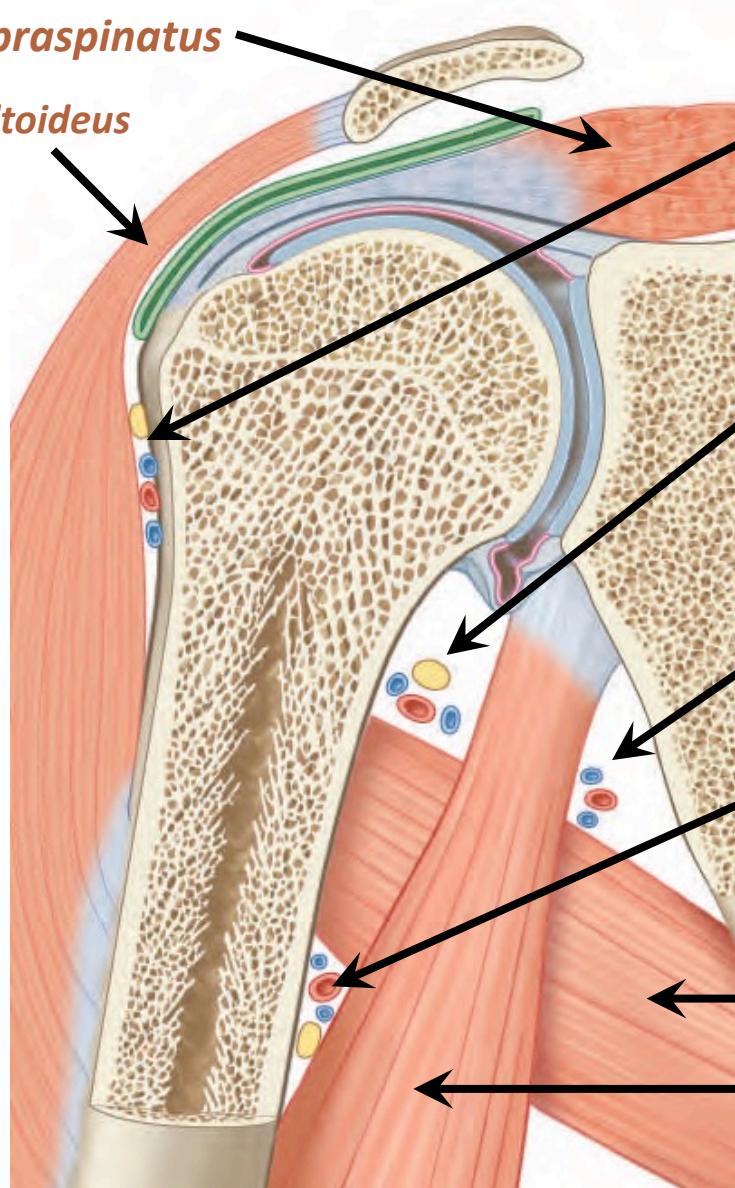


# Upper extremity – clinically important topography

# Articulatio glenohumeralis - glenohumeral joint

*m. supraspinatus*

*m. deltoideus*



Subdeltoid space: spatium subdeltoidea

Nervus axillaris

Arteria et vena circumflexa humeri posterior

Quadrilateral space: foramen humerotricipitale quadrilaterale

