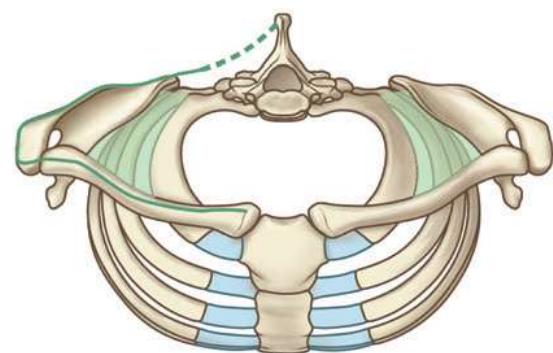
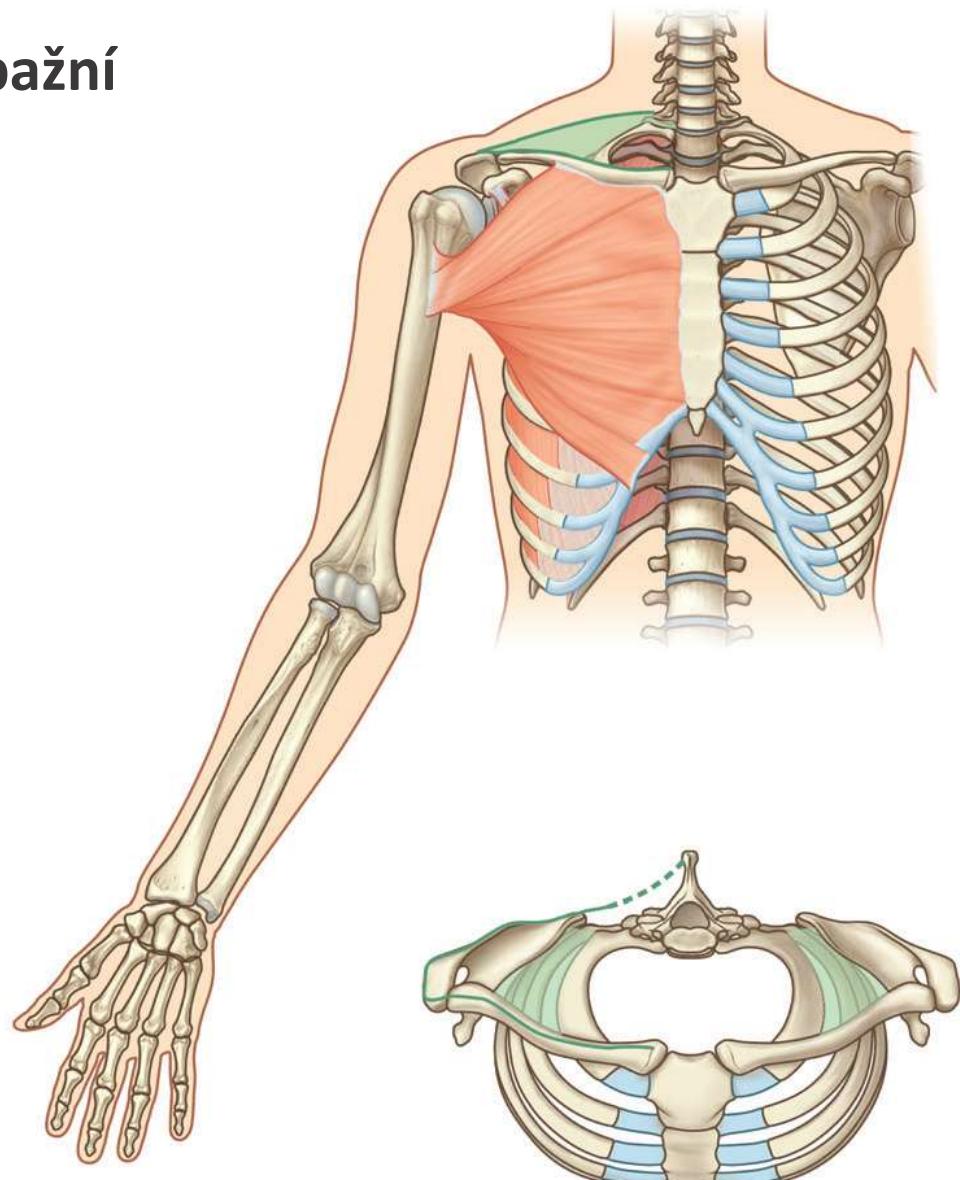


Membrum superius 1

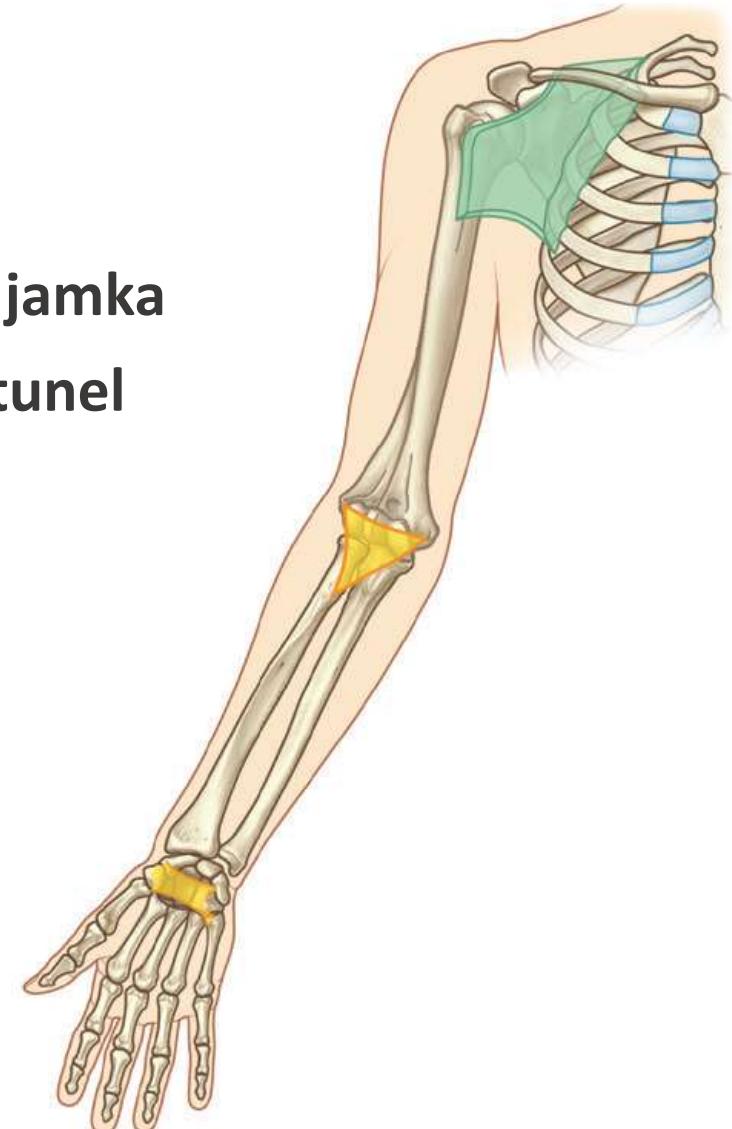
Prof. MUDr. Jiří Ferda, Ph.D.

Clenění horní končetiny

- Pletence pažní
- Rameno
- Paže
- Loket
- Předloktí
- Zápěstí
- Ruka



- Axila
- Kubitální jamka
- Karpální tunel

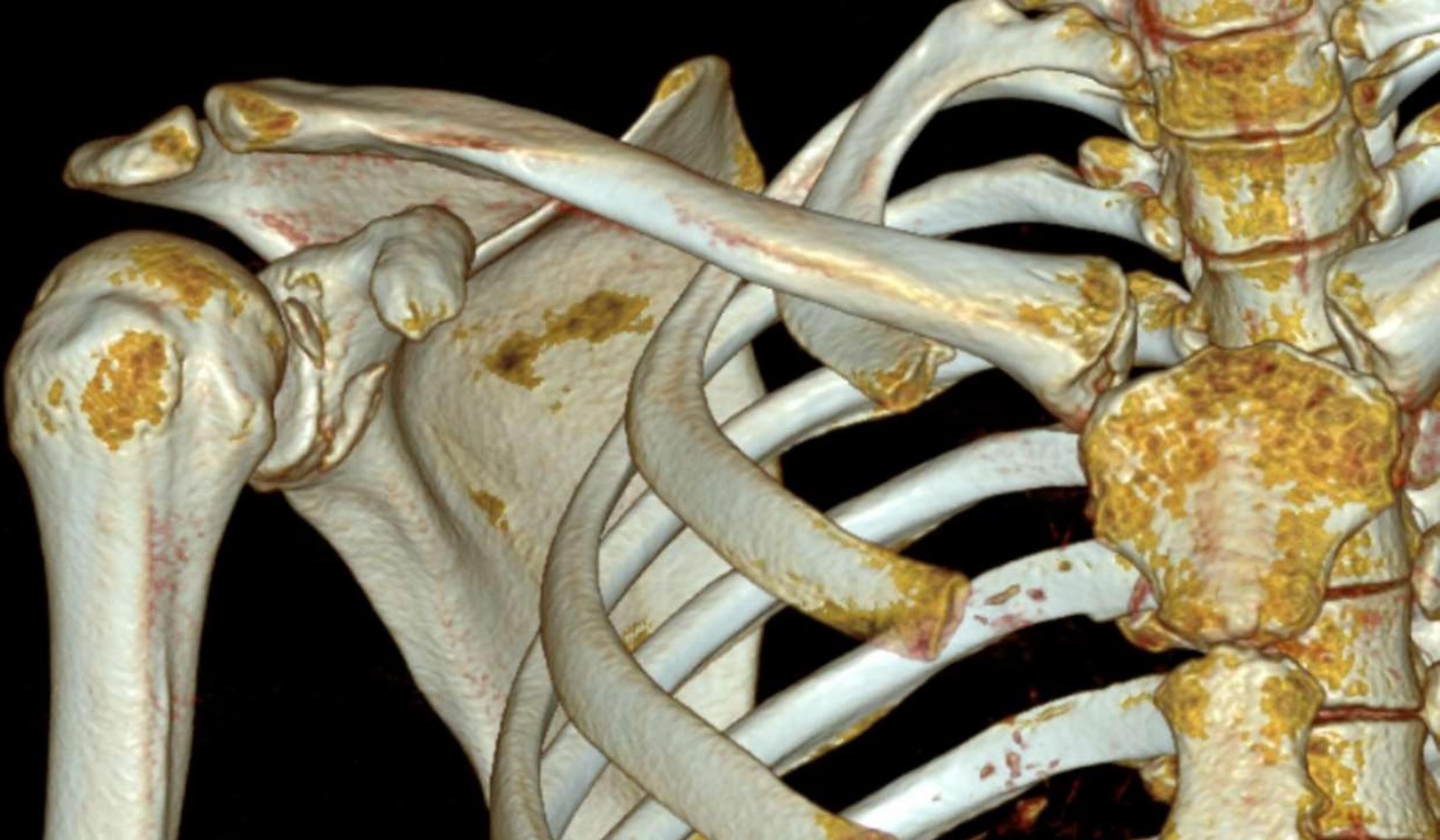


RTG

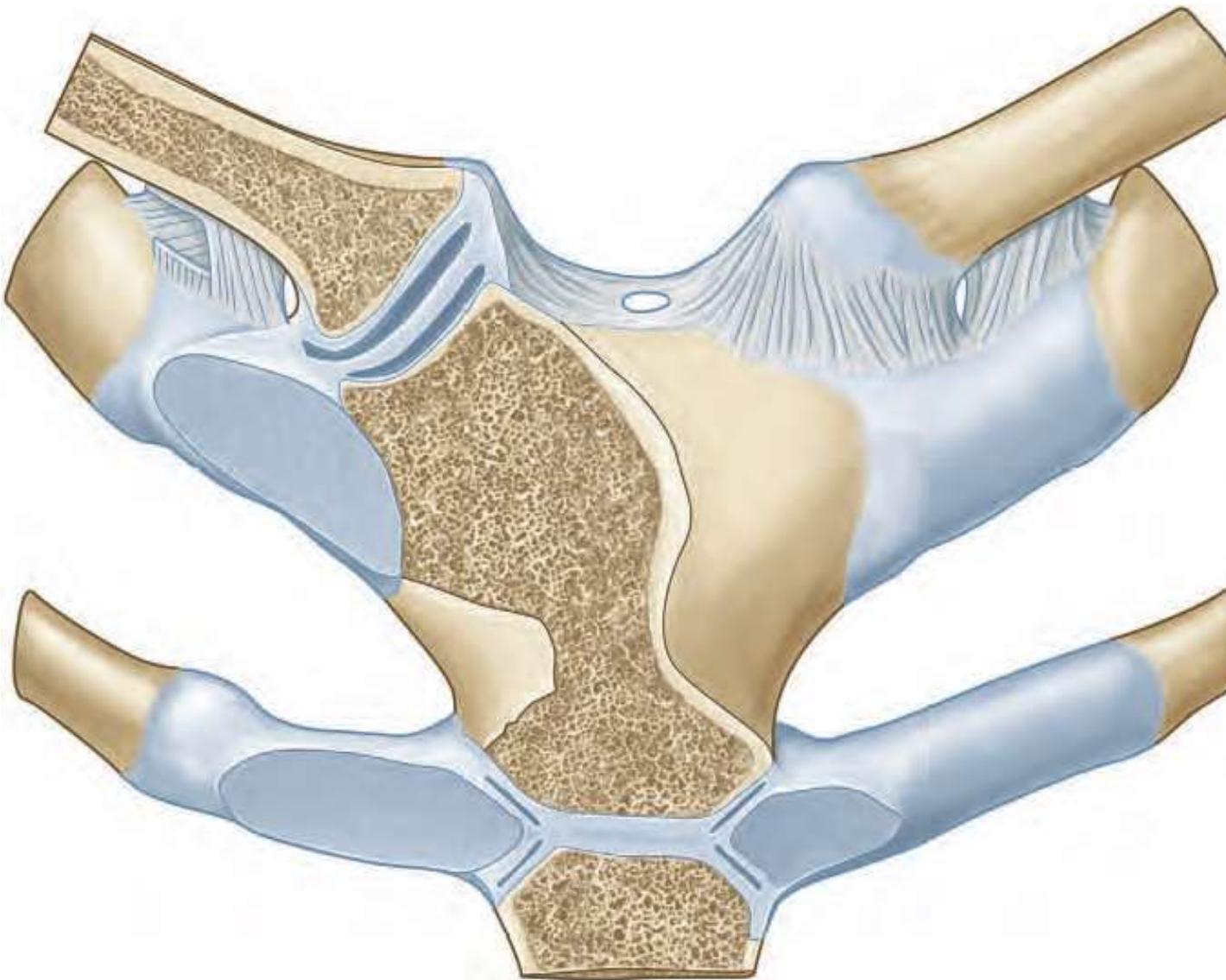
R



- Clavícula
- Escápula
- Cavitas glenoidalis
- Acromion
- Processus coracoideus
- Facies articularis humeri
- Collum anatomicum
- Collum chirúrgico
- Tuberculum majus
- Tuberculum minus

