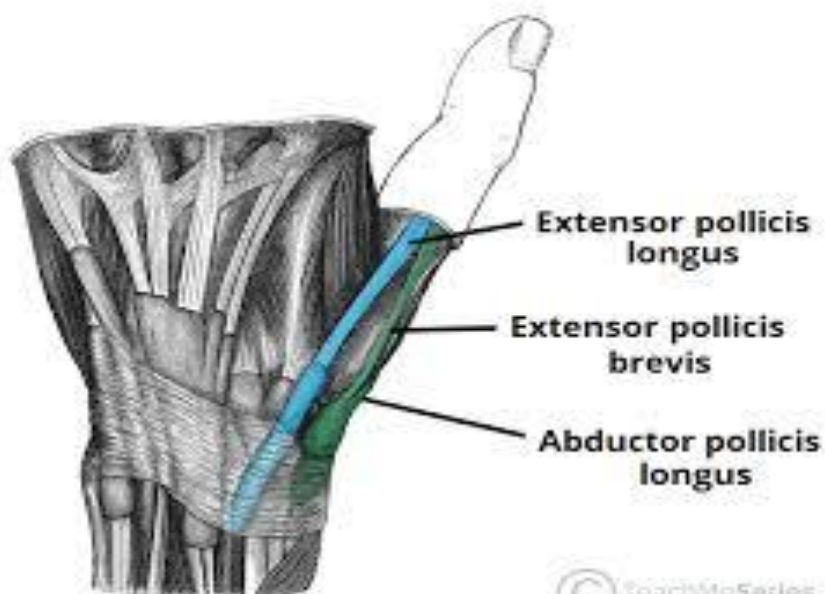
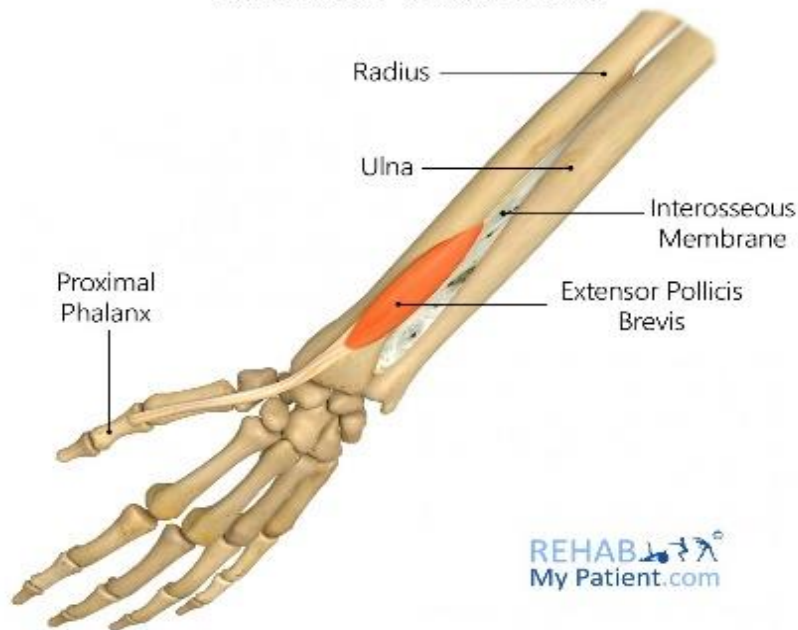
37. EXTENSOR POLLICIS BREVES

ORIGIN – posterior surface of radius (distal to abductor pollicis longus) and the adjacent interosseous membrane

INSERTION – dorsal surface of base of proximal phalanx of thumb

INNERVATION – posterior interosseous nerve (C₇, C₈)