Nervus axillaris

Arteria et vena circumflexa humeri posterior

Trilateral space: foramen omotricipitale trilaterale

Vasa circumflexa scapulae

Interval trigon: intervalum trigonum

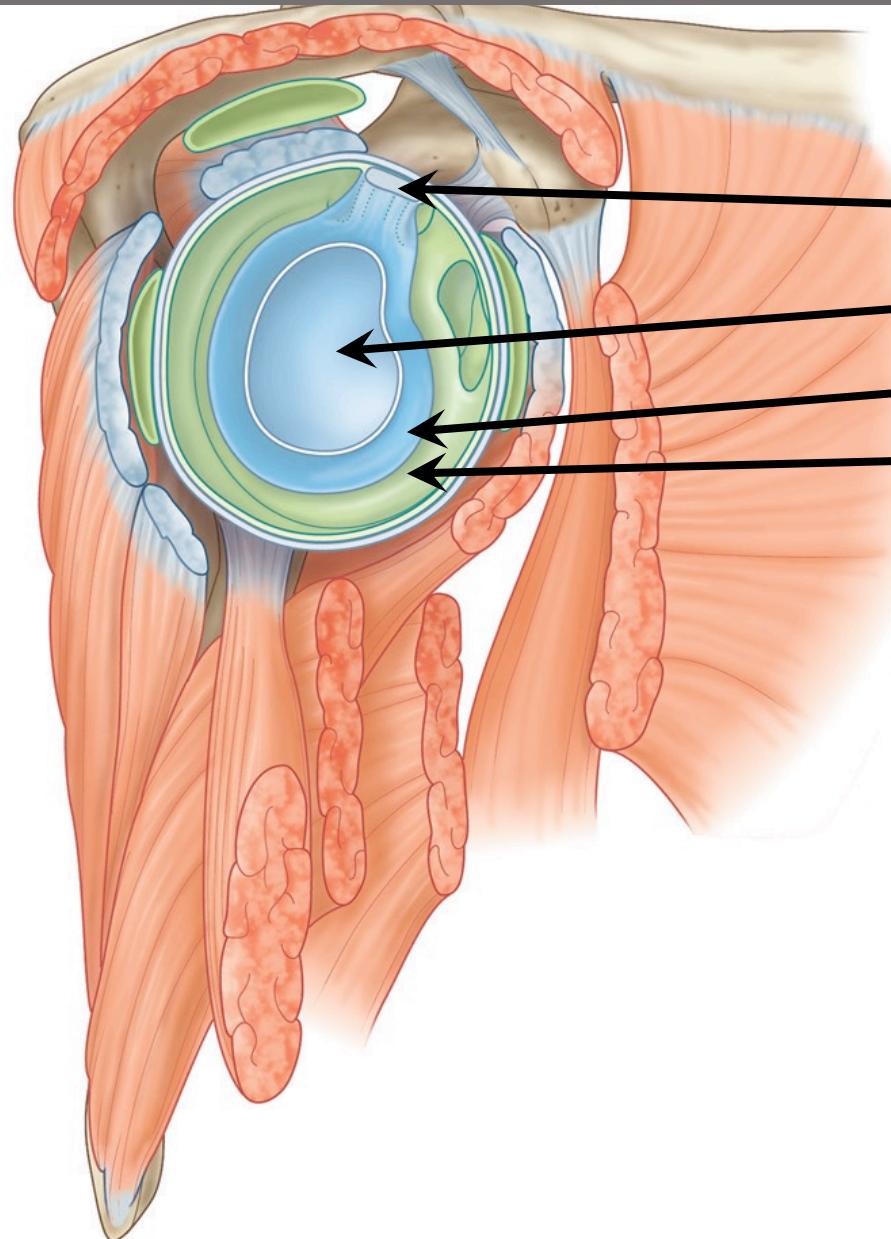
Nervus radialis

Arteria et vena brachialis profunda

*m. teres major*

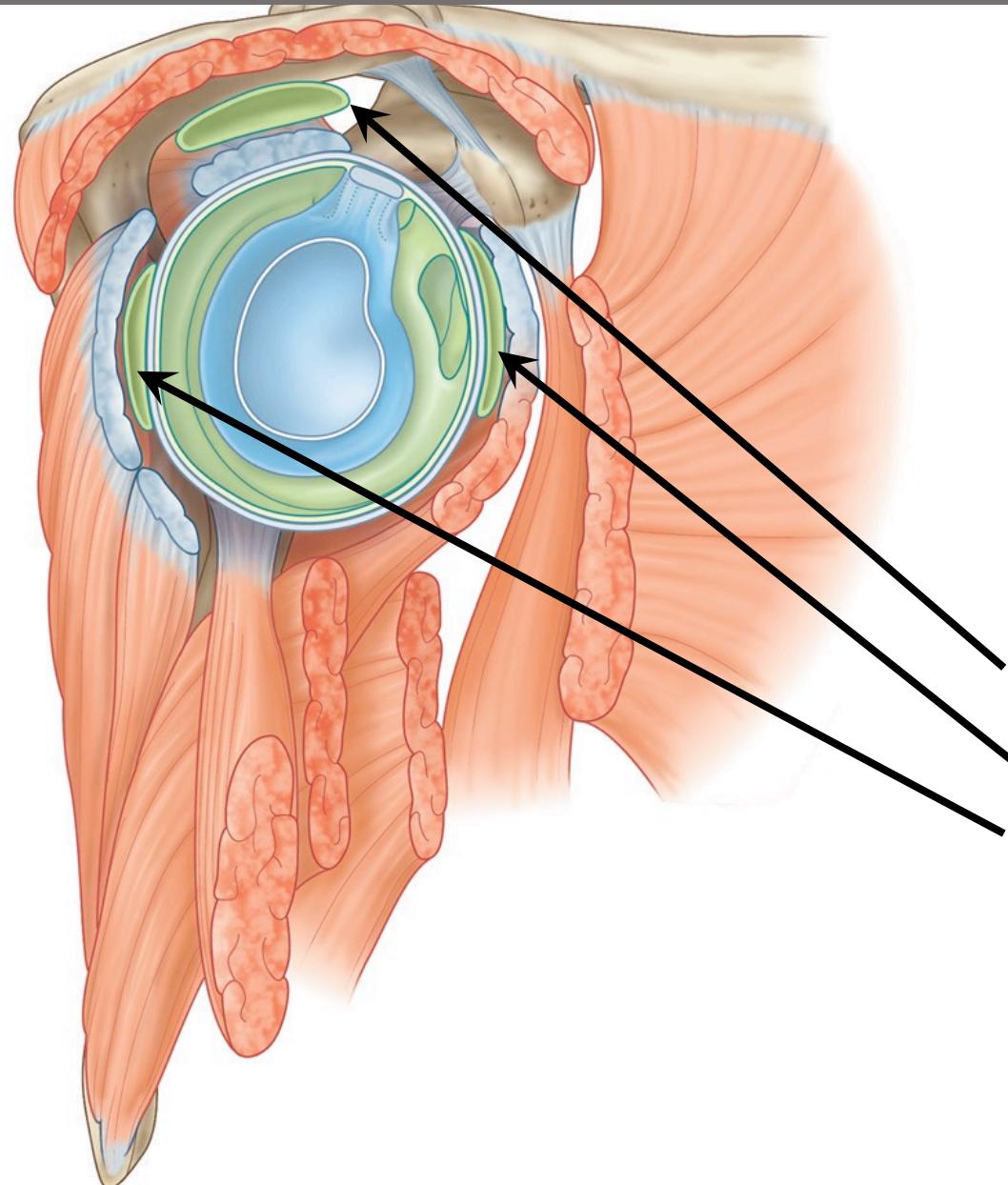