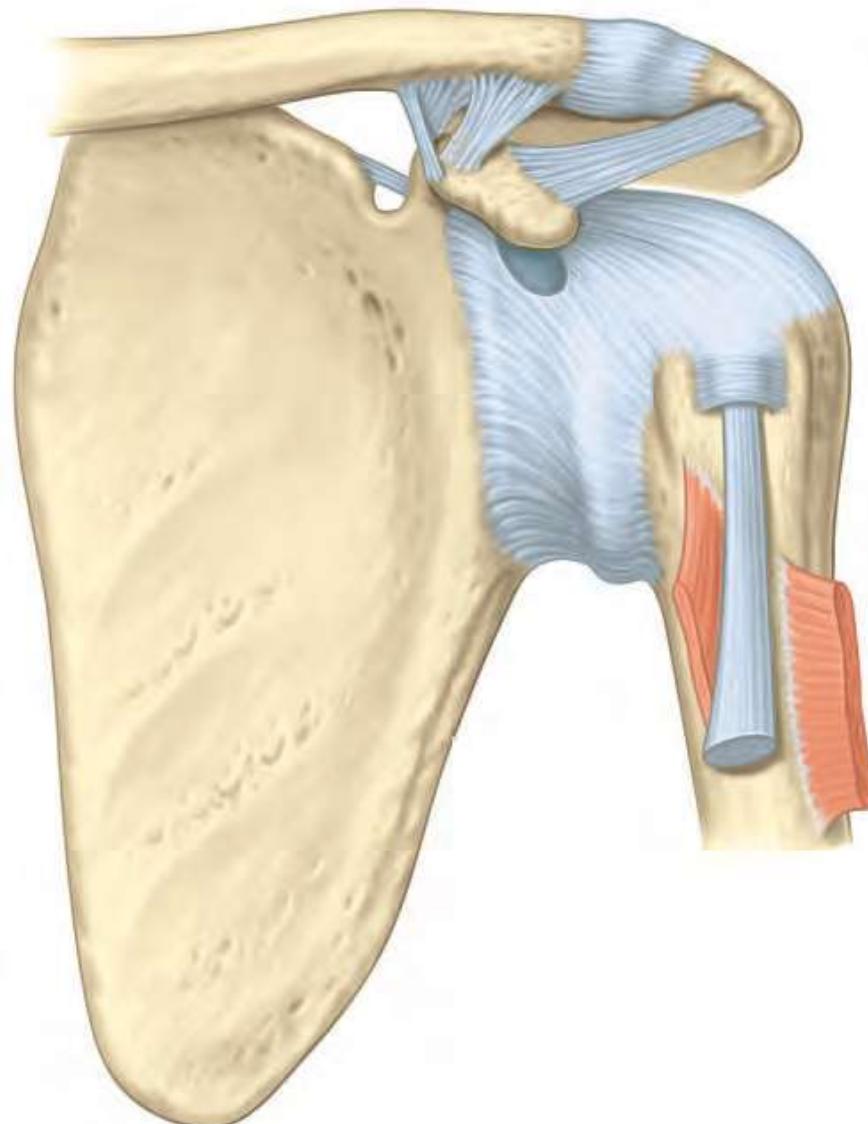


Art. sternoclavicularis



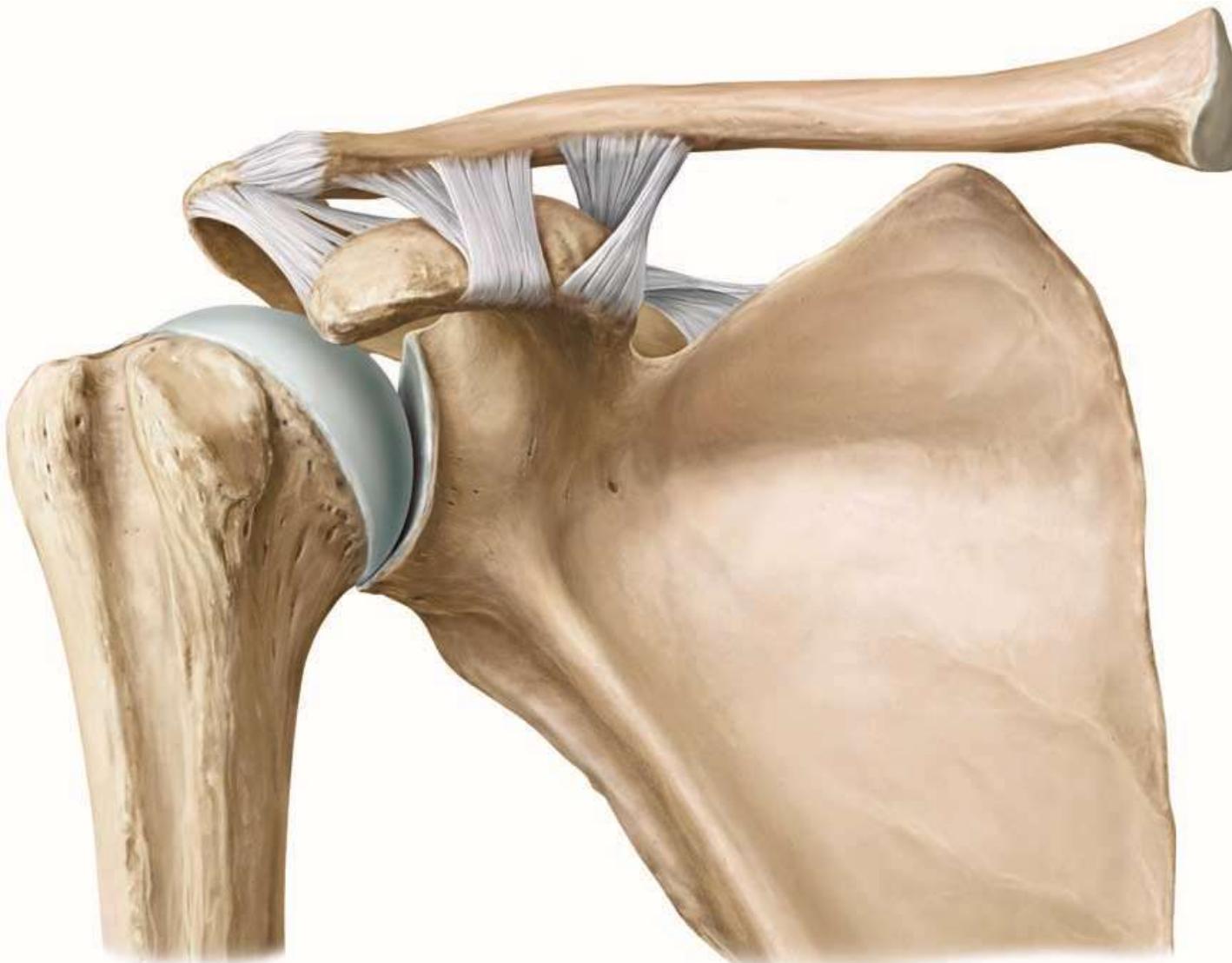
- **Facies articulares**
- **Discus**
- **Capsula**
- **Lig. costoclaviculare**
- **Lig. sternoclaviculare anterius**
- **Lig. interclaviculare**

Art. acromioclavicularis



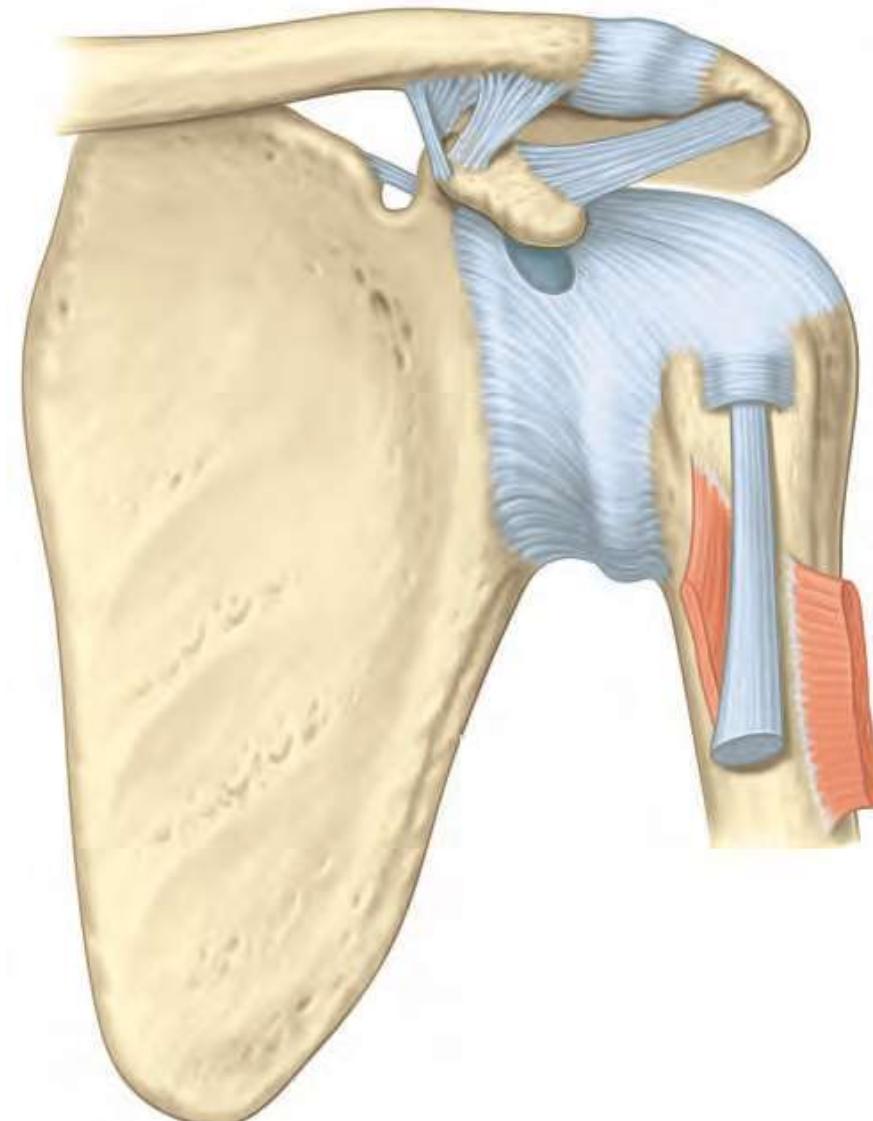
- Lig. acromioclaviculare
- Lig. trapezoideum
- Lig. conoideum
- Lig. transversum scapulae superius
- Lig. acromioclaviculare
- Lig. aromiocoracoideum
- Fornix art. glenohumeralis

Art. glenohumeralis



- Lig. acromioclaviculare
- Lig. trapezoideum
- Lig. conoideum
- Lig. transversum scapulae superius
- Lig. acromioclaviculare
- Lig. aromiocoracoideum
- Fornix art. glenohumeralis

Art. glenohumeralis



- Lig. coracohumerale
- Lig. glenohumerale superius
- Lig. glenohumerale inferius
- Lig. transversum humeri
- M. biceps brachii, caput longum
- M. deltoideus
- M. pectoralis major
- M. latissimus dorsi



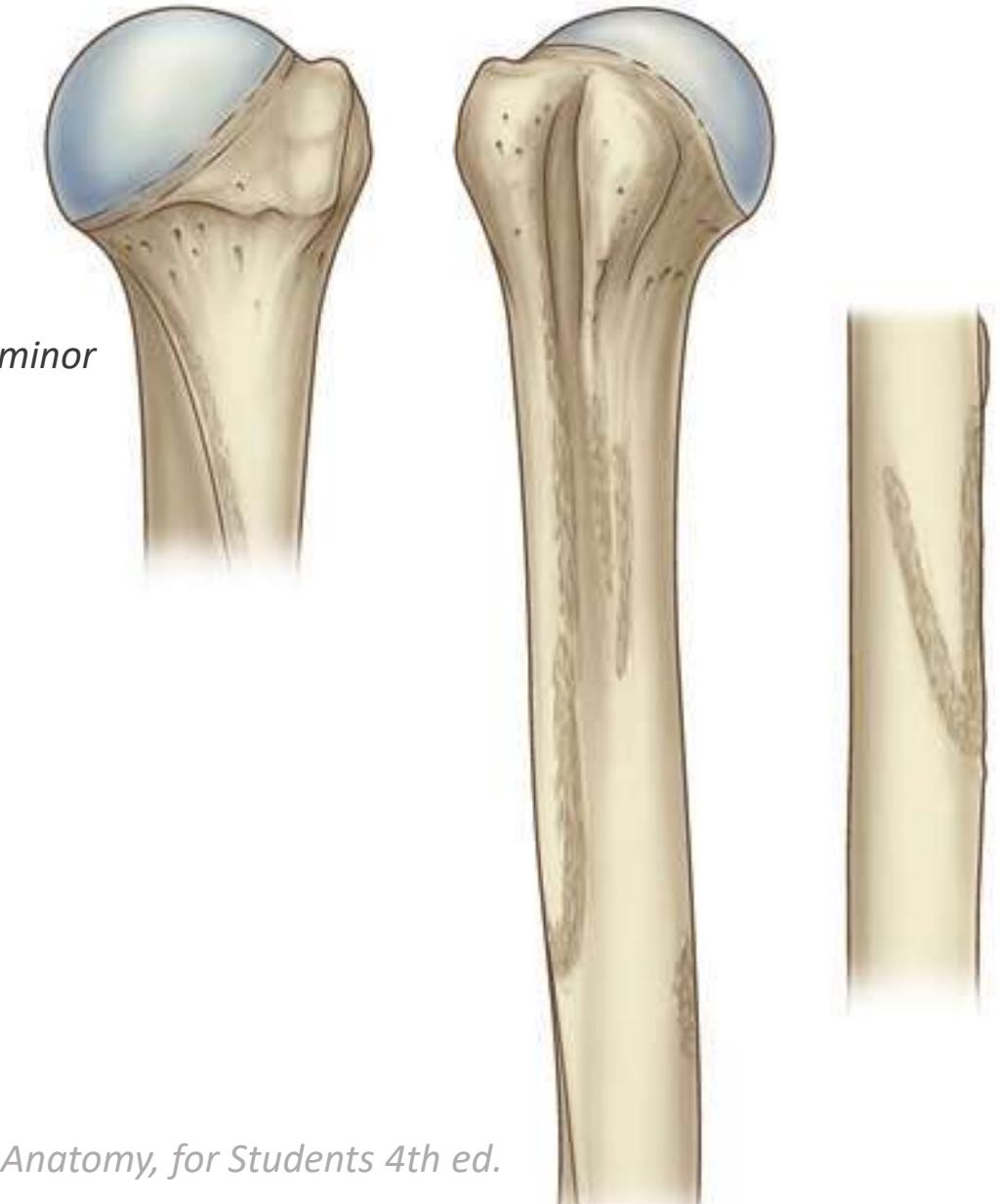
Thieme Atlas of Anatomy vol. 1.



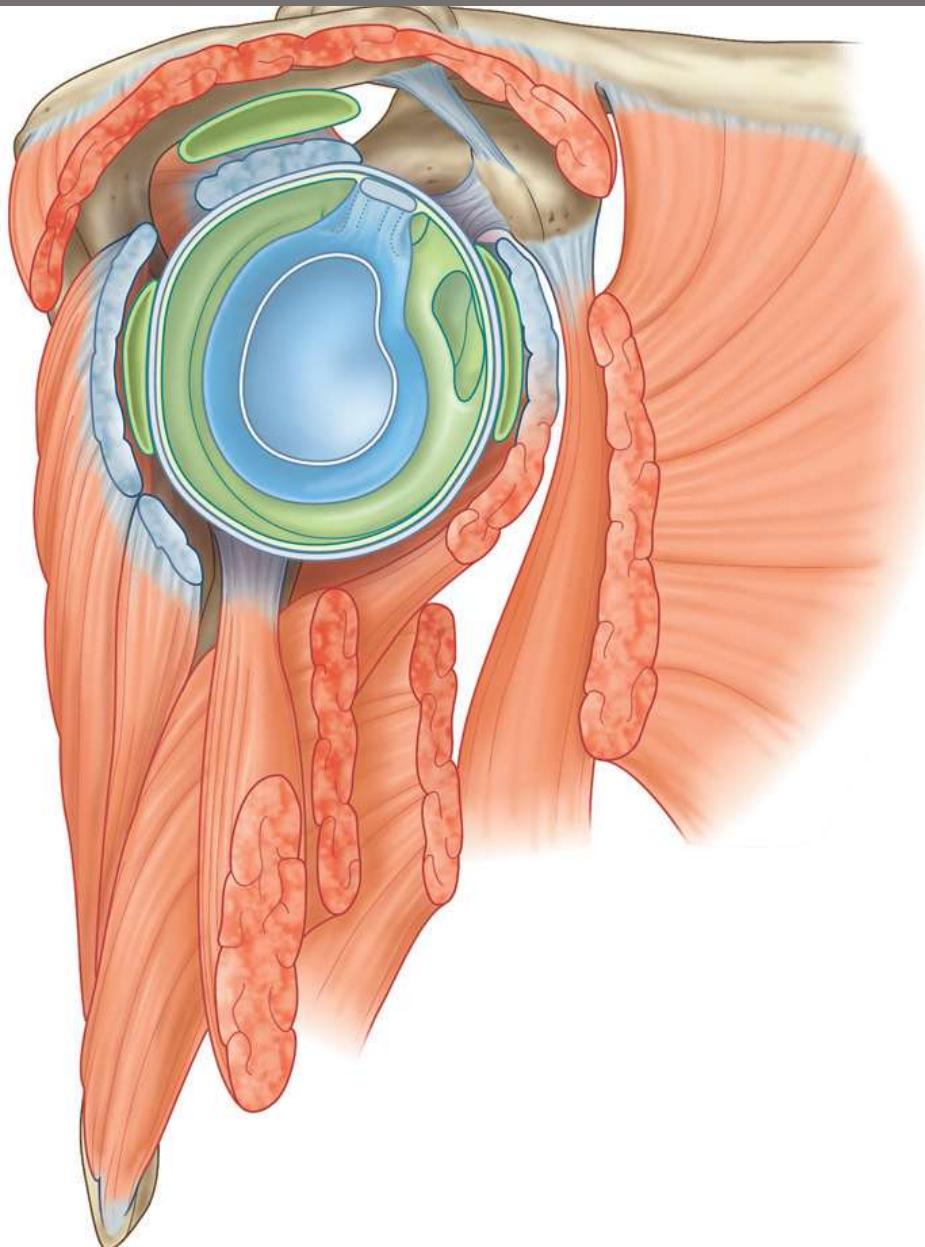


Proximální humerus

- ❖ **Facies articularis**
- ❖ **Collum anatomicum**
- ❖ **Collum chirugicum**
- ❖ **Tuberculum majus** *m. supraspinatus , M. infraspinatus, M. teres minor*
- ❖ **Tuberculum minus** *m. subscapularis*
- ❖ **Sulcus intertubercularis**
 - ❖ *tendo capitis longi m. bicipitis brachii*
 - ❖ *m. latissimus dorsi*
- ❖ **Crista tuberculi majoris** *m. pectoralis major*
- ❖ **Crista tuberculi minoris** *m. teres major*
- ❖ **Tuberrositas m. deltoidei** *m. deltoideus*
- ❖ **Tuberossitas m. coracobrachialis** *m. coracobrachialis*