Extensor Pollicis Brevis



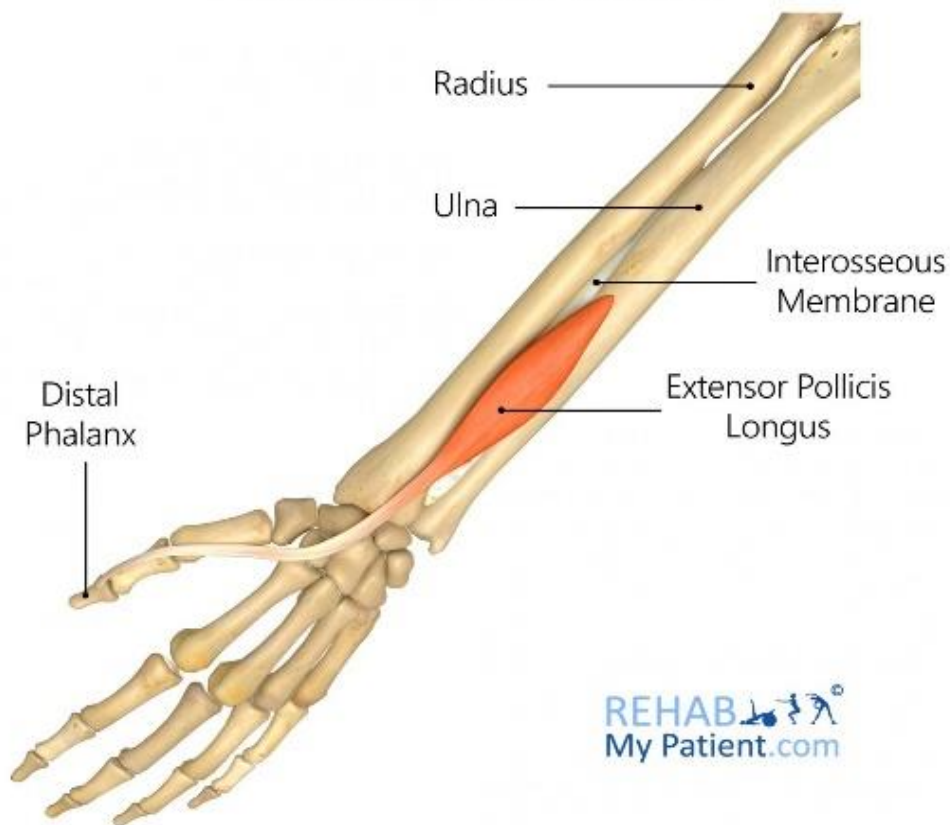
38. EXTENSOR POLLICIS LONGUS

ORIGIN – posterior surface of ulna (distal to the abductor pollicis longus) and the adjacent interosseous membrane

INSERTION – dorsal surface of base of distal phalanx of thumb

INNERVATION – posterior interosseous nerve (C₇, C₈)

Extensor Pollicis Longus

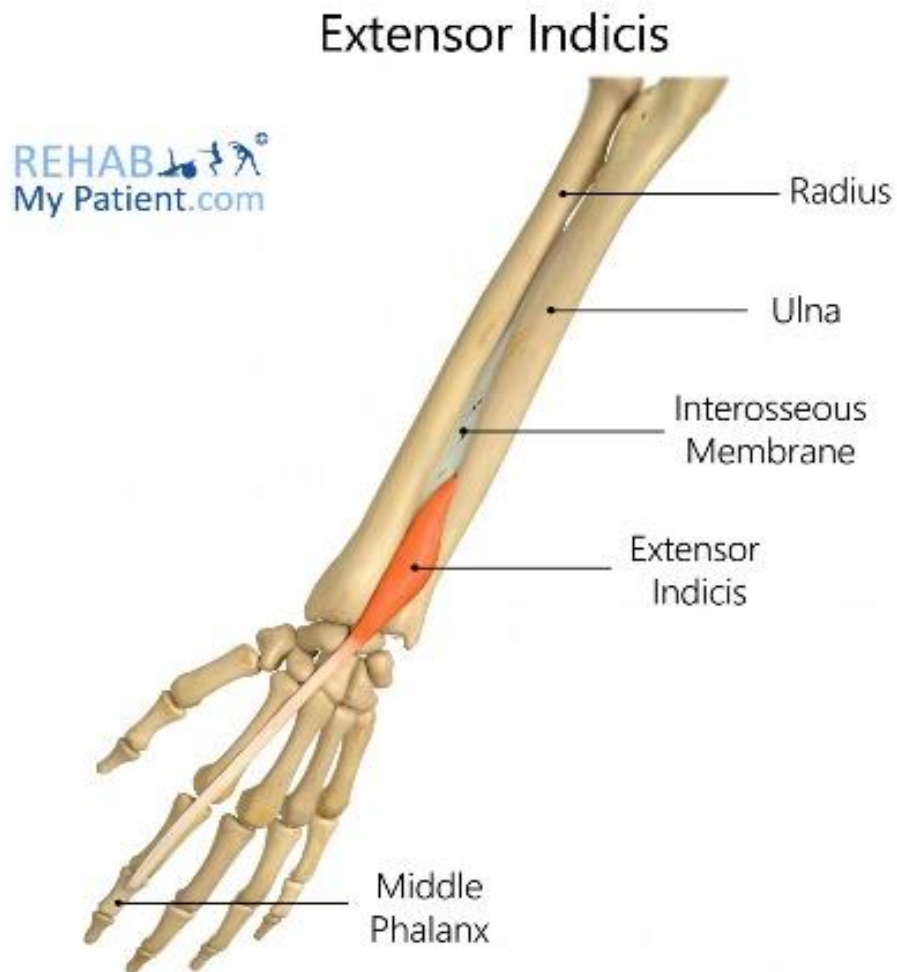


39. EXTENSOR INDICES

ORIGIN – posterior surface of ulna (distal to extensor pollicis longus) and the adjacent interosseous membrane

INSERTION – extensor hood of index finger

INNERVATION - posterior interosseous nerve (C₇, C₈)



40. PALMARIS BREVIS

ORIGIN – Palmar aponeurosis

Flexor retinaculum

INSERTION – dermis of skin on medial margin of hand

INNERVATION – superficial branch of ulnar nerve (C₈, T₁)