*m. triceps humeri, caput longum*

# Articulatio glenohumeralis - glenohumeral joint



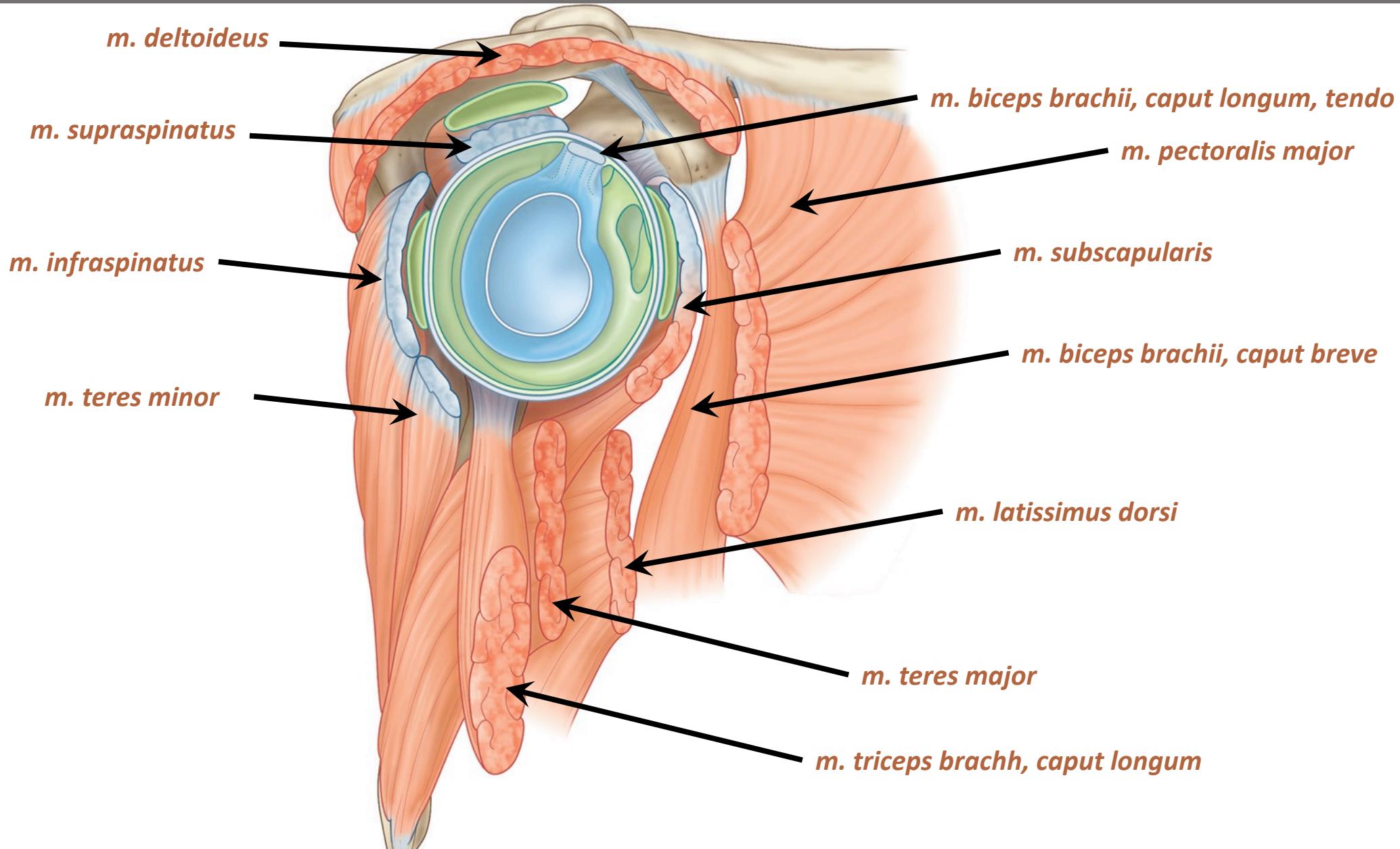
- Tendo m. bicipitis (caput longum)
- Cavitas glenoidalis
- Labrum glenoidale
- Capsula articularis
- Musculi
- Bursae
  - *Bursae subacromialis /subdeltoidaea*
  - *Bursa m. subscapularis*
  - *Bursa m. infraspinatis*