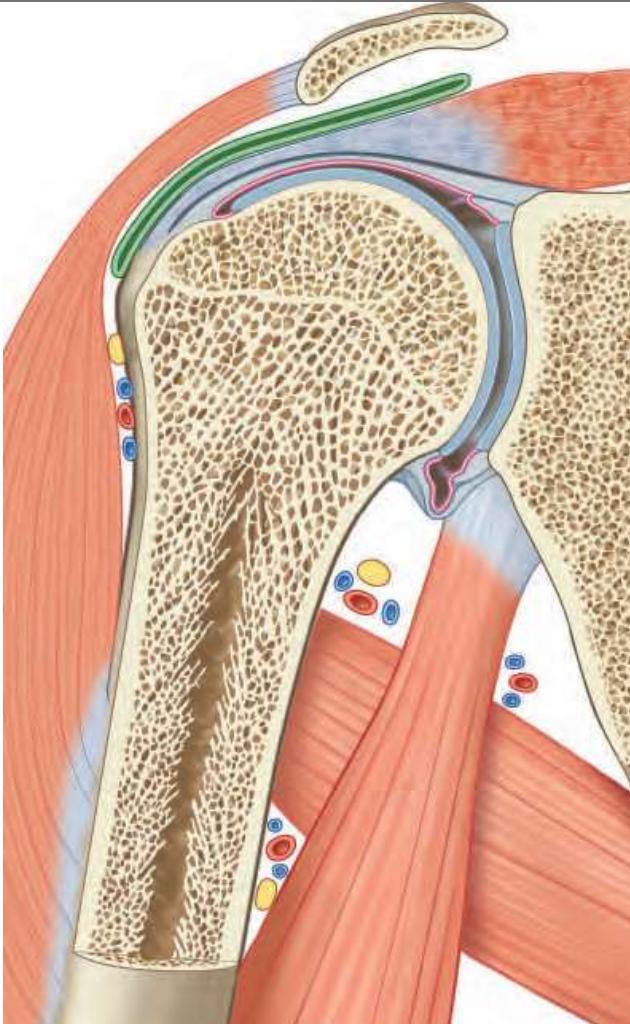
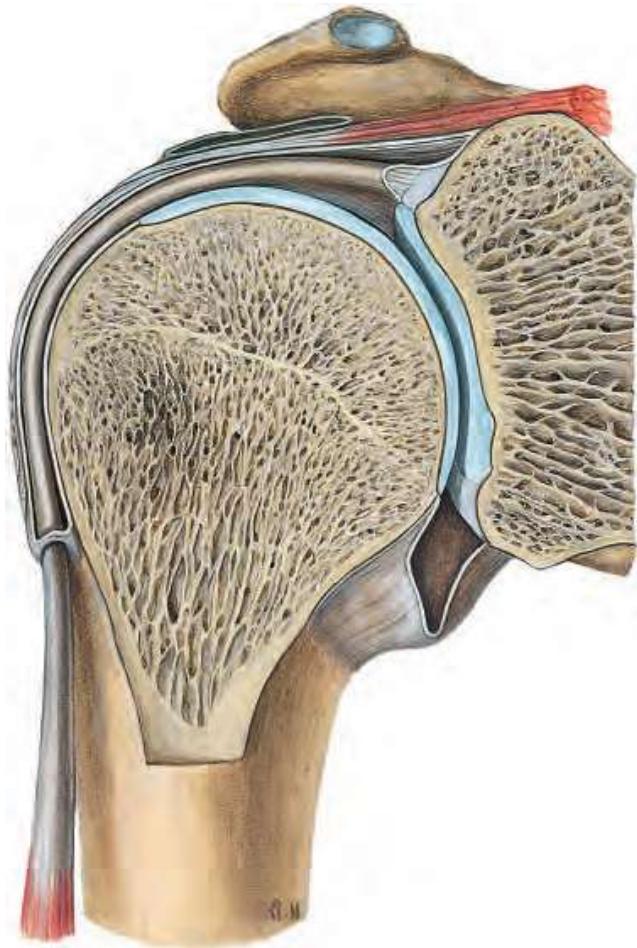


Art. glenohumeralis



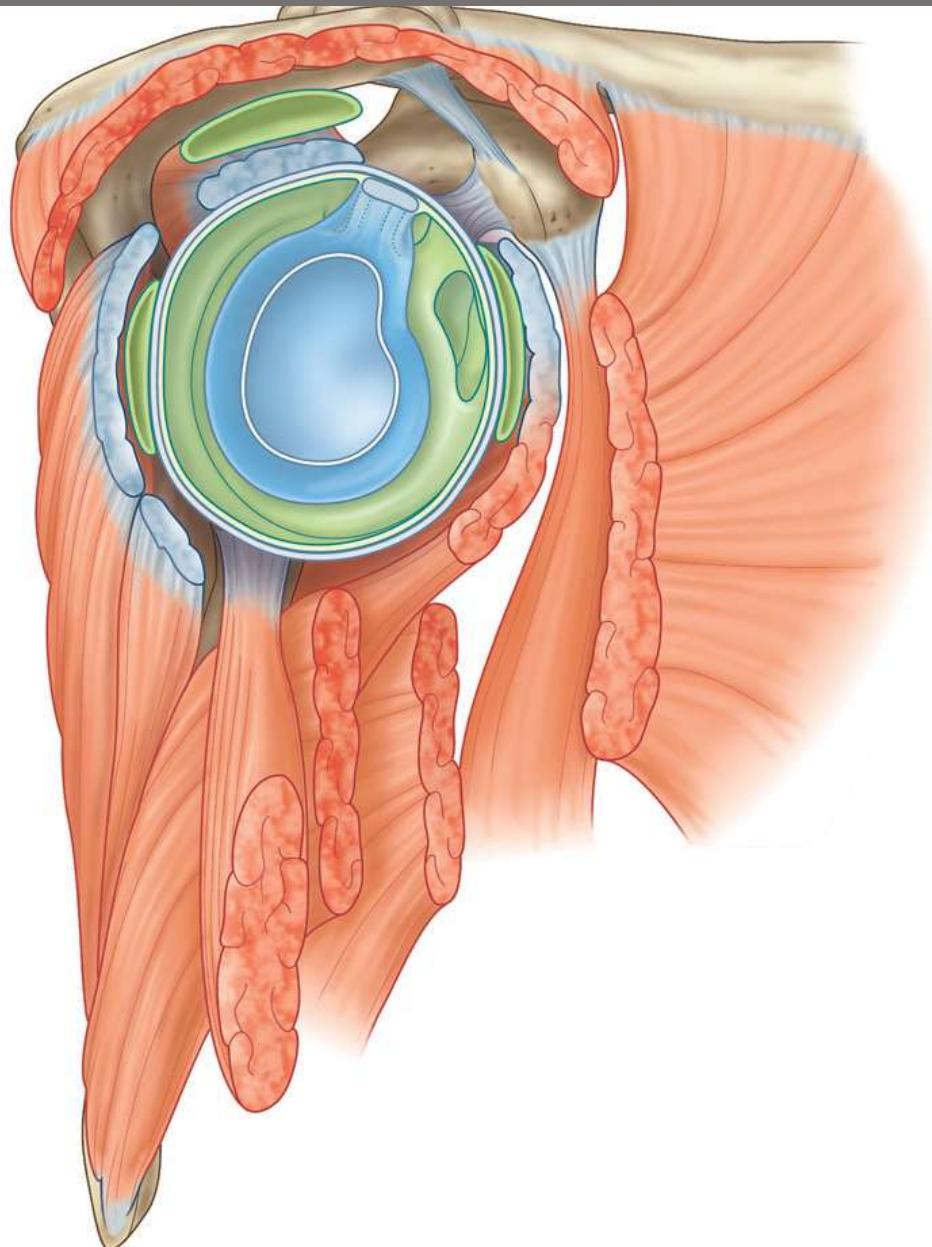
- Cavitas glenoidalis
- Labrum glenoidale
- Tendo m. bicipitis (caput longum)
- Capsula articularis
- Musculi
 - M. deltoideus
 - M. pectoralis major
 - M. latissimus dorsi
 - M. teres major
 - M. biceps brachii - caput breve
 - M. triceps brachii - caput longum
 - M. supraspinatus
 - M. infraspinatus
 - M. teres minor
 - M. subscapularis
- Bursae subtendineae

Art. glenohumeralis

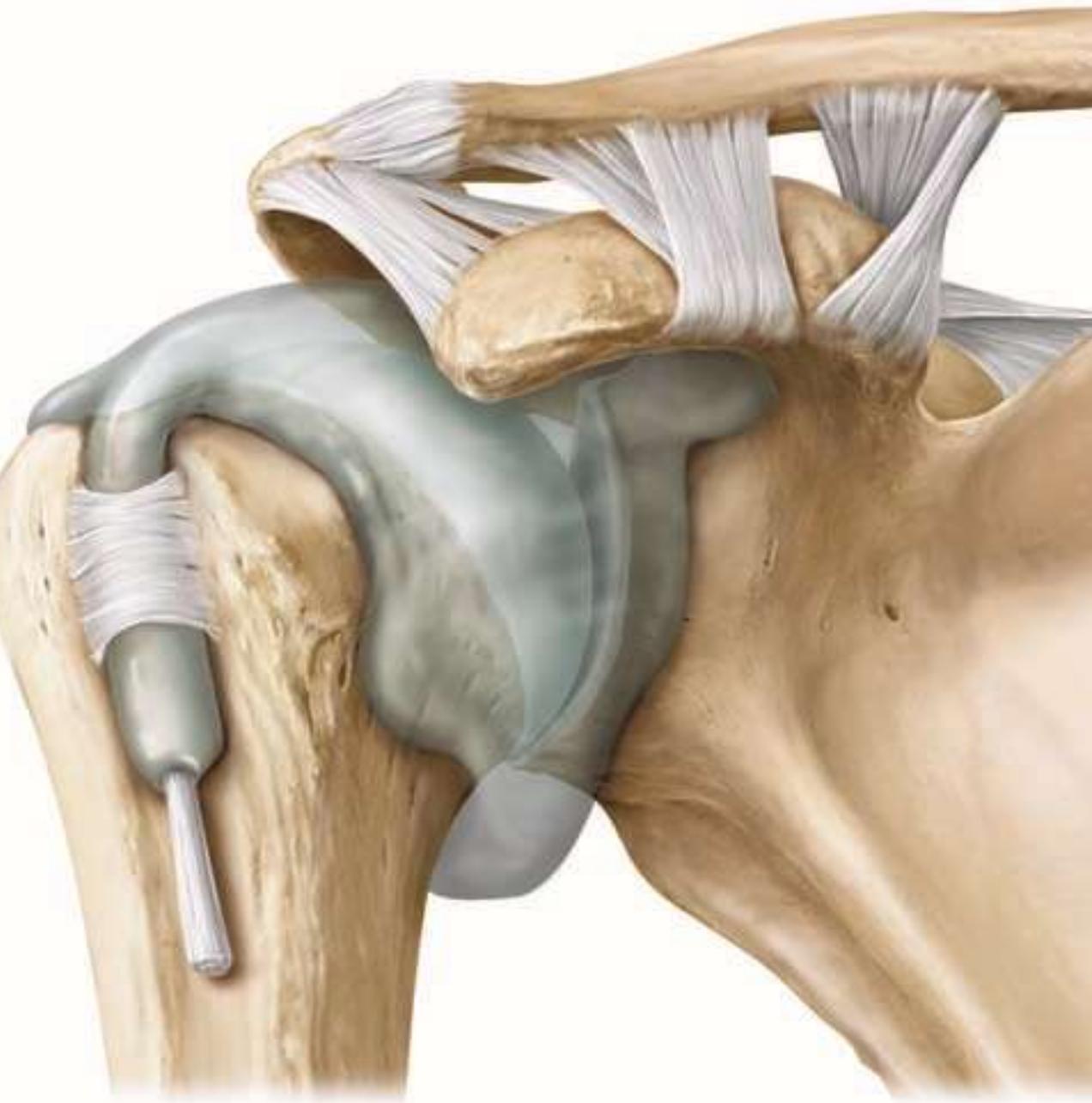


- ❖ Cavitas glenoidalis
- ❖ Labrum glenoidale
- ❖ Tendo m. bicipitis (caput longum)
- ❖ Capsula articularis
- ❖ **Musculi**
 - ❖ M. deltoideus
 - ❖ M. pectoralis major
 - ❖ M. latissimus dorsi
 - ❖ M. teres major
 - ❖ M. biceps brachii - caput breve
 - ❖ M. triceps brachii - caput longum
 - ❖ M. supraspinatus
 - ❖ M. infraspinatus
 - ❖ M. teres minor
 - ❖ M. subscapularis
- ❖ **Bursae subtendineae**