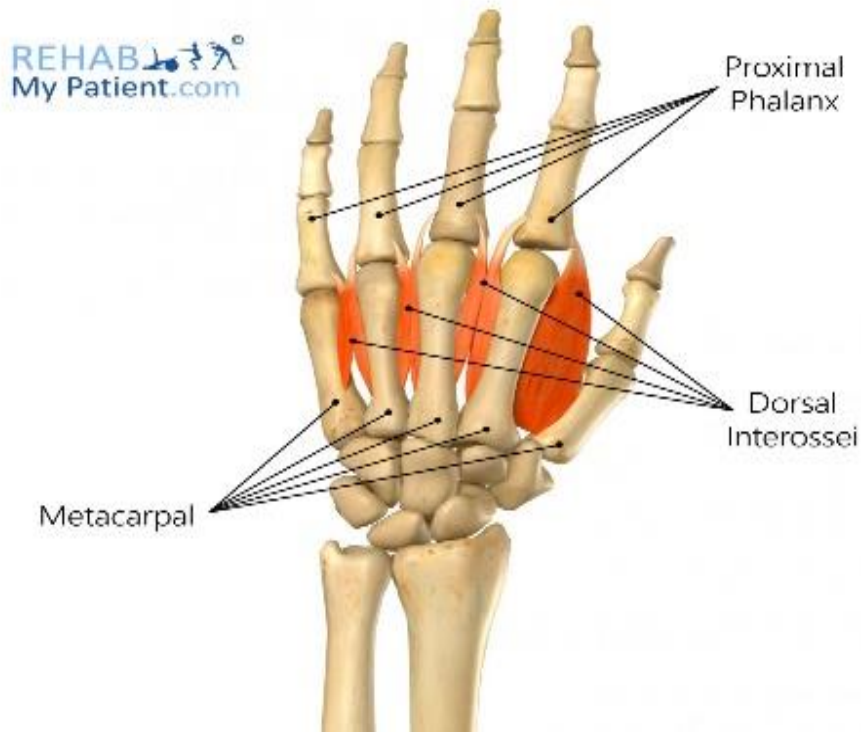
41. DORSAL INTEROSSEI (FOUR MUSCLES)

ORIGIN – adjacent sides of metacarpals

INSERTION – extensor hood and base of proximal phalanges of index, middle and ring fingers

INNERVATION – Deep branch of ulnar nerve (C8,T1)

Dorsal Interossei (Hand)

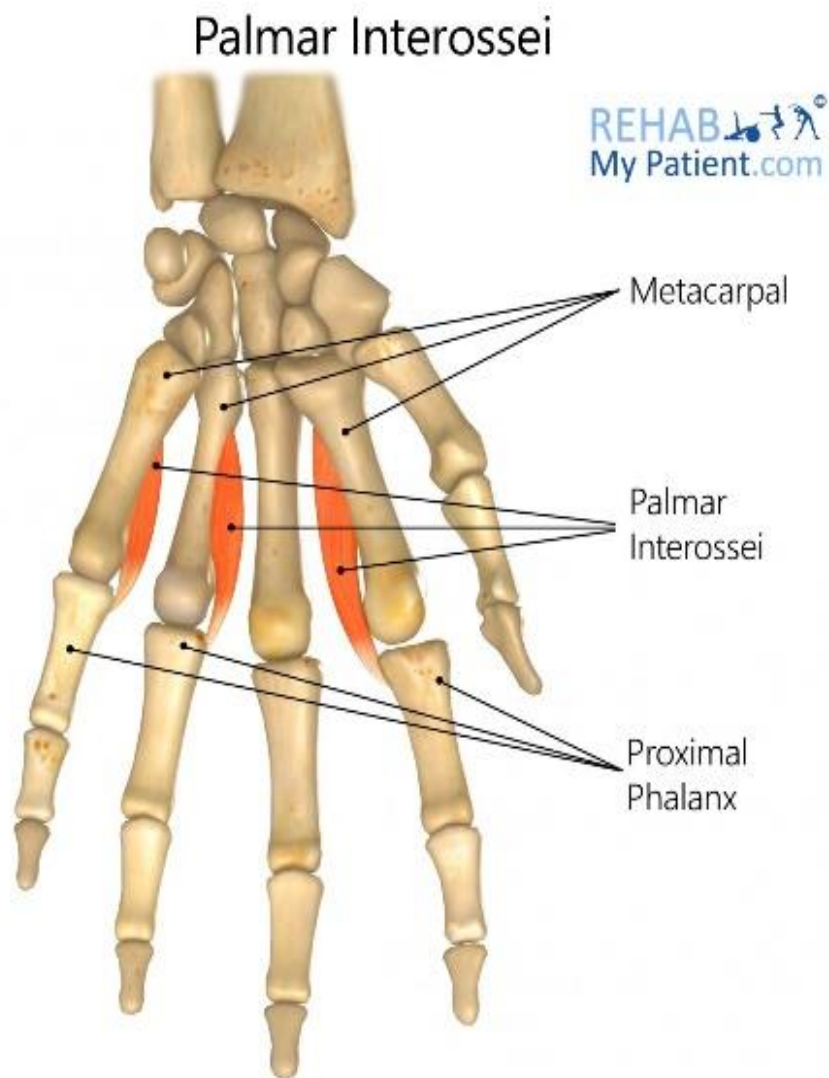


42. PALMAR INTEROSSEI

ORIGIN – Sides of metacarpals

INSERTION – Extensor hoods of the thumb, index, ring, and little fingers and the proximal phalanx of thumb

INNERVATION – Deep branch of ulnar nerve (C8,T1)