# Articulatio glenohumeralis - glenohumeral joint



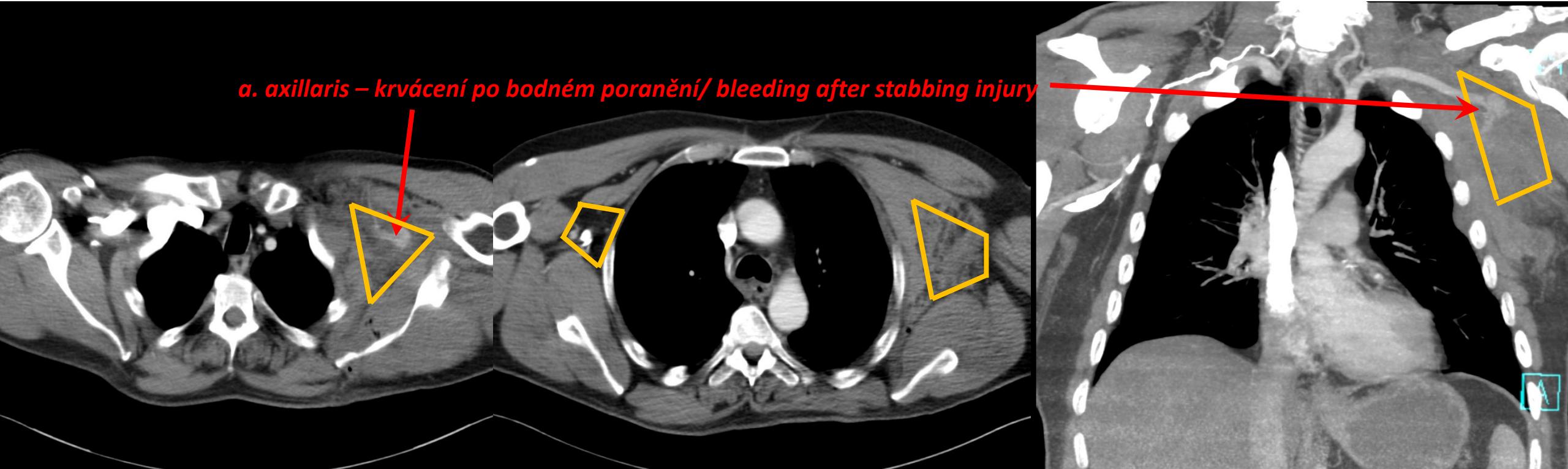
- ◆ *Bursae subacromialis /subdeltoida*
- ◆ *Bursa m. subscapularis*
- ◆ *Bursa m. infraspinatis*