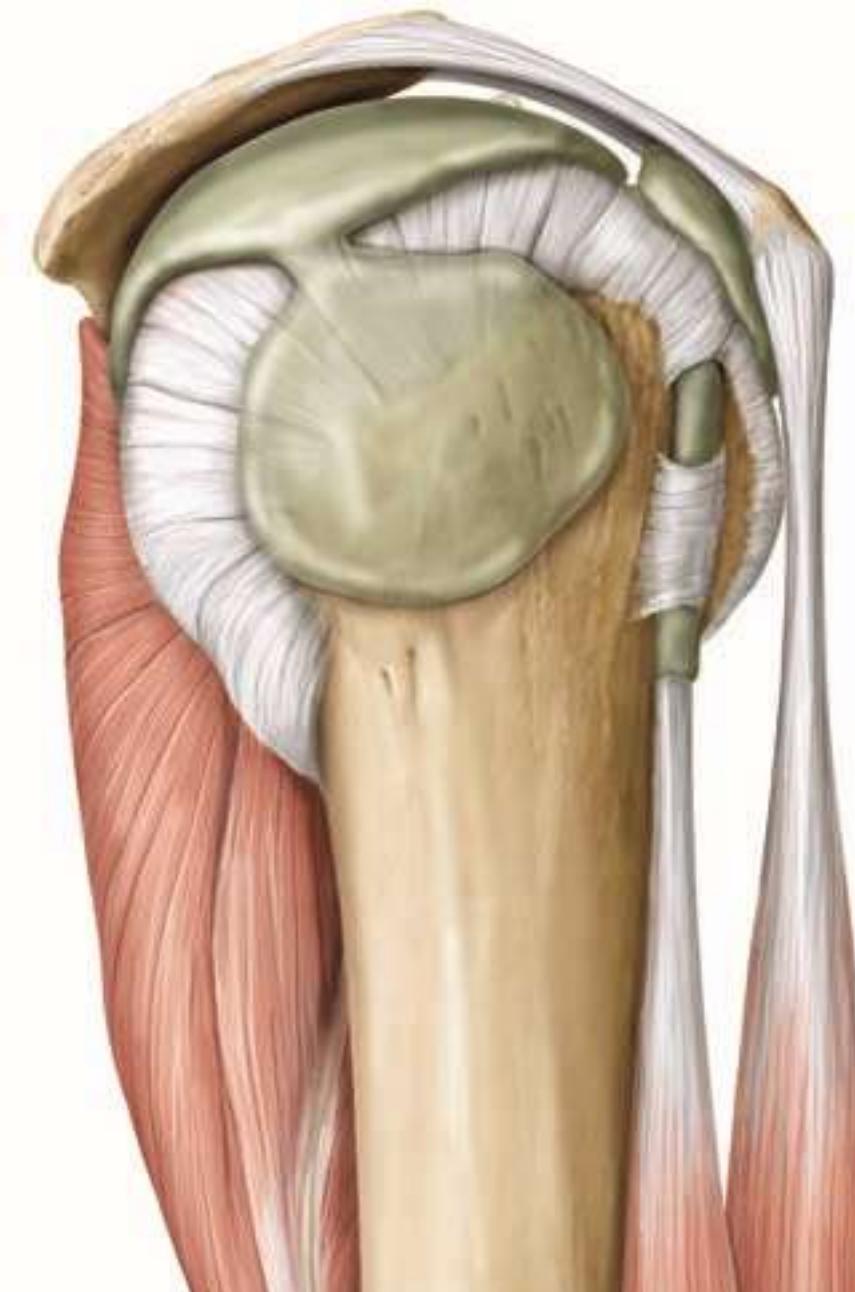
Bursae mucosae omae

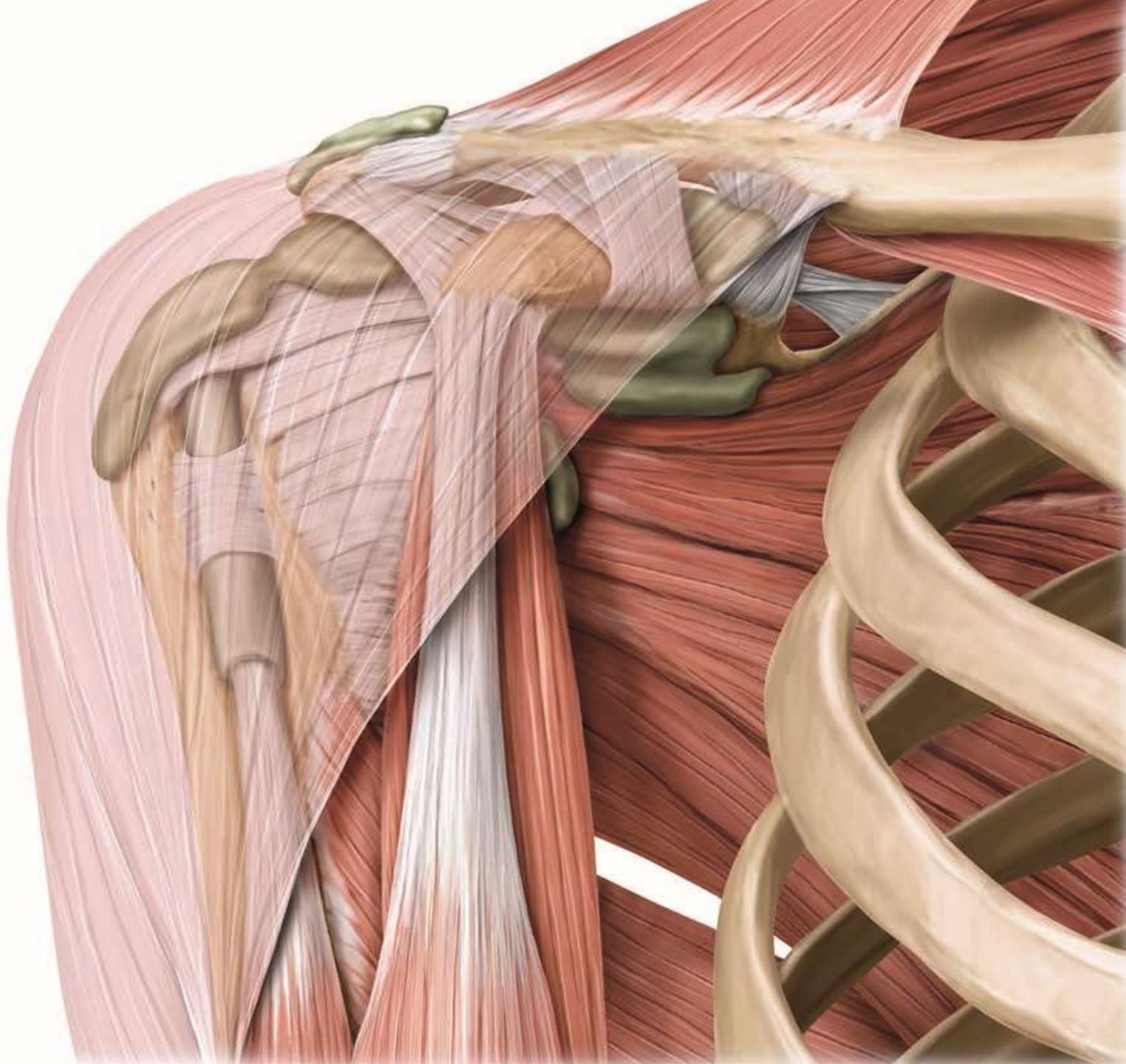


- Cavitas glenoidalis
- Labrum glenoidale
- Tendo m. bicipitis (caput longum)
- Capsula articularis
- Musculi
- Bursae
 - *Bursae subacromialis /subdeltoida*
 - *Bursa m. subscapularis*
 - *Bursa m. infraspinatis*

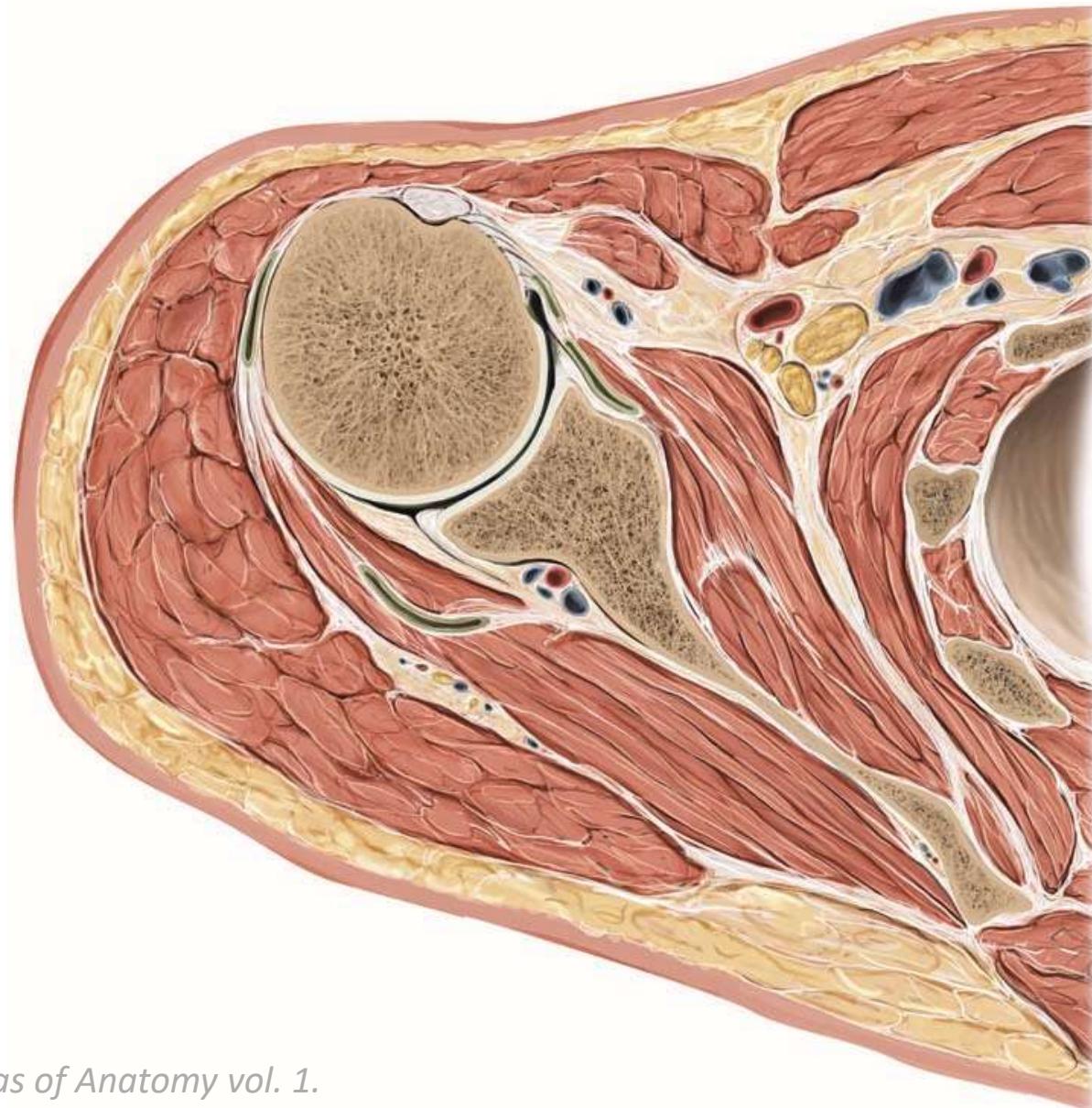


Thieme Atlas of Anatomy vol. 1.





Axilla



Axilla

- ♦ **Nervi, arteriae et venae, vasa lymphatica et nodi lymphatici**

- ♦ Vstup - *clavicula, costa l. , scapula*

- ♦ **Přední stěna**

- ♦ *m. pecroralis major et minor*

- ♦ **Mediální stěna**

- ♦ *hrudní stěna, m. serratus anterior*

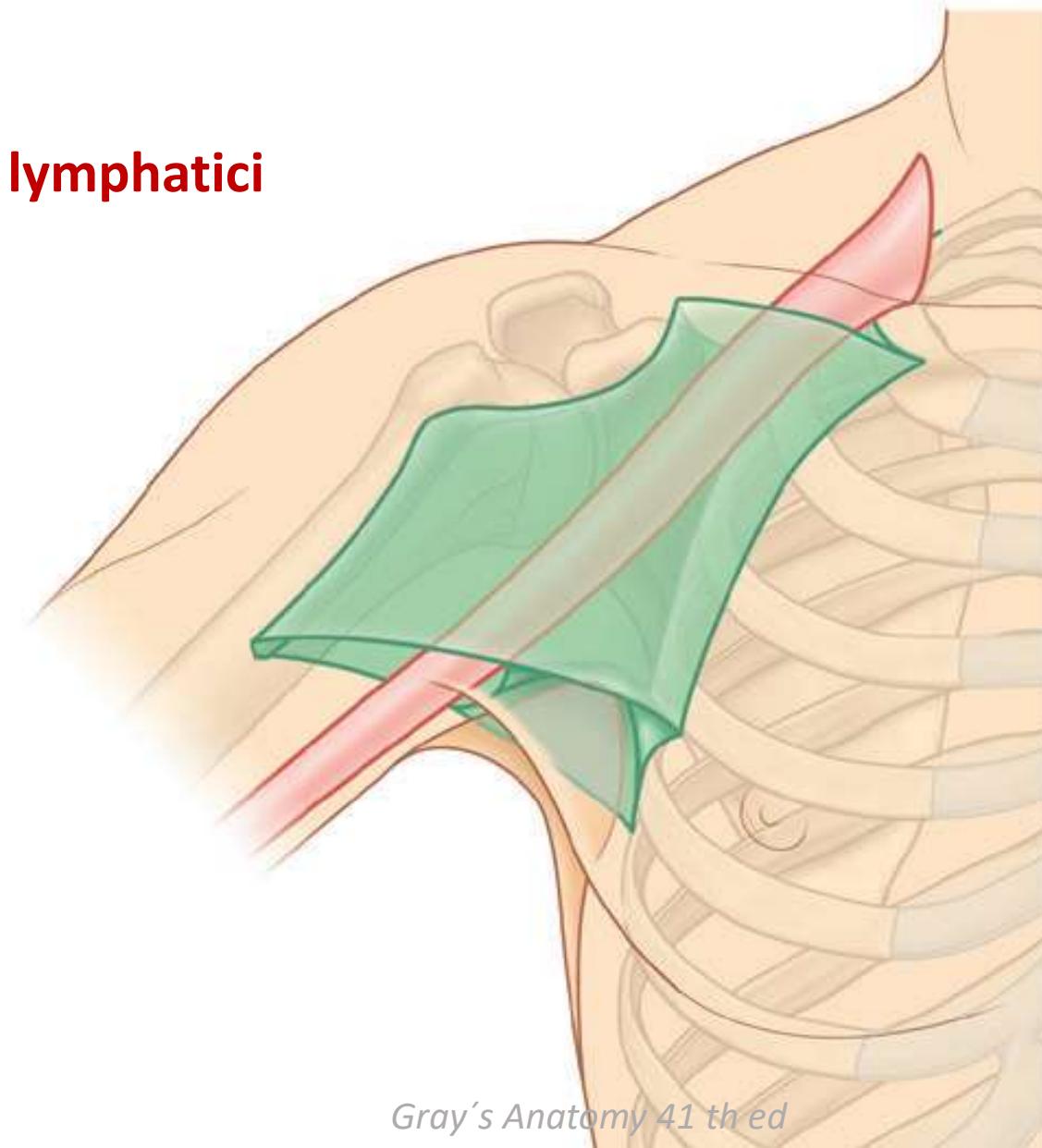
- ♦ **Zadní stěna**

- ♦ *m. subscapularis, m. teres major, m. latissimum dorsi*
 - ♦ *m. triceps brachii caput longum*