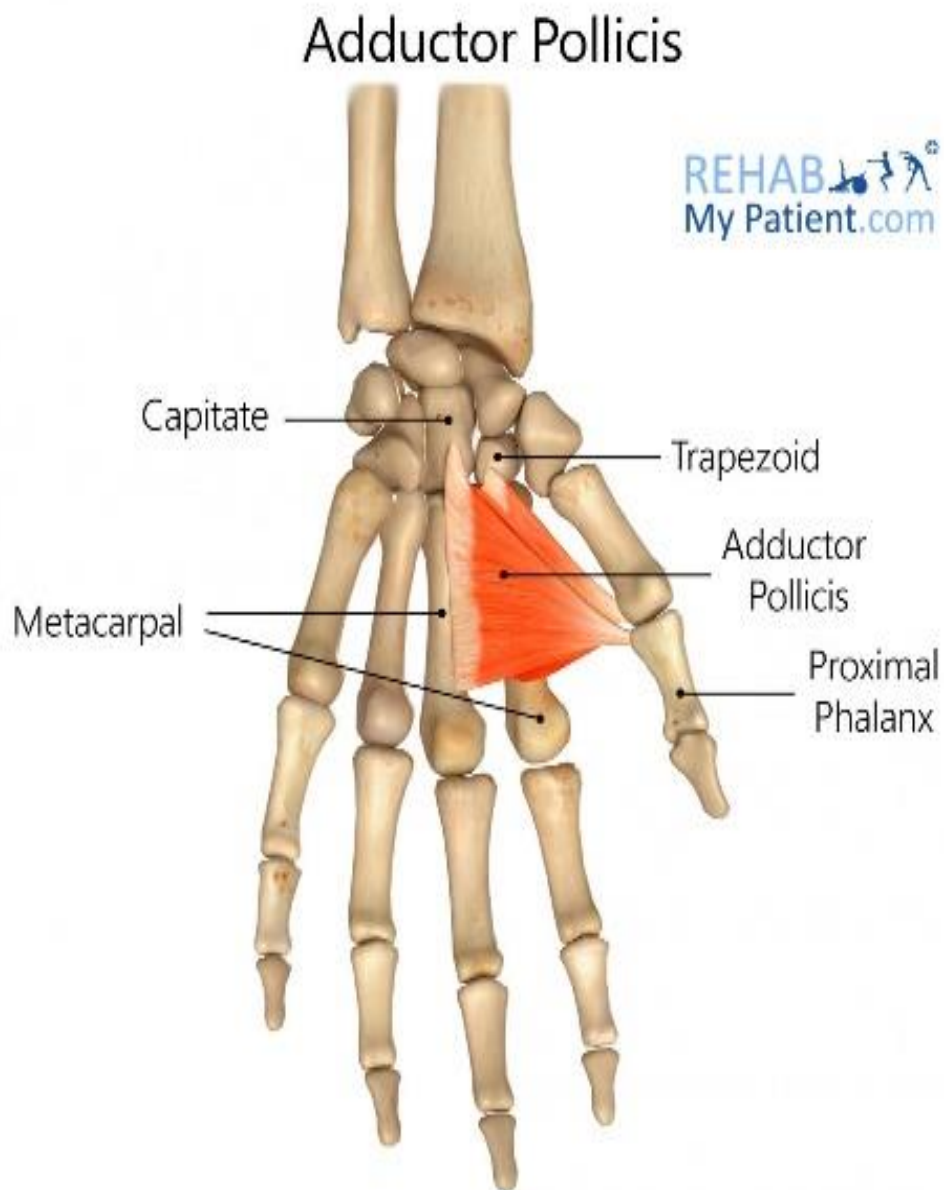
43. ADDUCTOR POLLICIS

ORIGIN OF TRANSVERSE HEAD – metacarpal III

ORIGIN OF OBLIQUE HEAD – capitate and bases of metacarpal II and III

INSERTION – base of proximal phalanx extensor hood of thumb

INNERVATION – deep branch of ulnar nerve (C₈, T₁)



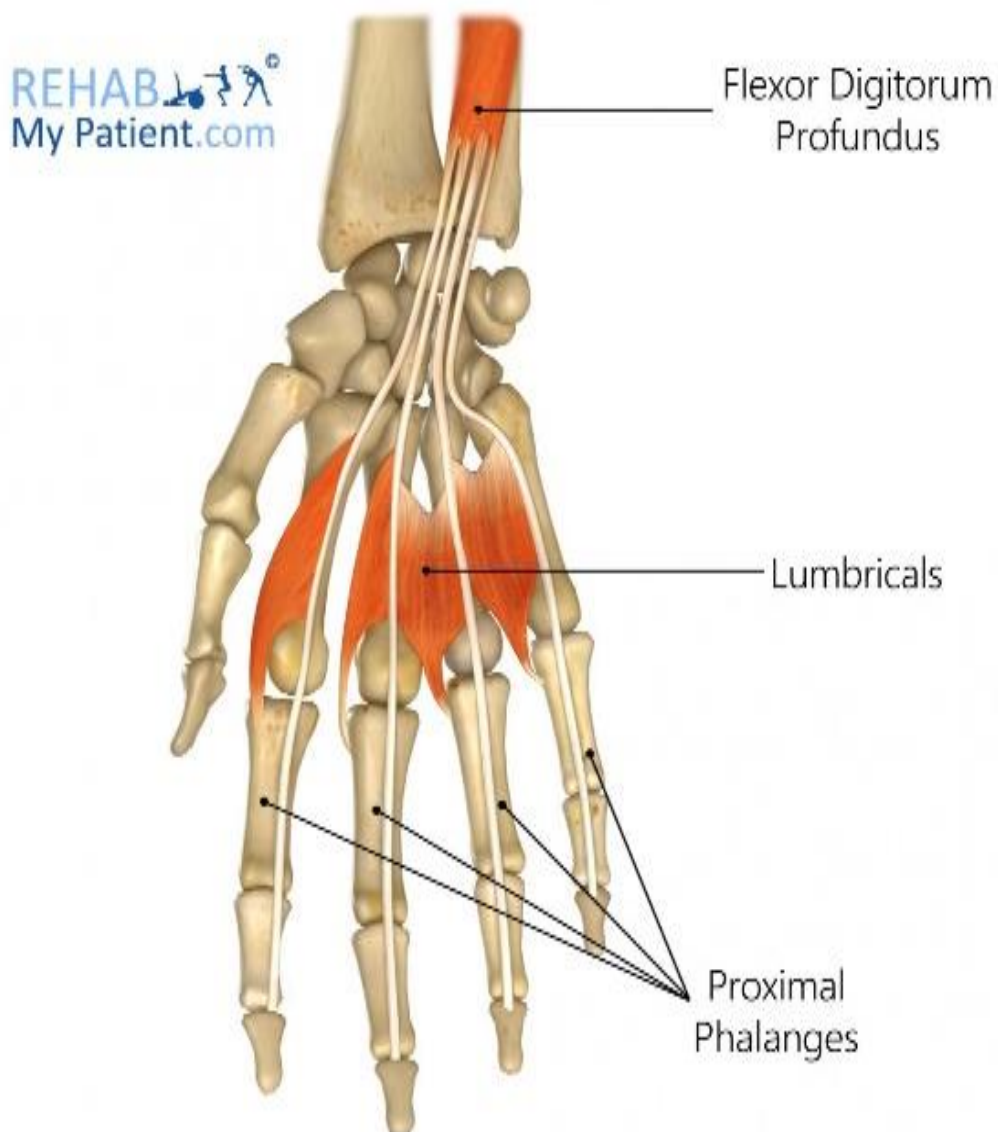
44. LUMBRICALS (FOUR MUSCLES)