# Articulatio glenohumeralis - glenohumeral joint



# axilla

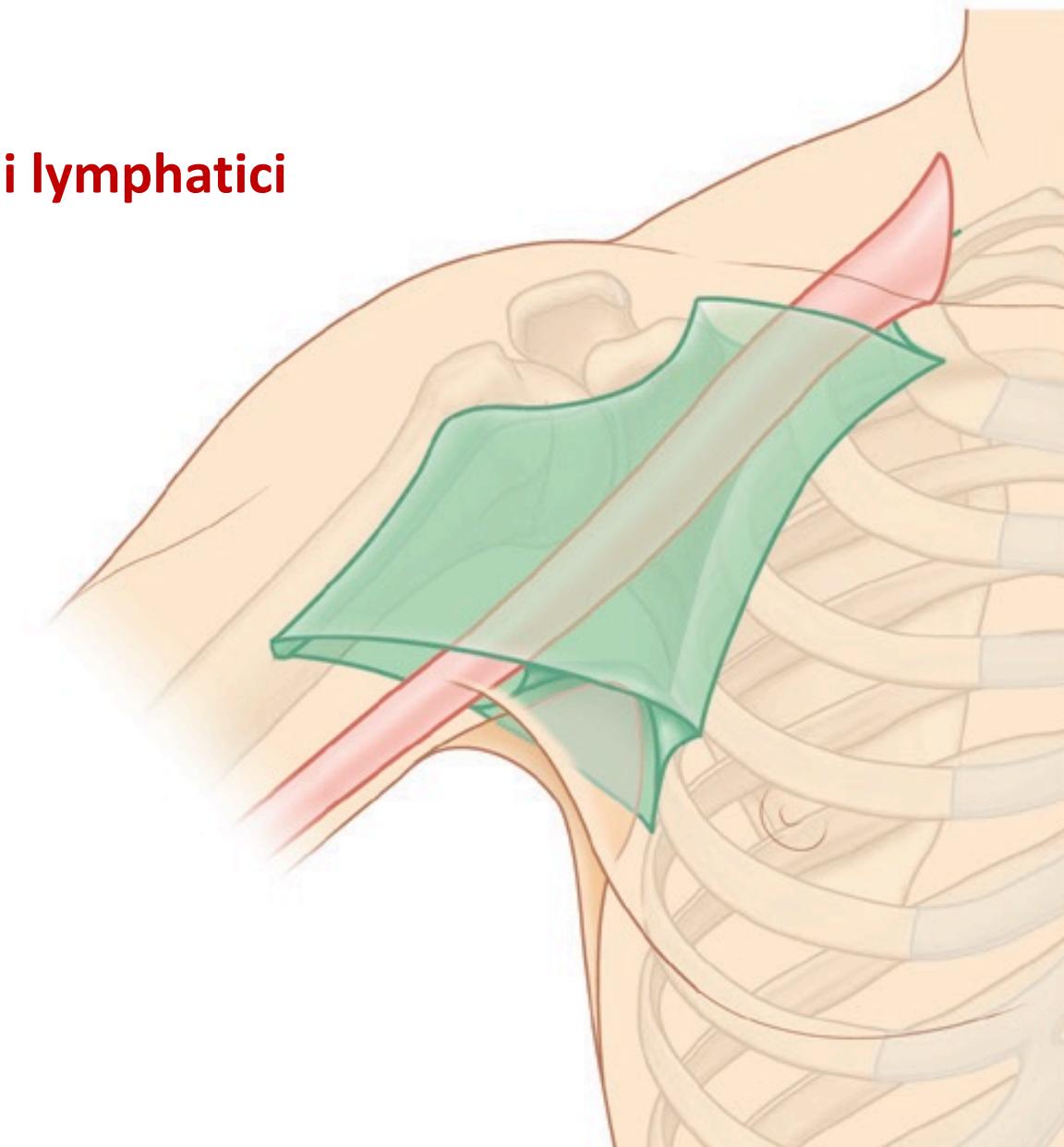
a. axillaris – krvácení po bodném poranění/ bleeding after stabbing injury