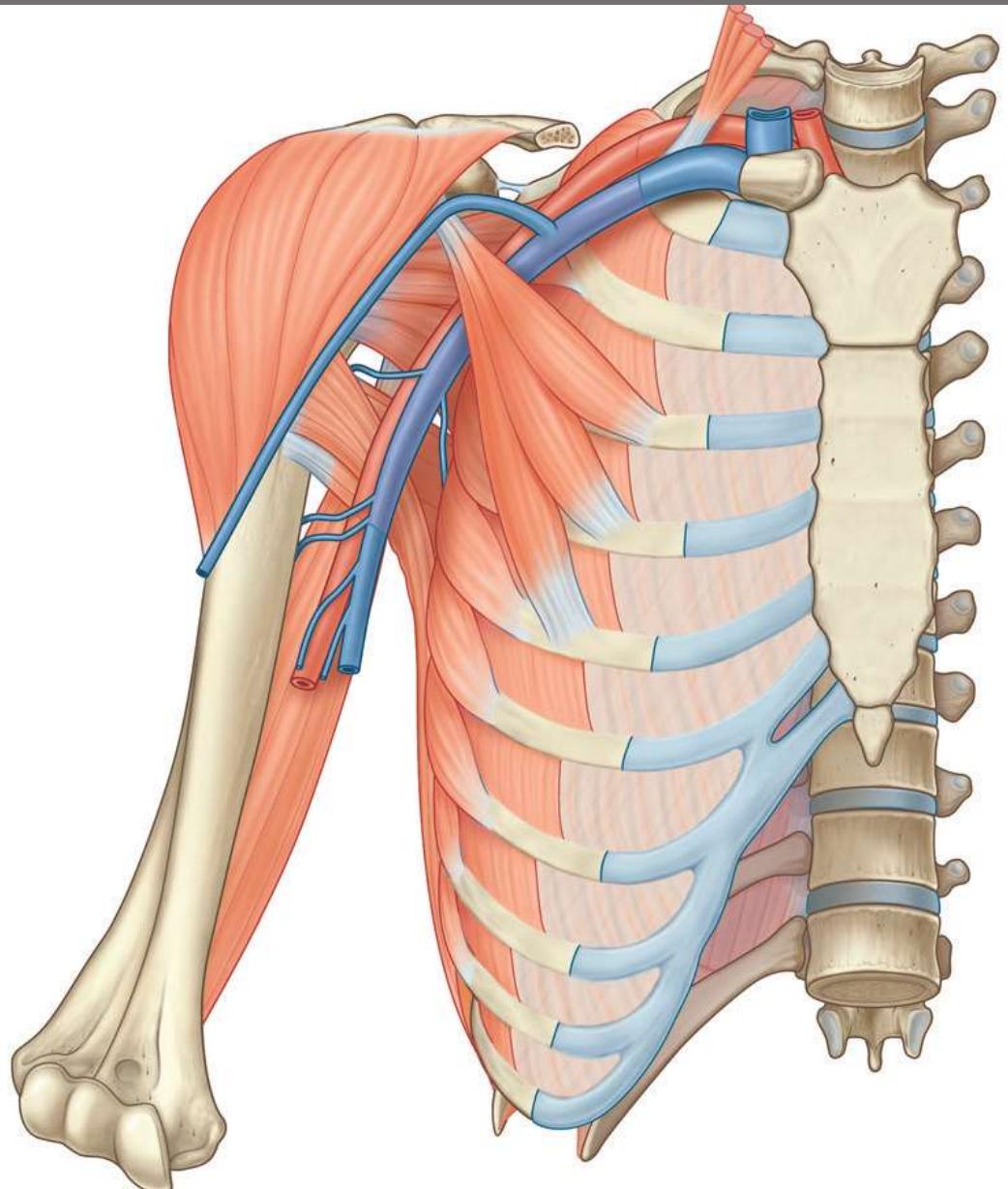
- ♦ **Laterální stěna**

- ♦ *Sulcus intertubercularis*

- ♦ **Dno - kožní kryt axily**



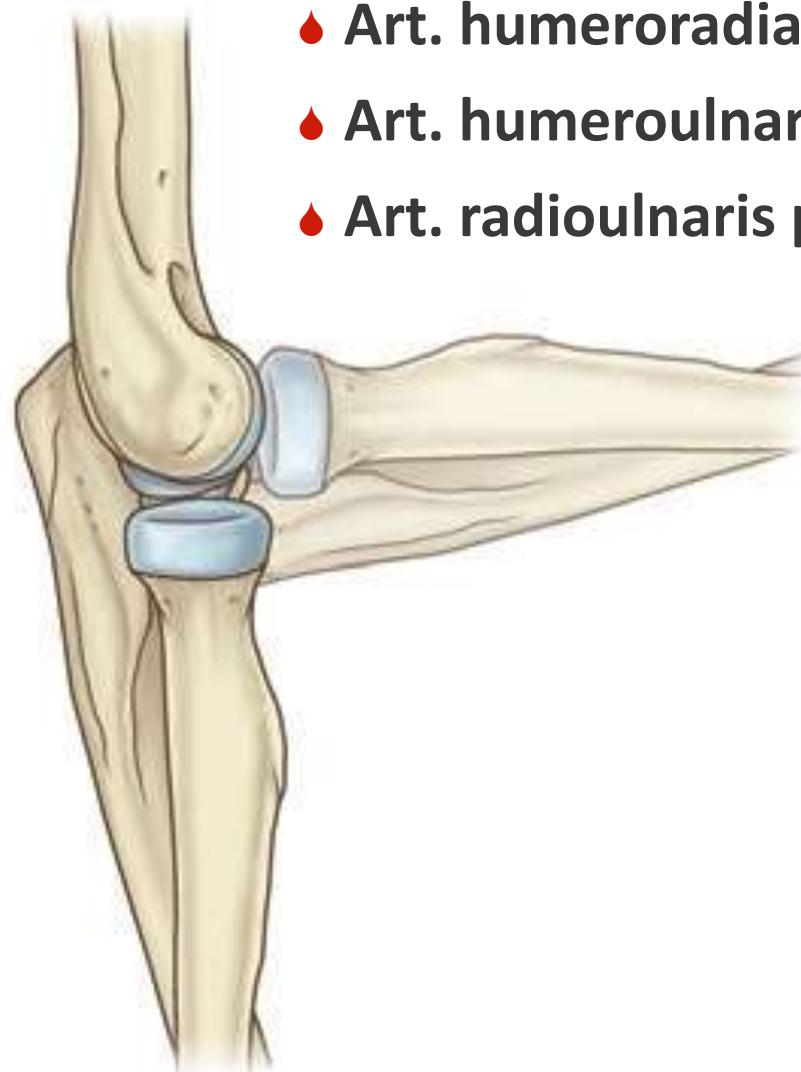
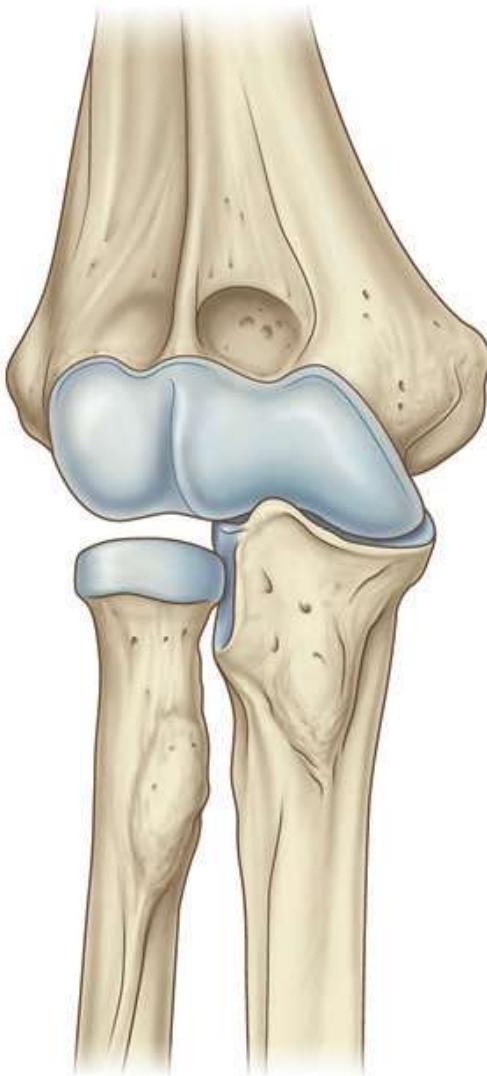
Axilla



- ❖ **Vena axillaris**
- ❖ **Arteria axillaris**
- ❖ **Nodi lymphatici**
 - ❖ I nodi humerales + pectorales,
 - ❖ II - nodi centrales
 - ❖ III - nodi apicales, infraclavicularis
- ❖ **Plexus brachialis**
 - ❖ **Horní část - divisiones**
 - ❖ Přední a zadní oddíl
 - ❖ **Střední část - fasciculi**
 - ❖ medialis, lateralis, posterior
 - ❖ **Dolní část - nervi**
 - ❖ N. musculocutaneus
 - ❖ N. radialis
 - ❖ N. medianus
 - ❖ N. ulnaris

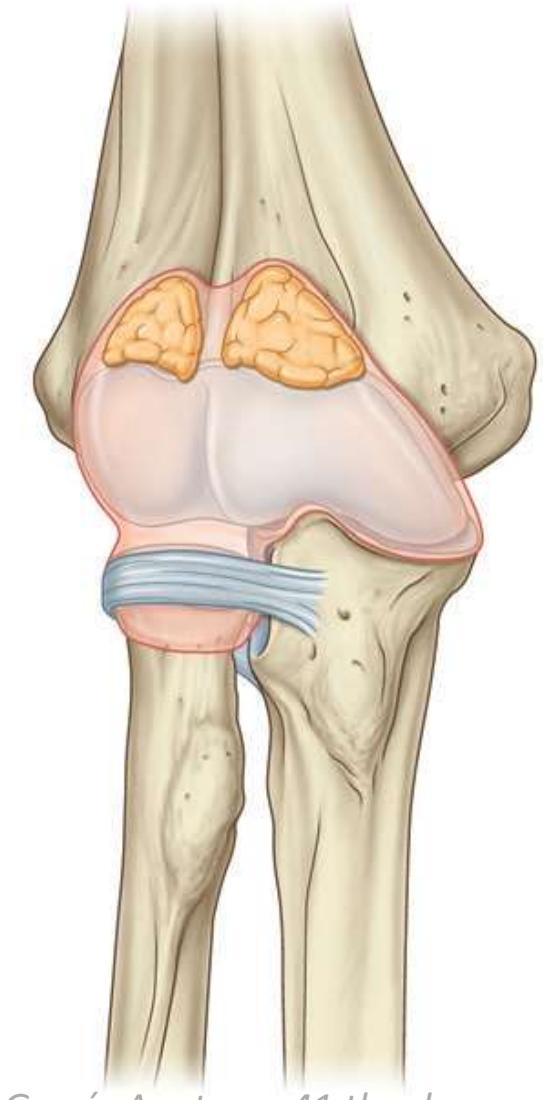
Art. cubiti

- Art. humeroradialis
- Art. humeroulnaris
- Art. radioulnaris proximalis



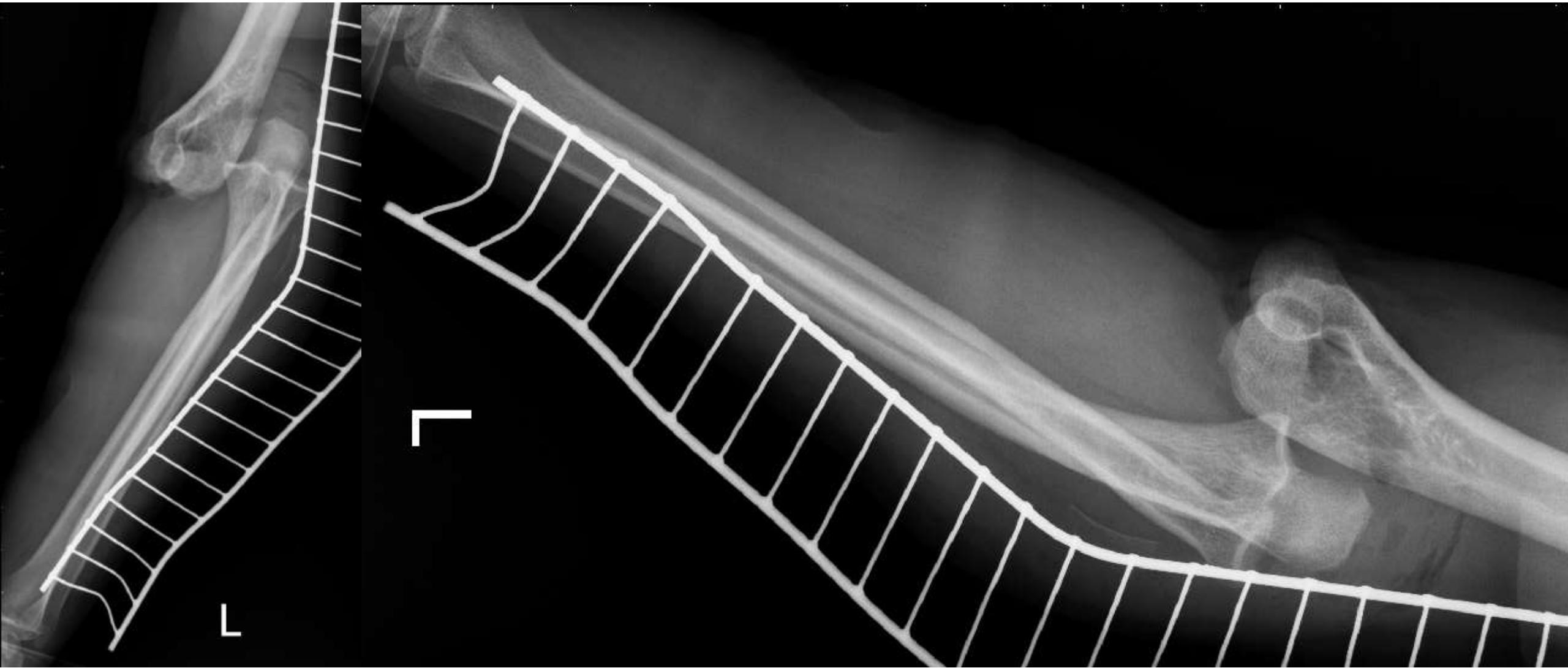
Art. cubiti

- ❖ Ligamentum collaterale radiale
 - ❖ Ligamentum collaterale ulnare
 - ❖ Ligamentum anulare radii
-
- ❖ Capsula articularis
 - ❖ Corpus adiposum

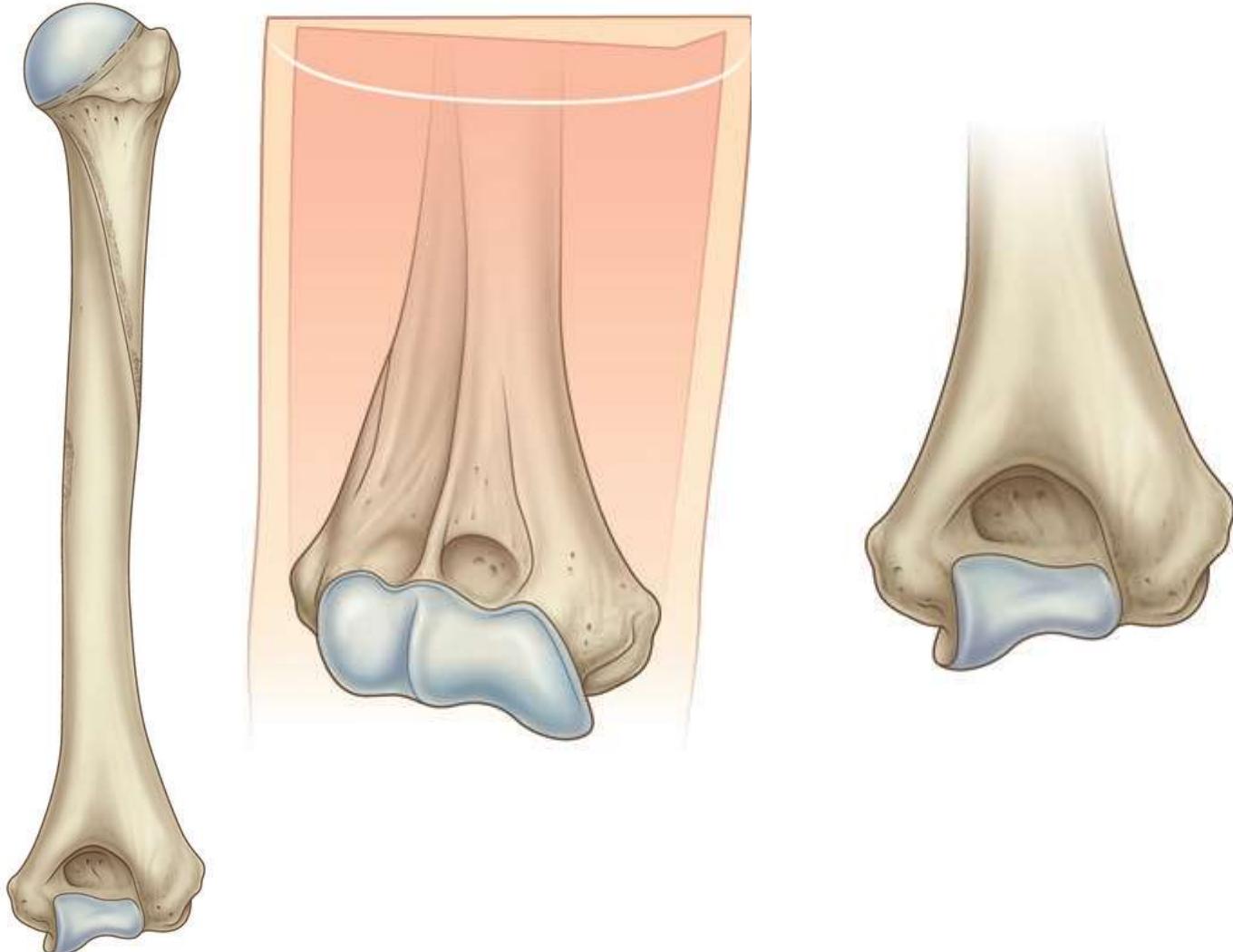




Luxace

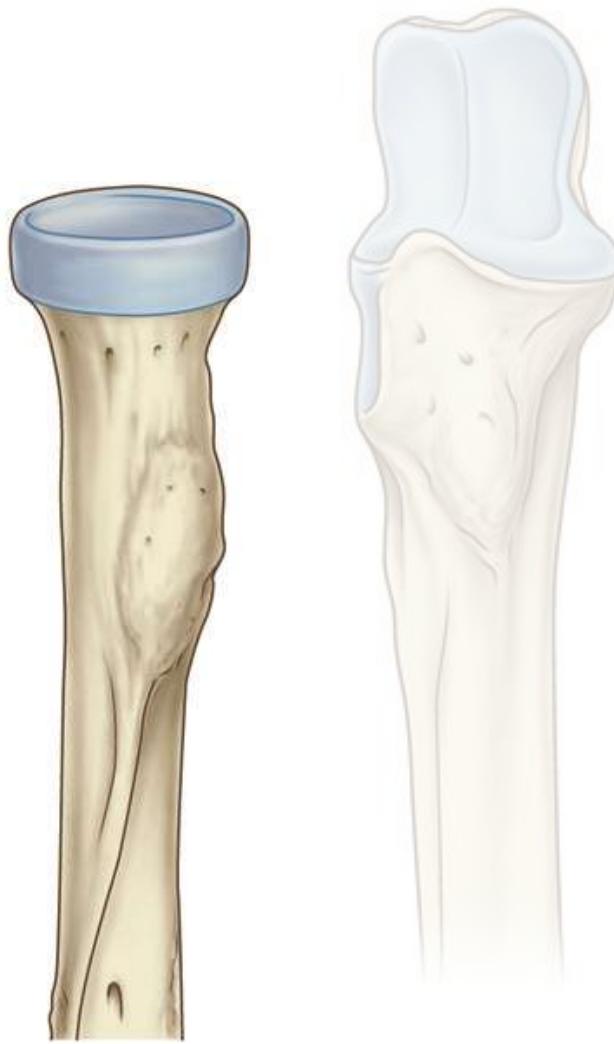


Distální část humeru



- ◆ Sulcus nervi radialis
- ◆ Condylus humeri
- ◆ Epicondylus humeri lateralis
- ◆ Epicondylus humeri medialis
- ◆ Capitulum humeri
- ◆ Fossa radialis
- ◆ Trochlea
- ◆ Fossa coronidea
- ◆ Fossa olecrani
- ◆ Sulcus nervi ulnaris

Radius a ulna



◆ Caput

- ◆ Fovea radii
 - ◆ *Capitulum humeri*
- ◆ Circumferentia articularis
 - ◆ *Incissura radialis*