ORIGIN – tendons of flexor digitorum profundus

INSERTION – extensor hoods of index, ring, middle and little fingers

INNERVATION – medial two by the deep branch of the ulnar nerve; lateral two by digital branches of median nerve

Lumbricals (Hand)



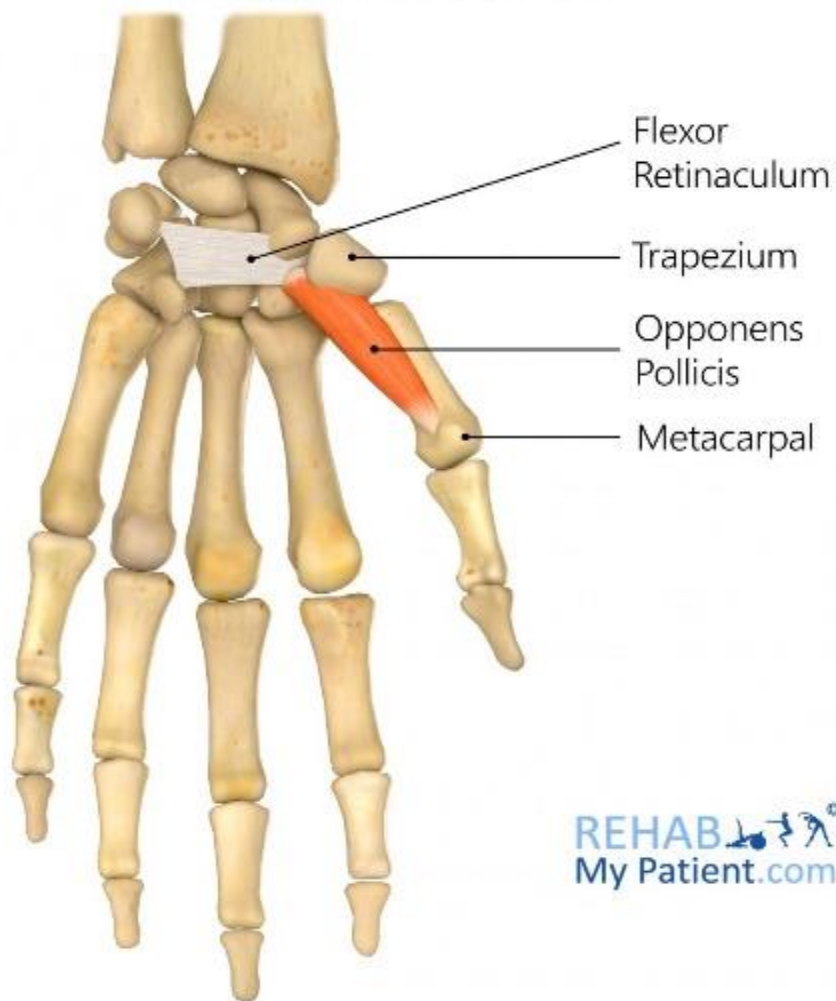
45. OPPONENS POLLICIS

ORIGIN – Tubercle of trapezium and flexor retinaculum

INSERTION – Lateral margin and adjacent palmar surface of metacarpal I

INNERVATION – Recurrent branch of median nerve (C₈, T₁)

Opponens Pollicis

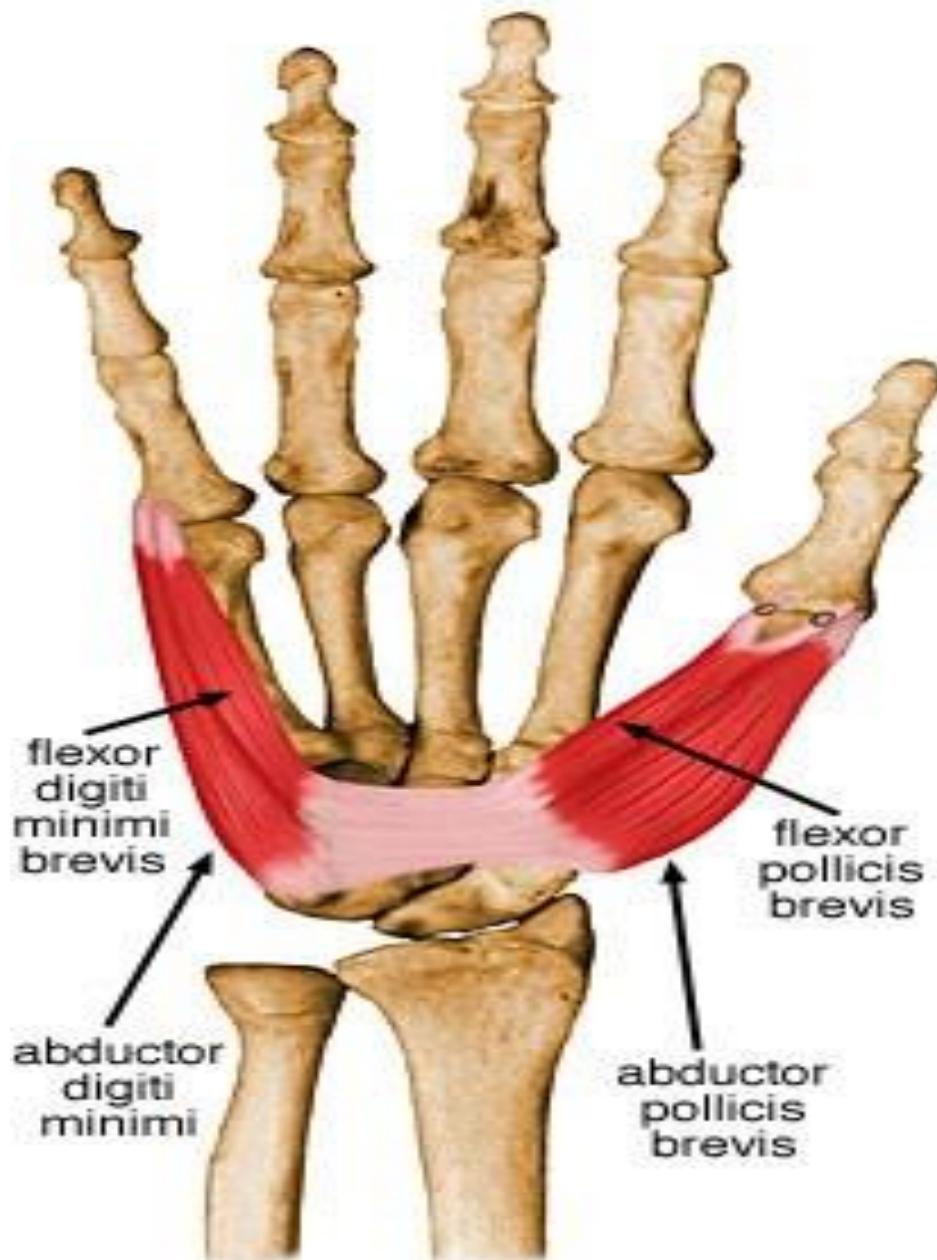


46. ABDUCTOR POLLICIS BREVIS

ORIGIN – Tubercles of scaphoid and trapezium and adjacent flexor retinaculum

INSERTION – Proximal phalanx and extensor hood of thumb

INNERVATION – Recurrent branch of median nerve (C8,T1)