◆ Collum radii

◆ Tuberositas radii

- ◆ *M. biceps brachii*

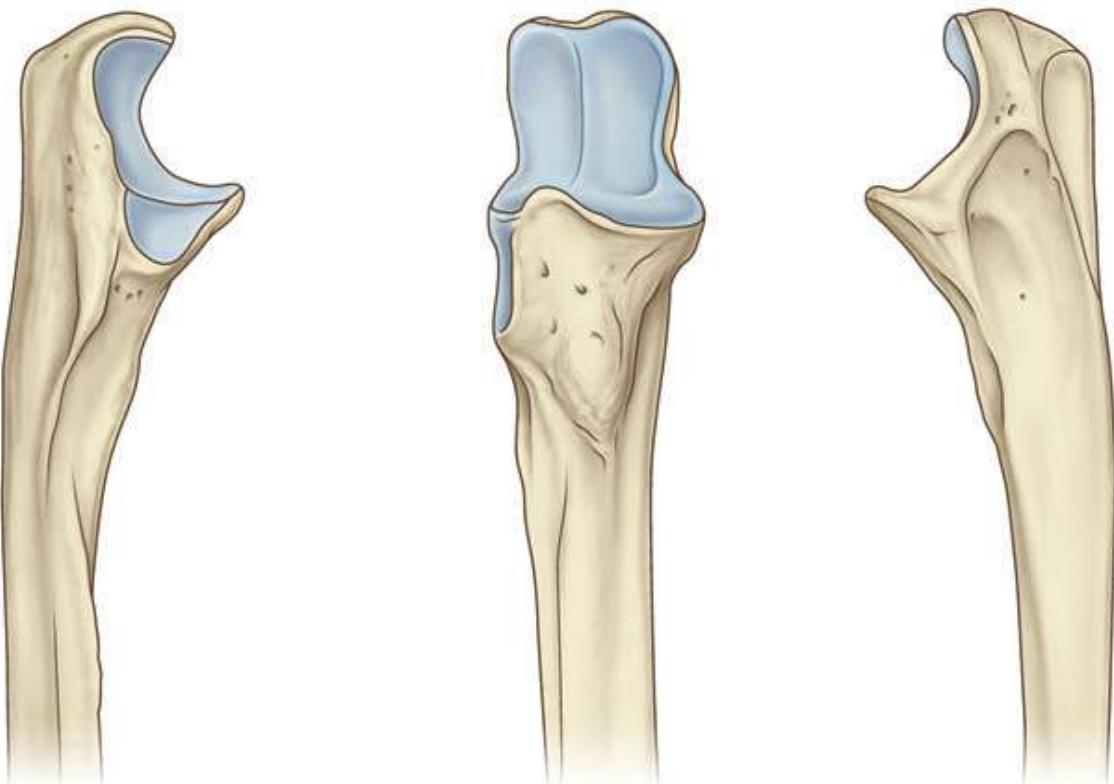
◆ Linea obliqua

◆ Margo interosseus

- ◆ *Membrana interossea*

◆ Foramen nutricium

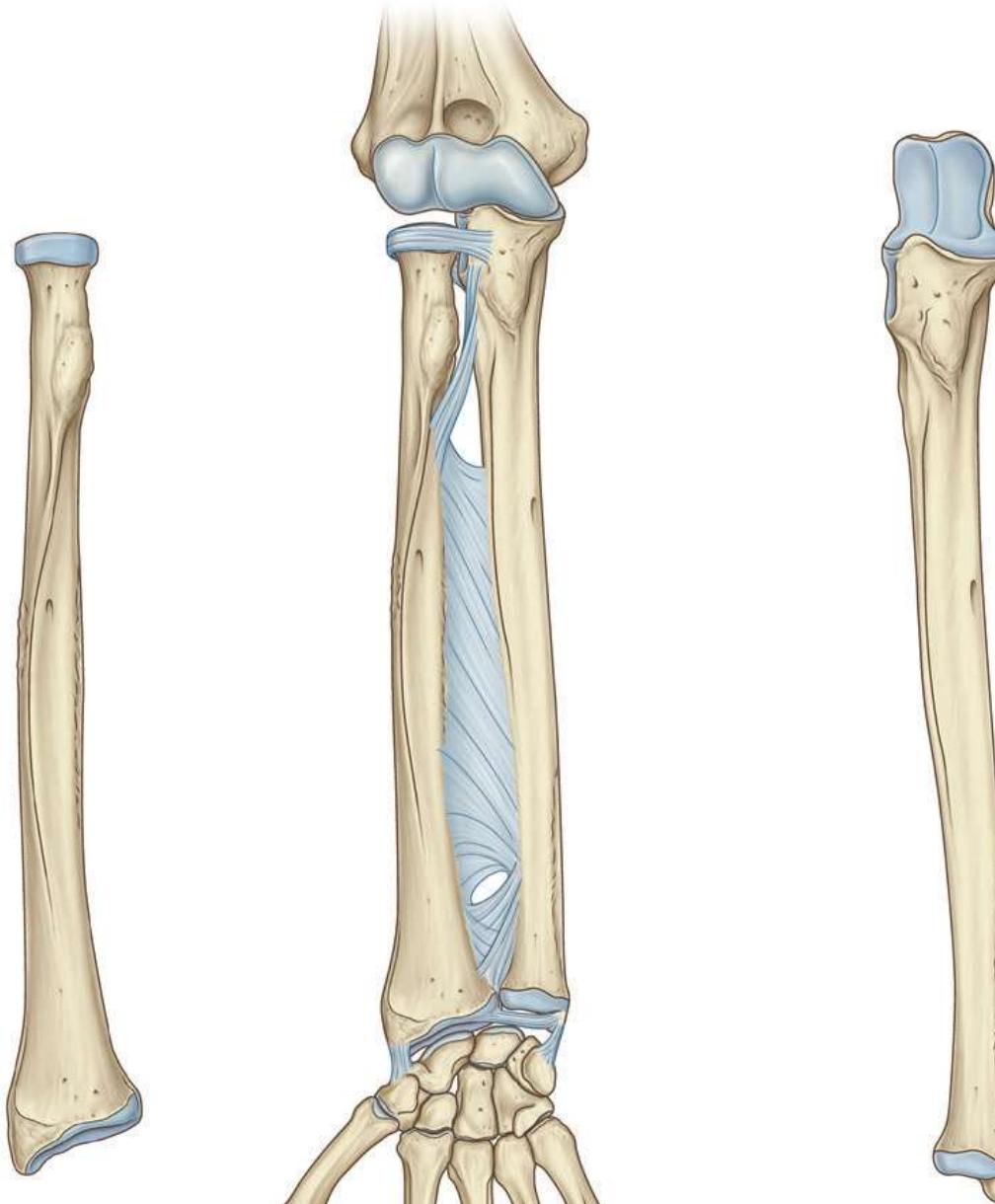
Radius a ulna



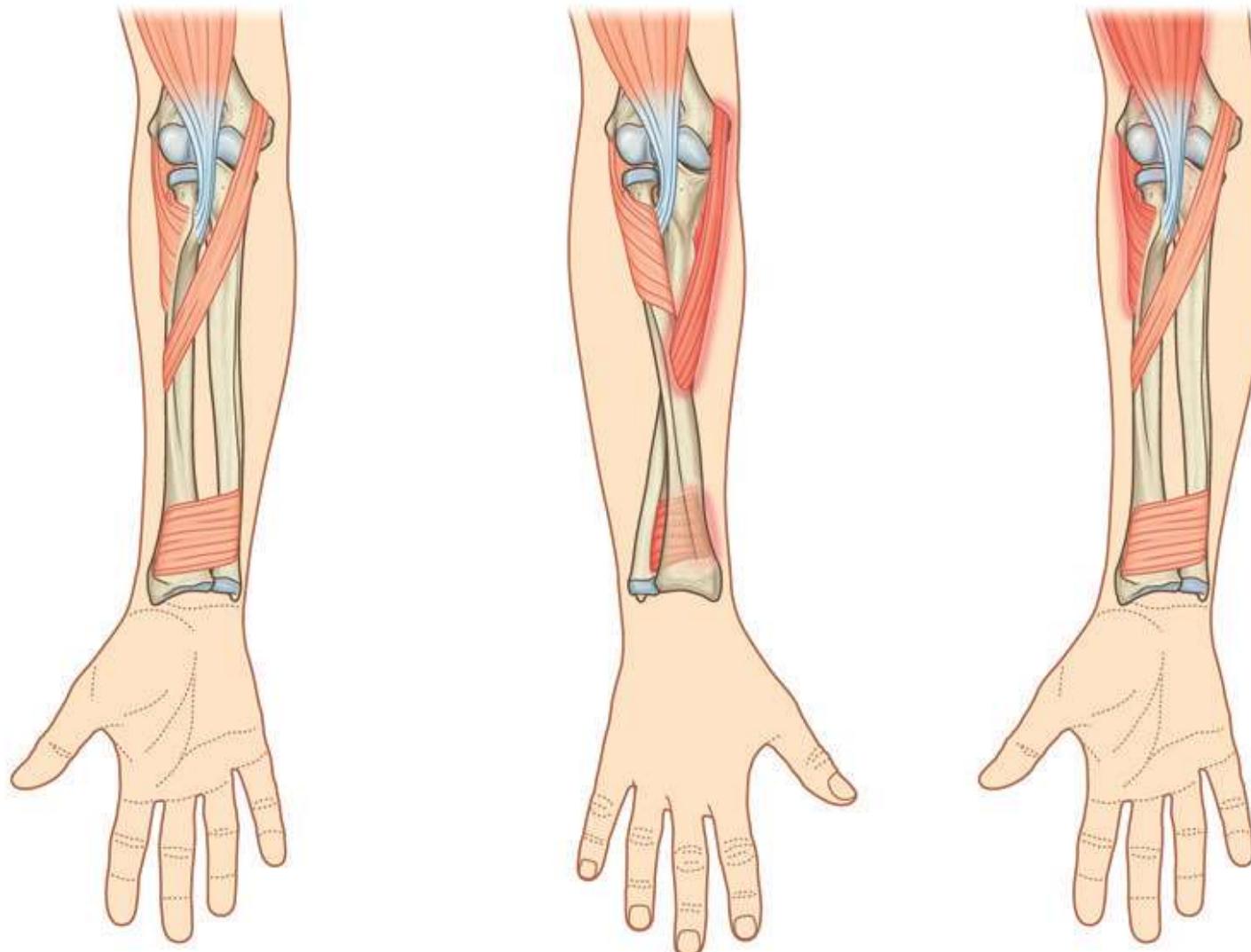
- ❖ **Olecranon**
 - ❖ *M. triceps brachii*
- ❖ **Processus coronoideus**
- ❖ **Incissura trochlearis humeri**
 - ❖ *Trochlea humeri*
- ❖ **Incissura radialis**
 - ❖ *Circumferentia articularis radii*
- ❖ **Tuber ositas ulnaris**
 - ❖ *M. brachialis*
- ❖ **Foramen nutricium**
- ❖ **Crista m. supinatoris**
- ❖ **Margo inteterosseus**
 - ❖ *membrana interossea*

Antebrachium

- ❖ Ulna
- ❖ Radius
- ❖ Chorda obliqua
- ❖ Membrana interossea
- ❖ Apertura a. interosseae



Pronace a supinace



- Rotace radia kolem ulny
- dva a dva svaly
- *M. pronator teres*
- *M. pronator quadratus*
- Kontrakce - pronace
- *M. supinator*
- *M. biceps brachii*
- Kontrakce - supinace

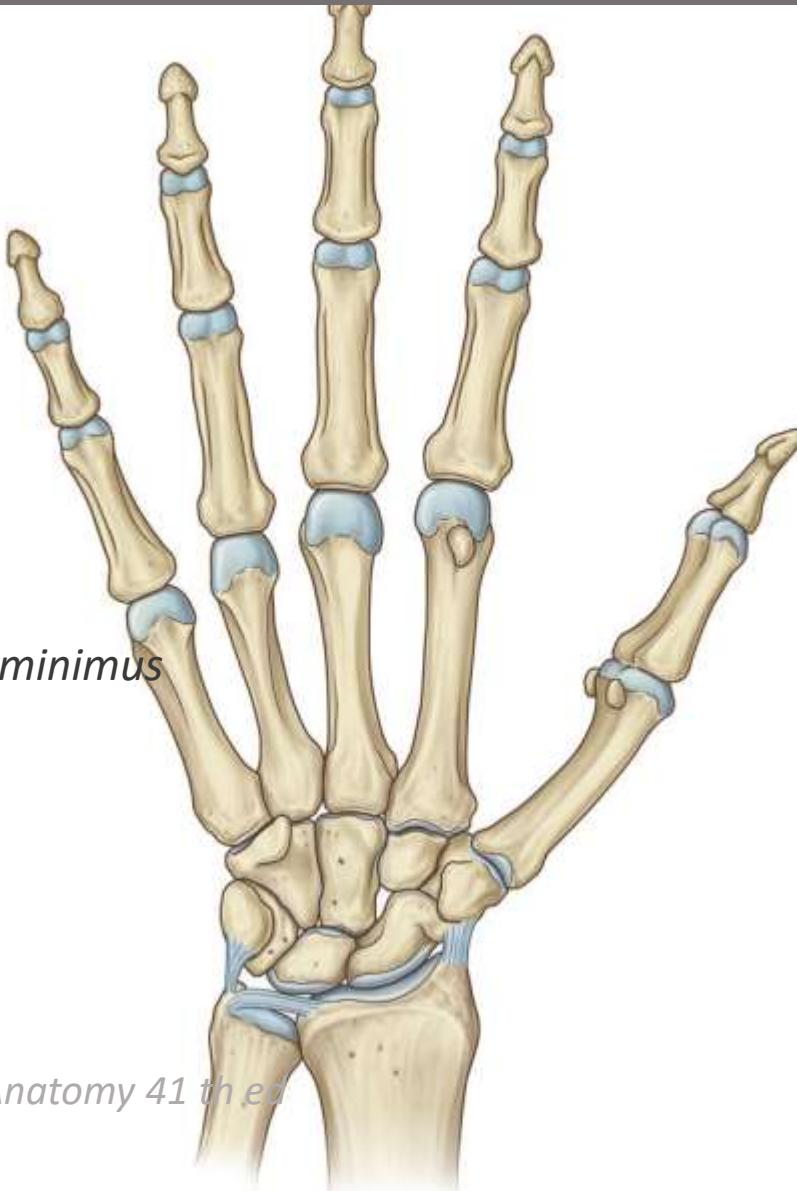
Carpus et manus

● Carpus

- *Ossa carpea (carpi)*
- *Metacarpi I. - V.*

● Manus

- *Pollex*
- *Digitii*
 - *index, medius, annularis, minimus*
- *Phalanges*
 - *Proximales*
 - *Mediae (II. - V.)*
 - *Distales*

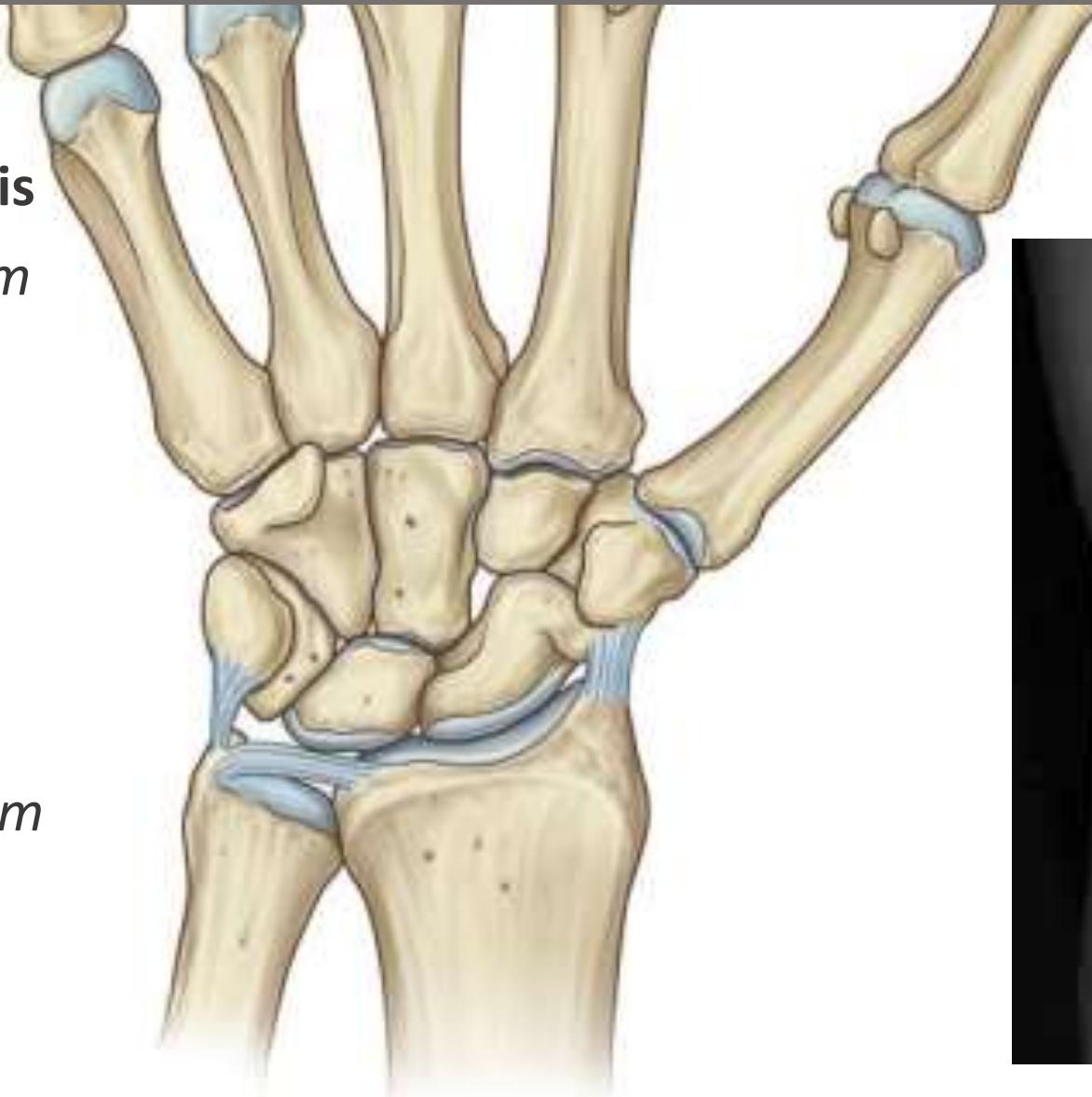


Gray's Anatomy 41 th ed



Ossa metacarpi

- ❖ Linea proximalis
- ❖ *Os scaphoideum*
- ❖ *Os lunatum*
- ❖ *Os triquetrum*
- ❖ *Os pisiforme*
- ❖ Linea distalis
- ❖ *Os trapezium*
- ❖ *Os trapezoideum*
- ❖ *Os capitatum*
- ❖ *Os hamatum*