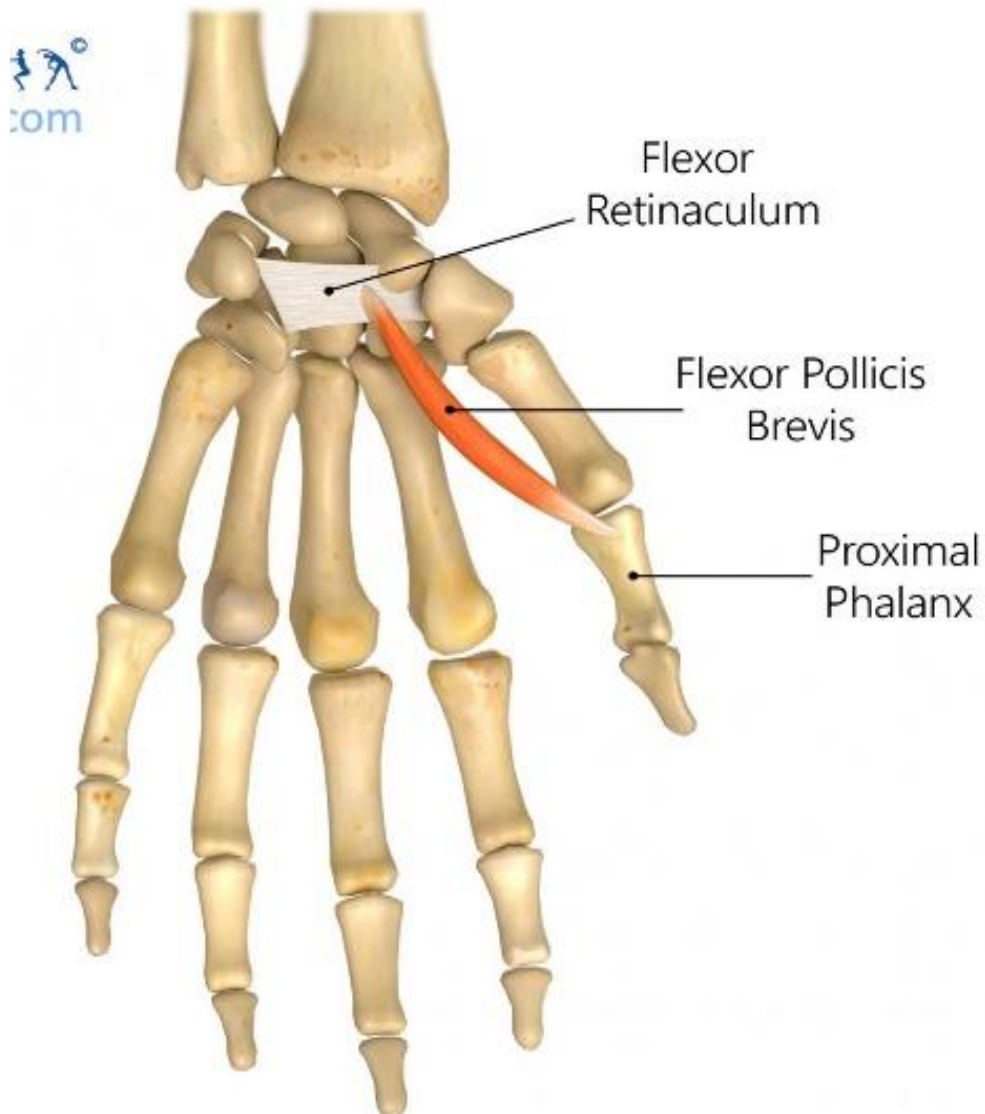
47. FLEXOR POLLICIS BREVIS

ORIGIN – Tubercle of the trapezium and flexor retinaculum

INSERTION – Proximal phalanx of the thumb

INNERVATION – Recurrent branch of median nerve (C8,T1)