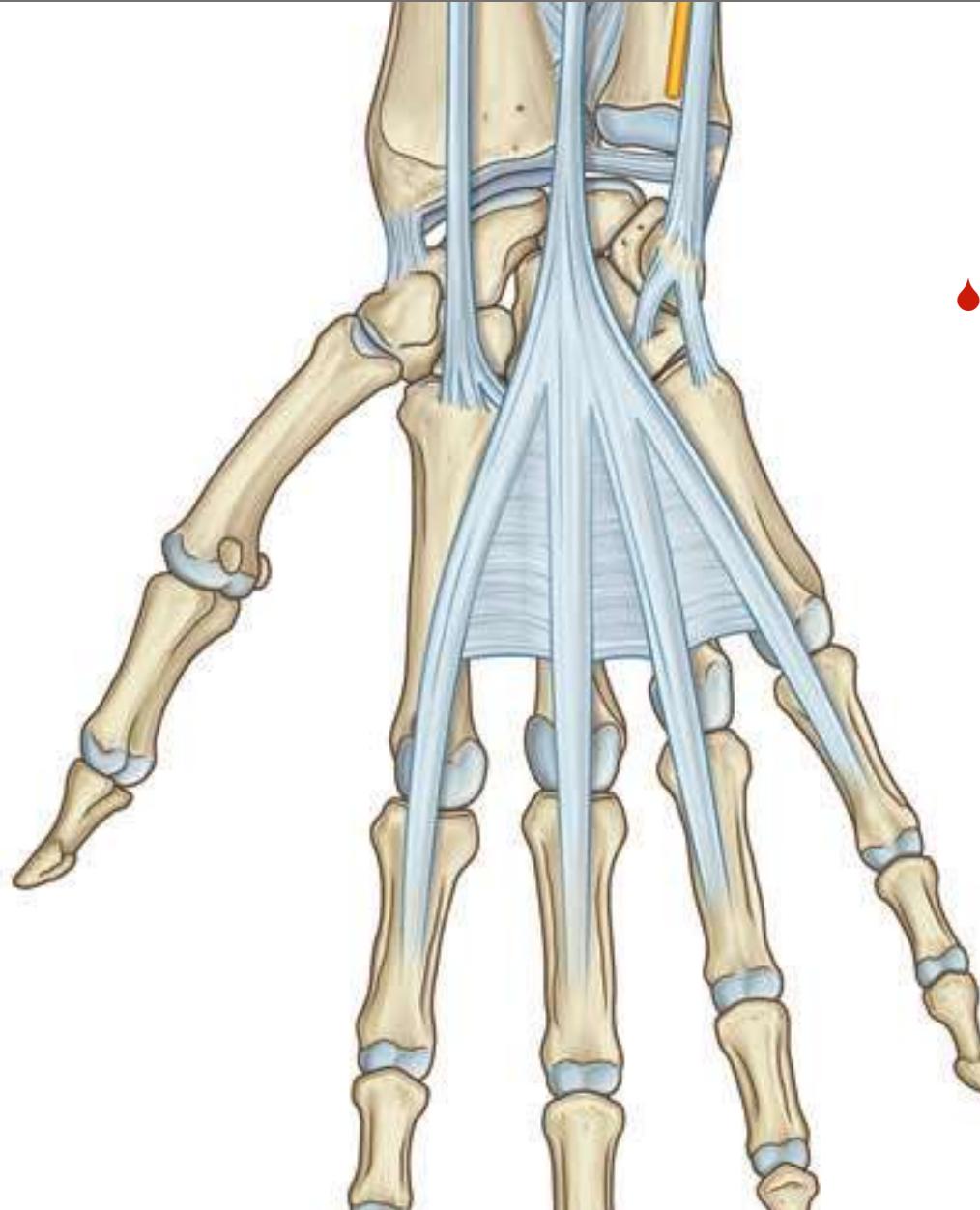


- ◆ **Linea proximalis**
- ◆ *Os scaphoideum*
- ◆ *Os lunatum*
- ◆ *Os triquetrum*
- ◆ *Os pisiforme*
- ◆ **Linea distalis**
- ◆ *Os trapezium*
- ◆ *Os trapezoideum*
- ◆ *Os capitatum*
- ◆ *Os hamatum*



- ◆ **Linea proximalis**
- ◆ *Os scaphoideum*
- ◆ *Os lunatum*
- ◆ *Os triquetrum*
- ◆ *Os pisiforme*
- ◆ **Linea distalis**
- ◆ *Os trapezium*
- ◆ *Os trapezoideum*
- ◆ *Os capitatum*
- ◆ *Os hamatum*

Svalové úpony

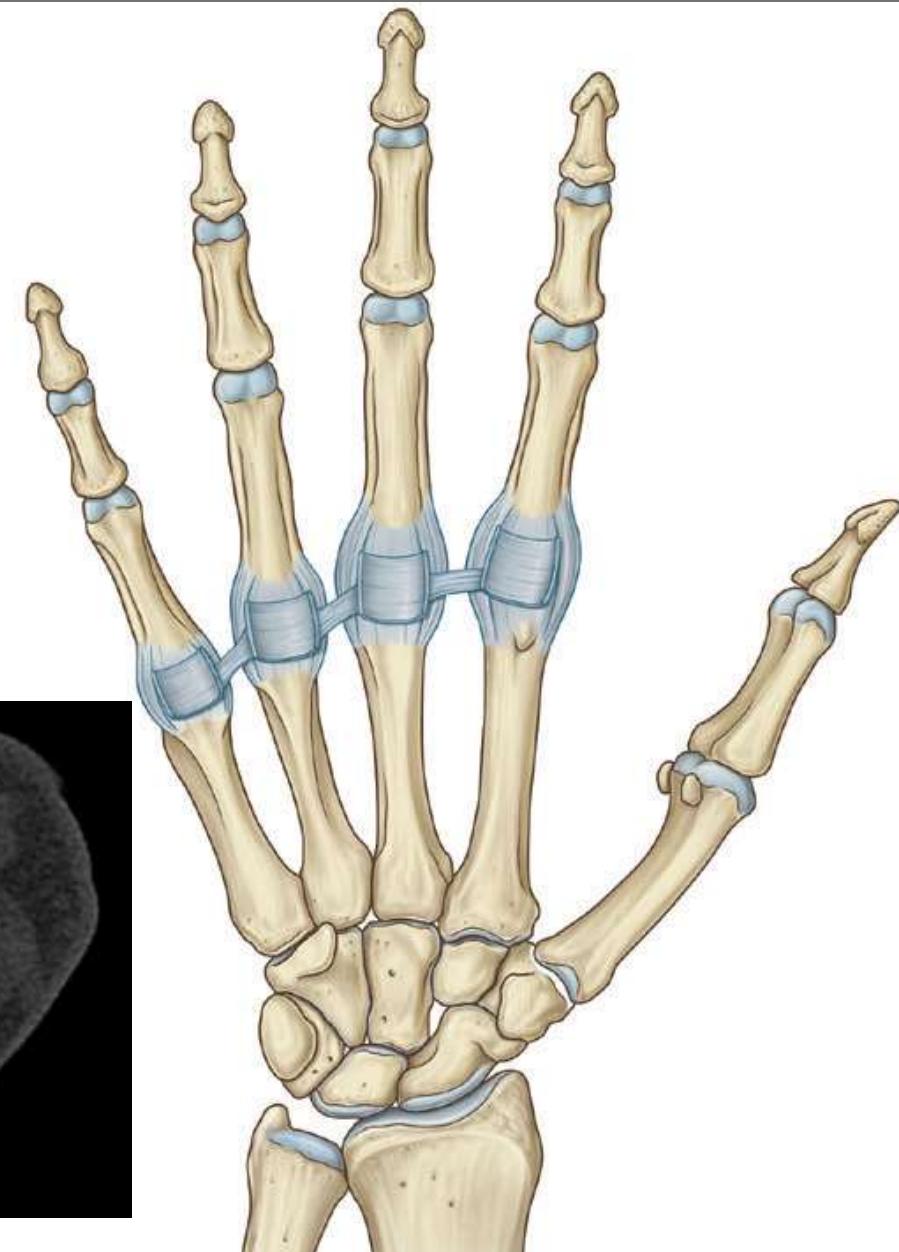
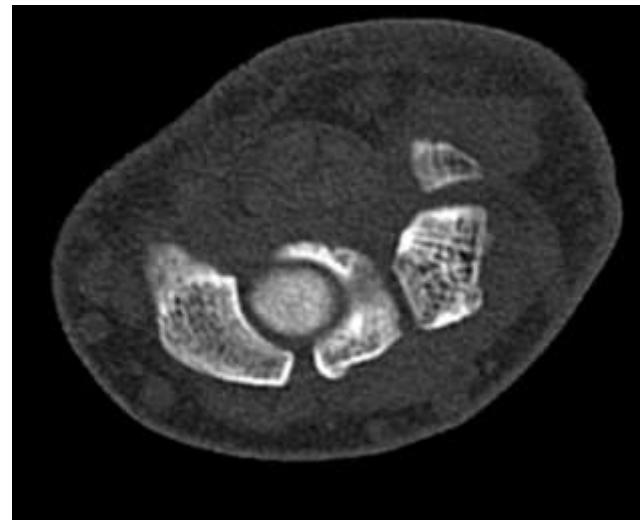


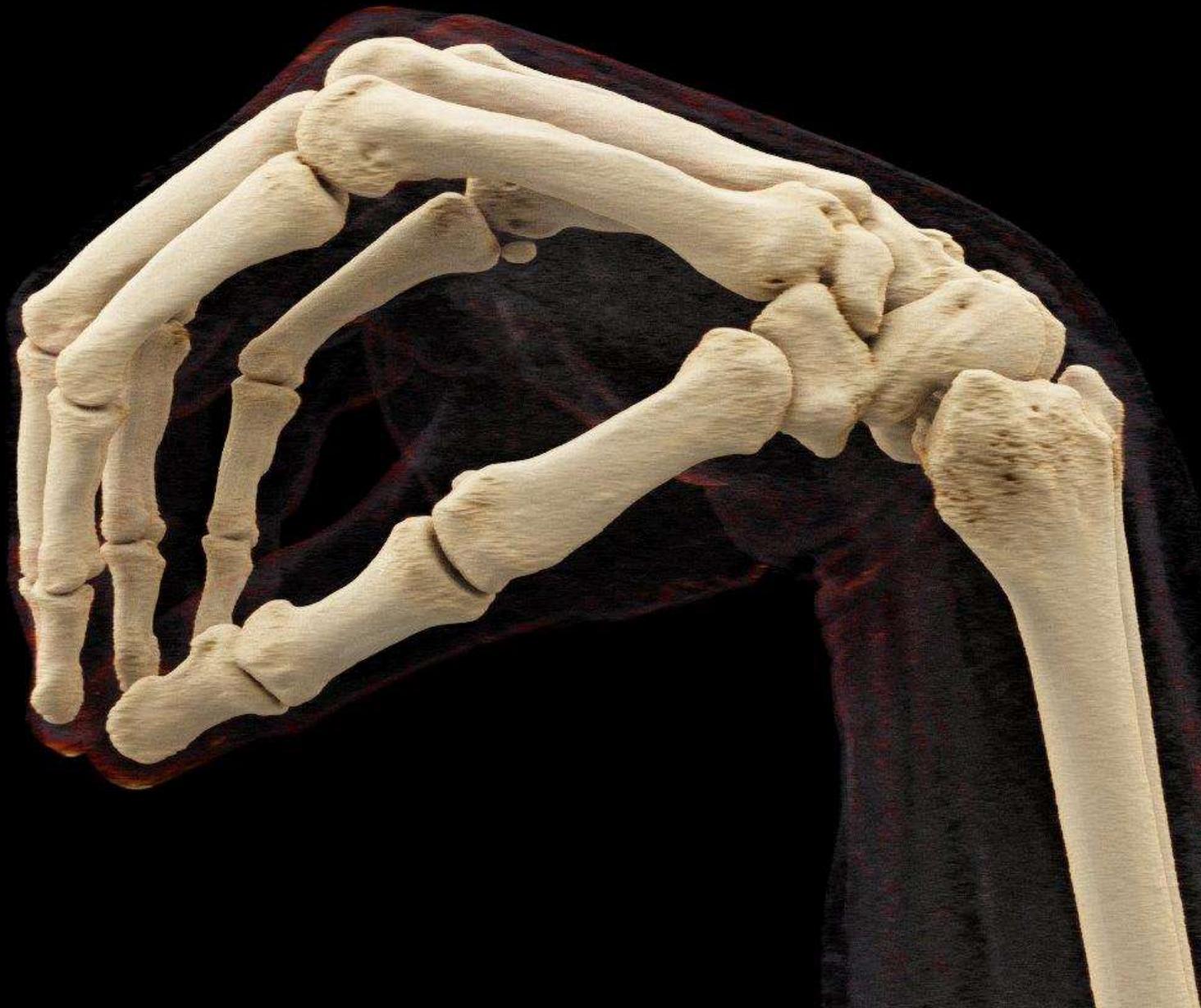
◆ *M. flexor carpi ulnaris*

- ◆ *Olecranon a dorsum ulnae*
- ◆ *Epiconylus medialis humeri*
- ◆ *Os pisiforme*
- ◆ *Lig. pisohamatum*
- ◆ *Lig. pisocarpeum*

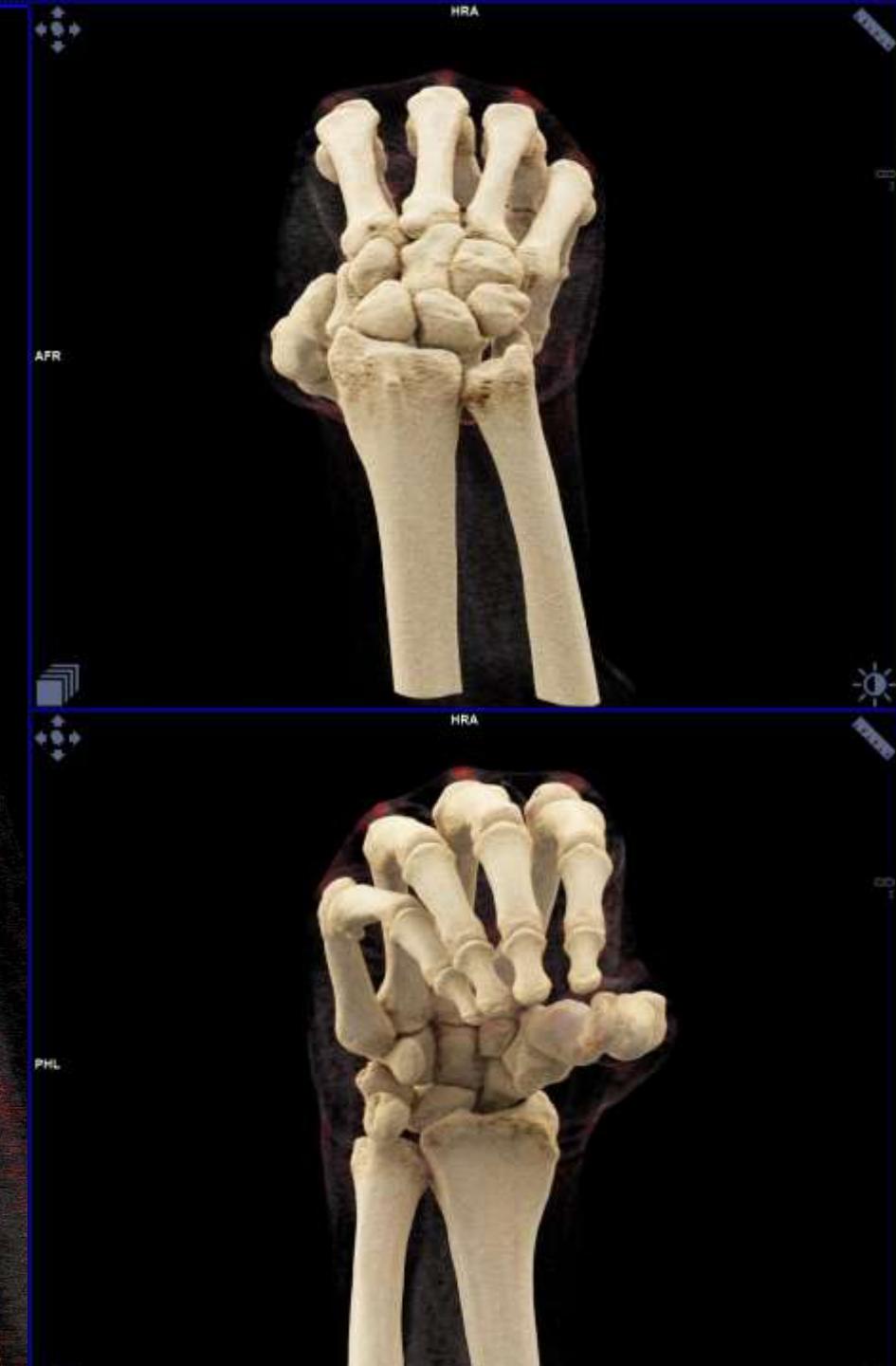
Articulationes carpi et manus

- ◆ Art. interphalangeales distales
- ◆ Art. interphalangeales proximales
- ◆ Art. carpometacarpea pollicis (sellaris)
 - ◆ Lig. collateralia
- ◆ Art. carpometacarpeae II-V (amphiarthrosis)
 - ◆ Ligg. palmares (*laminae firocartilagineae palmares*)
 - ◆ Lig. collateralia
 - ◆ Lig. metacarpalia transversa profunda
- ◆ Art. mediocarpea (art. spheroidea)
 - ◆ Lig. intercarpalia
- ◆ Art. radiocarpea- discus
- ◆ Art. radioulnaris distalis
 - ◆ Radius - *incissura ulnaris*





H



AFR

HRA

PHL

HRA



Retinaculum flexorum

► Spojení laterálního a mediálního hřebene karpu

- ◆ *Tuberculum ossis trapezii*
- ◆ *Os pisiforme*
- ◆ *U - prostor*

► Pod retinakulem

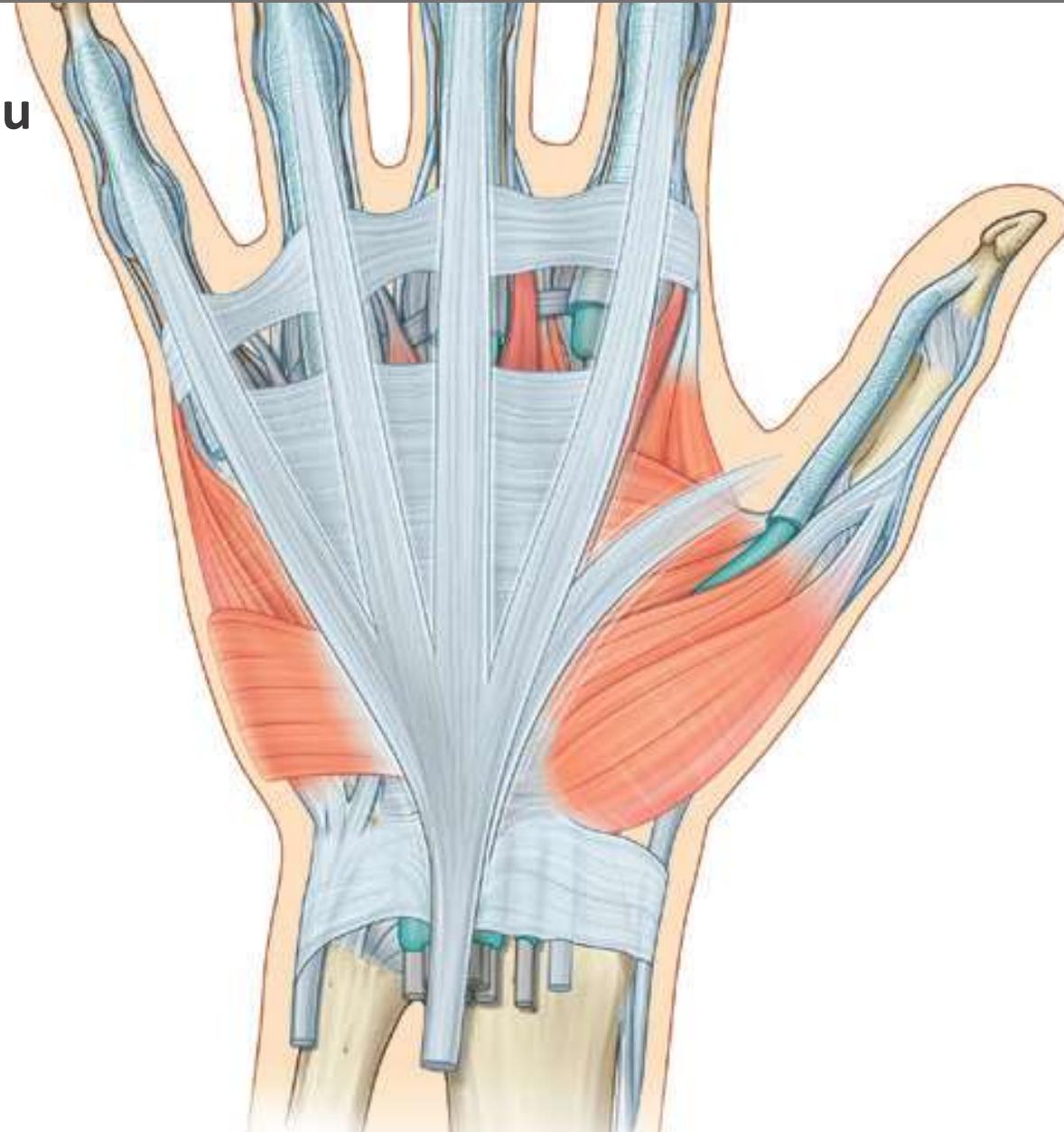
- ◆ *N. medianus*
- ◆ *Mm. flexores digitorum superf. et prof. (T)*
- ◆ *M. flexor pollicis longus (T)*

► V retinakulu

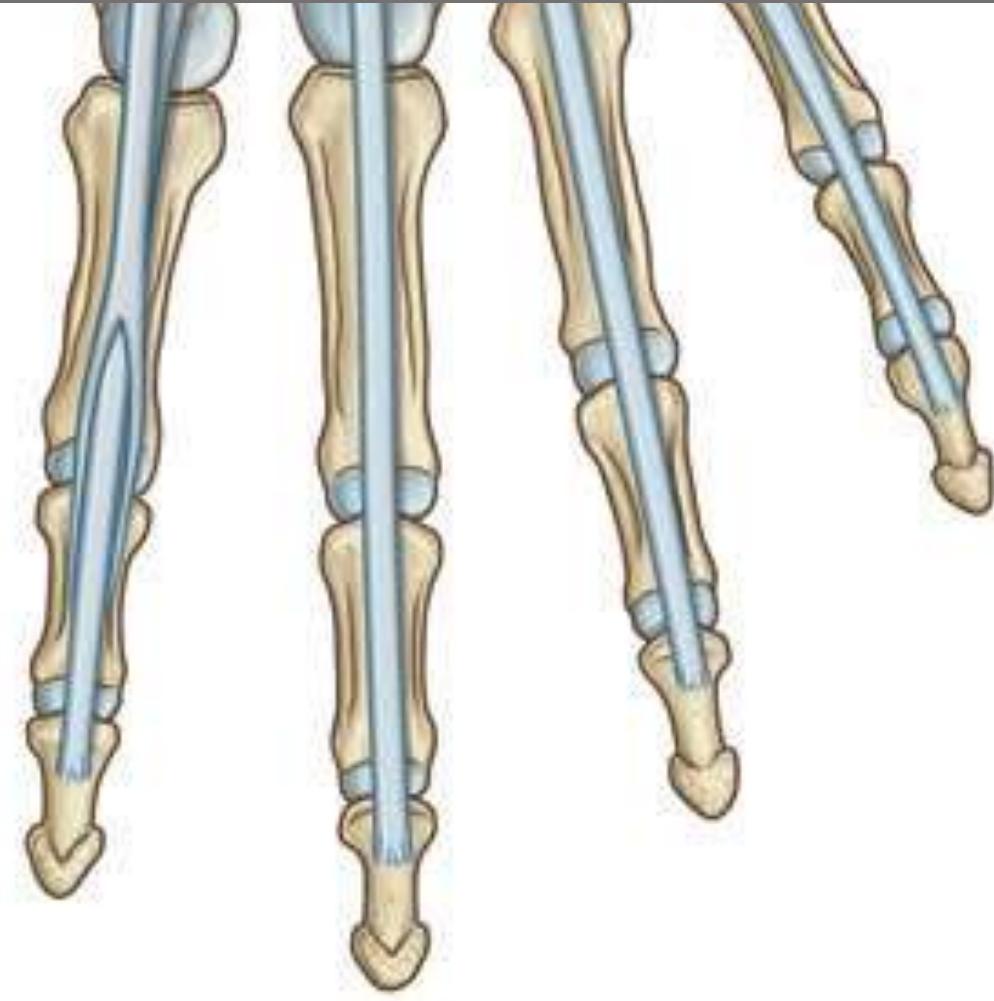
- ◆ *M. flexor carpi radialis (T)*

► Nad retinakulem

- ◆ *N. ulnaris*
- ◆ *A. ulnaris*
- ◆ *M. palmaris longus (T)*



mm. Flexores profundi et superficiales



M. flexor digitorum superficialis - phalanges medii II., III., IV., V.

M. flexor digitorum profundus - phalanges distales II., III., IV., V.

Palma manus

Aponeurosis palmaris

- Trojúhelníkovité ztluštění hluboké fascie
- Ukotvení k retinaculum flexorum
- Pokračování šlach *m. palmaris longus*
- Pod palmární fascií nervy a cévy

Fasciculi longitudinales

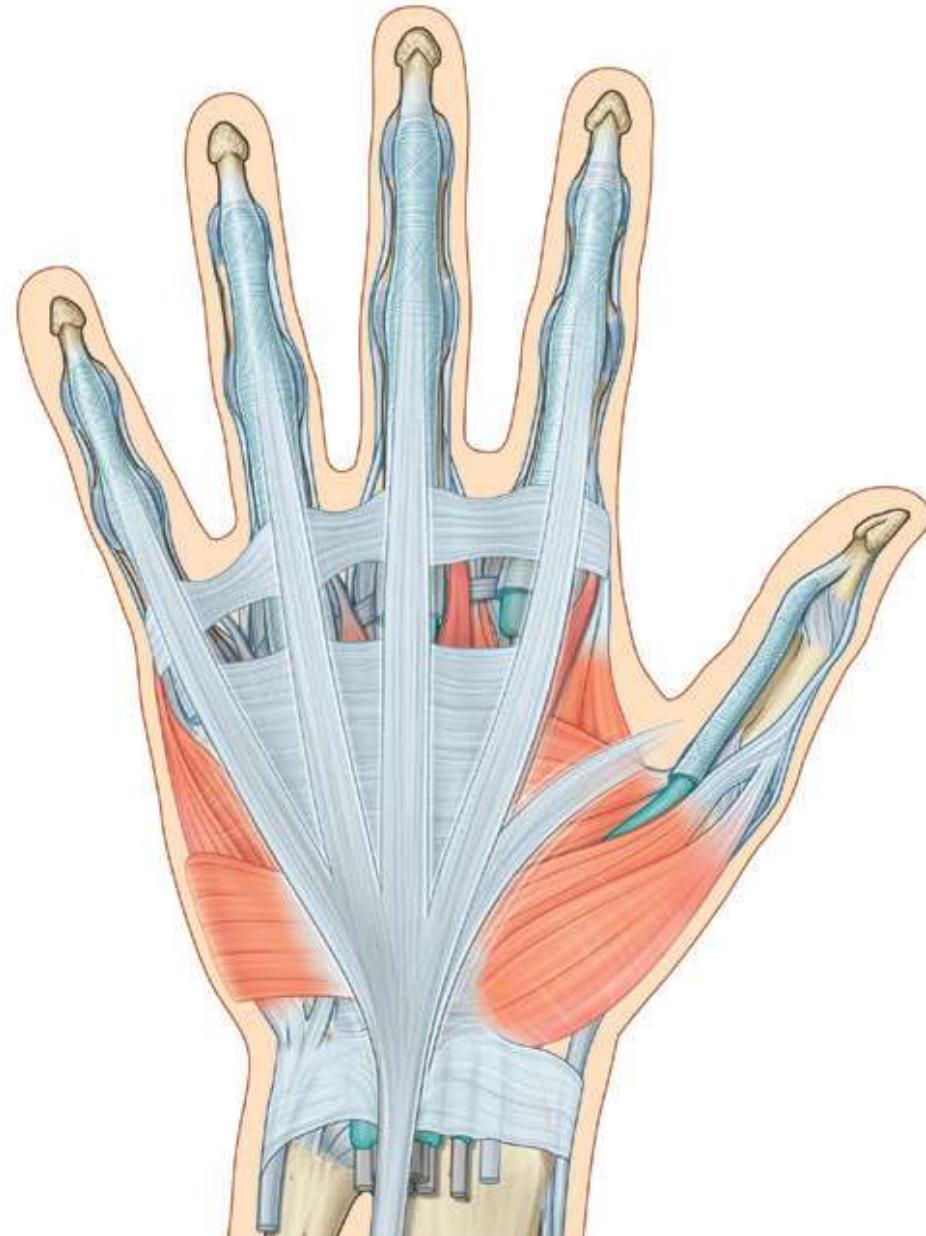
- Ukotvení do podkoží - střední část
- Ukotvení na dorsa prstů - postranní části

Fasciculi transversi

Fasciculi praetendinosi

M. palmaris longus - tendines

M. palmaris brevis - hypothenar



Vaginae tendineae manus

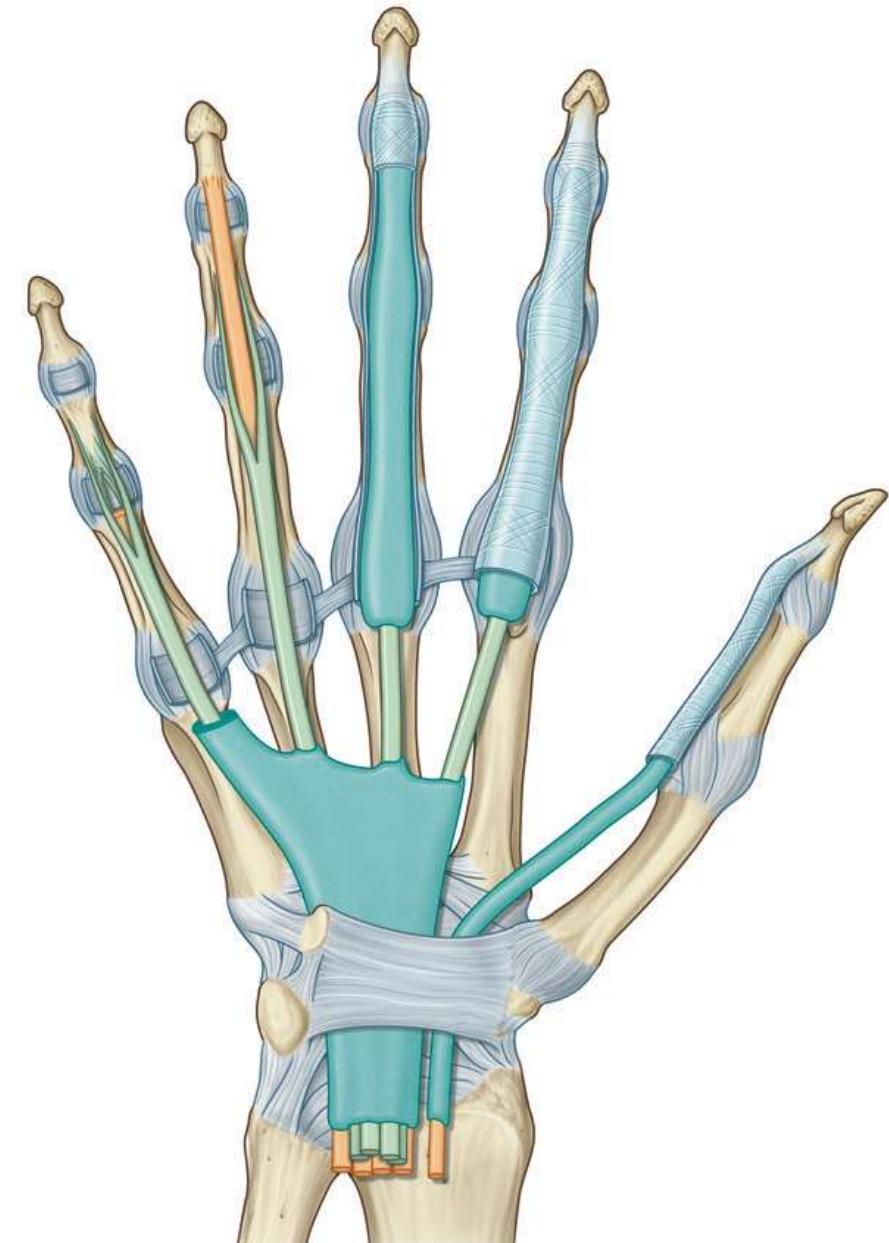
- ◆ Vagina synovialis mm. flexores
- ◆ Vagina synovialis m. flexoris pollicis
- ◆ Vagina synovialis digitorum

- ◆ Úpony šlach
- ◆ M. flexor digitorum superficialis

◆ Rozvětvení šlach - úpony ve středním článku

- ◆ M. flexor digitorum profundus

◆ Prochází rozvětvenou šlachou k distálnímu článku



Membrum superius 1

Prof. MUDr. Jiří Ferda, Ph.D.