Flexor Pollicis Brevis



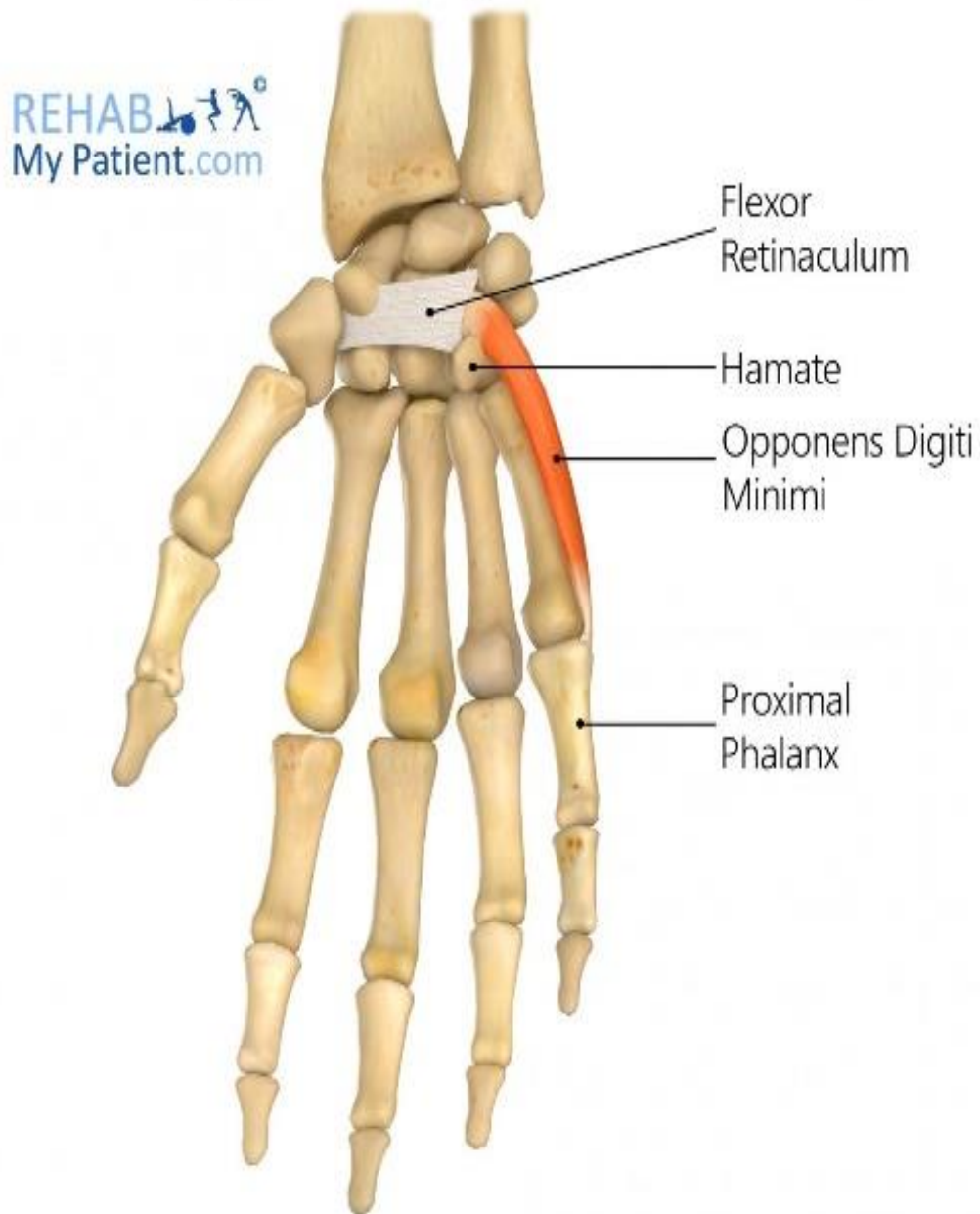
48. OPPONENS DIGITI MINIMI

ORIGIN – Hook of hamate and flexor retinaculum

INSERTION – Medial aspect of metacarpal V

INNERVATION – Deep branch of ulnar nerve (C8,T1)

Opponens Digiti Minimi

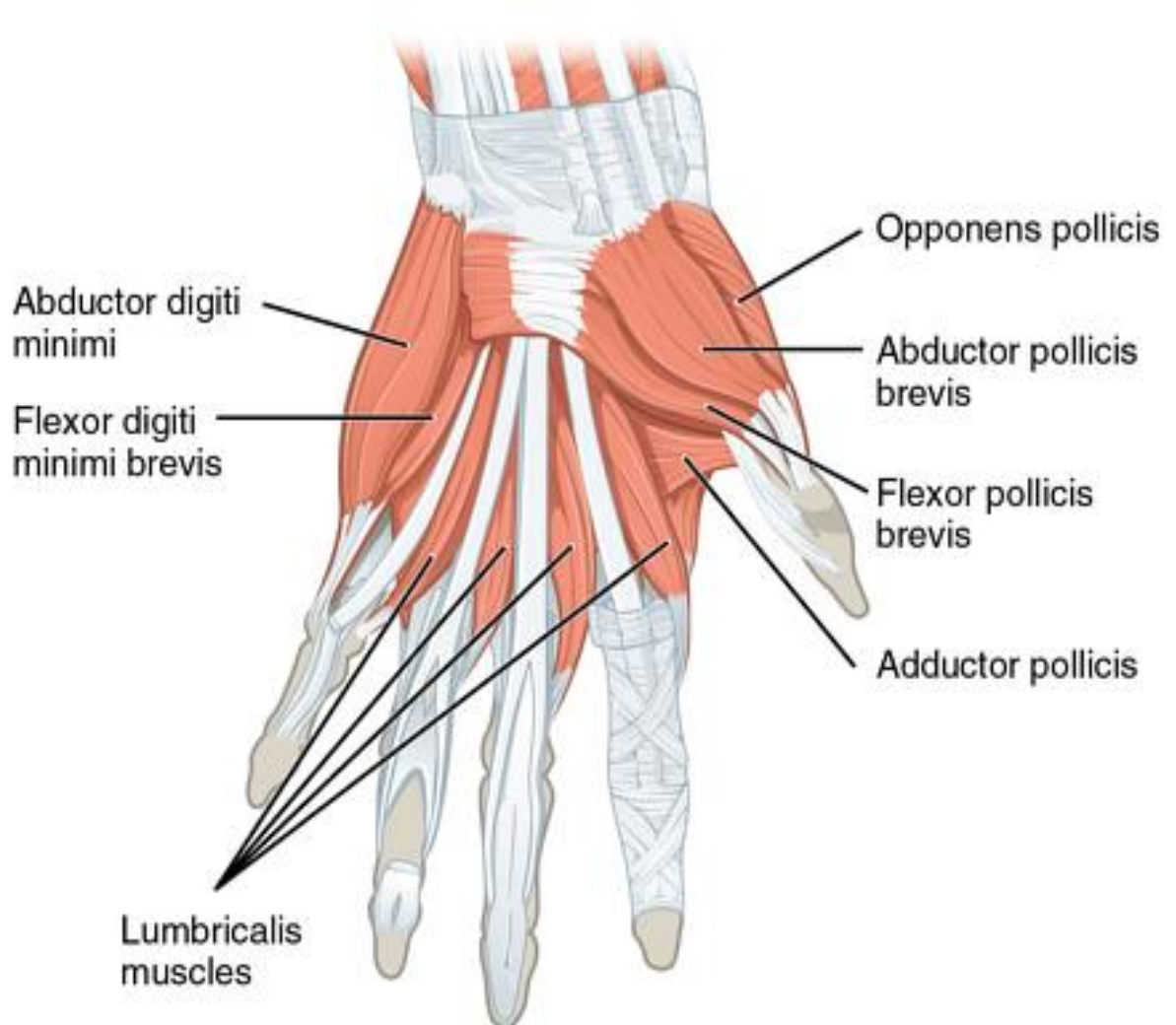


49. ABDUCTOR DIGITI MINIMI

ORIGIN – Pisiform, the pisohamate ligament, and tendon of flexor carpi ulnaris

INSERTION – Proximal phalanx of little finger

INNERVATION – Deep branch of ulnar nerve (C8,T1)



50. FLEXOR DIGITI MINIMI BREVIS

ORIGIN – Hook of the hamate and flexor retinaculum

INSERTION – Proximal phalanx of little finger

INNERVATION – Deep branch of ulnar nerve (C8,T1)

Flexor Digiti Minimi Brevis (Hand)