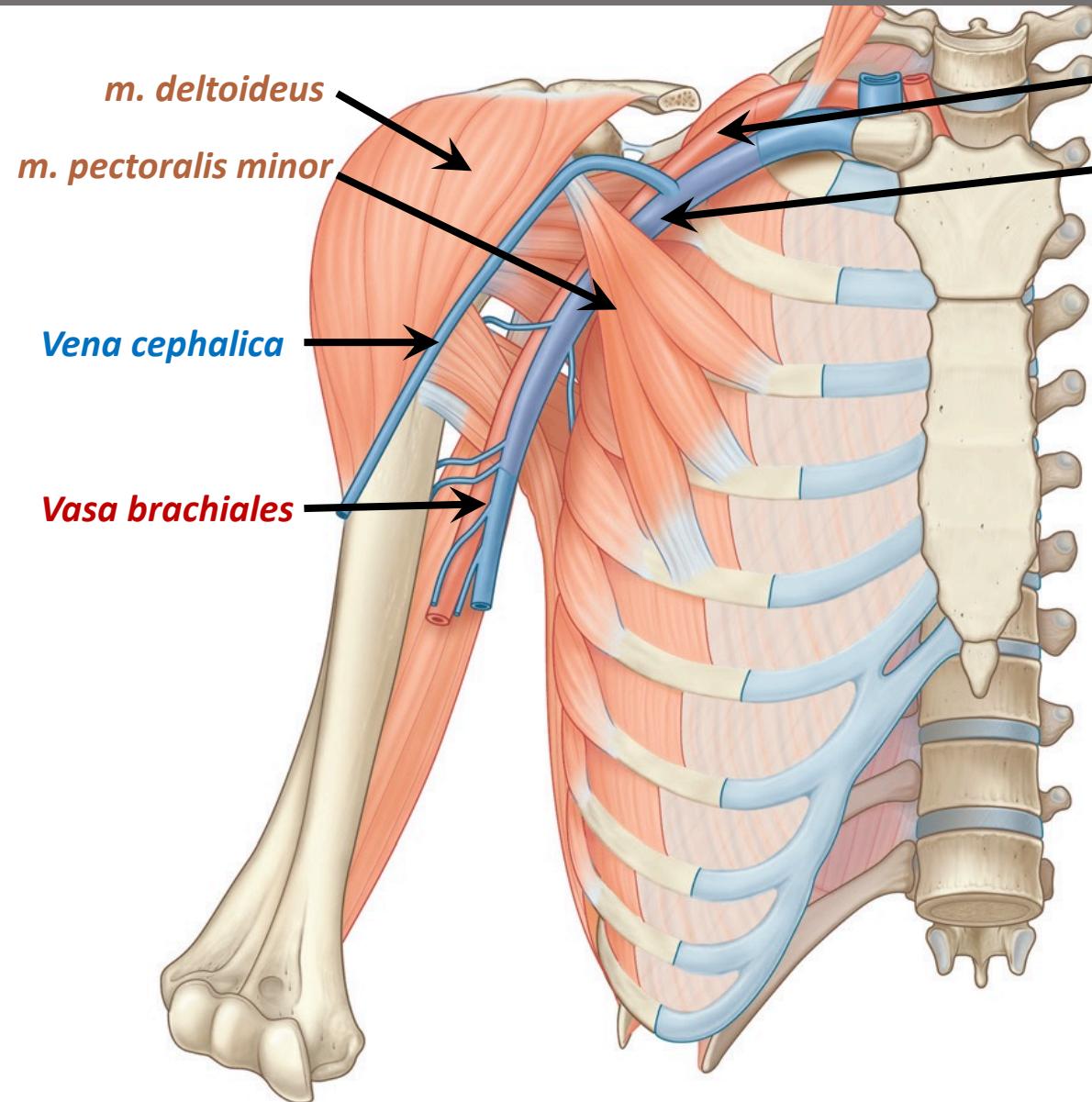
CT – výpočetní tomografie/computed tomography

# axilla

- ❖ Nervi, arteriae et venae, vasa lymphatica et nodi lymphatici
- ❖ Vstup / inlet - *clavicula, costa l. , scapula*
- ❖ Přední stěna / anterior wall
  - ❖ *m. pecroralis major et minor*
- ❖ Mediální stěna / medial wall
  - ❖ *hrudní stěna, m. serratus anterior*
- ❖ Zadní stěna / posterior wall
  - ❖ *m. subscapularis, m. teres major, m. latissimum dorsi*
  - ❖ *m. triceps brachii caput longum*
- ❖ Laterální stěna / lateral wall
  - ❖ *Sulcus intertubercularis*
- ❖ Dno / bottom - kožní kryt axily / skin

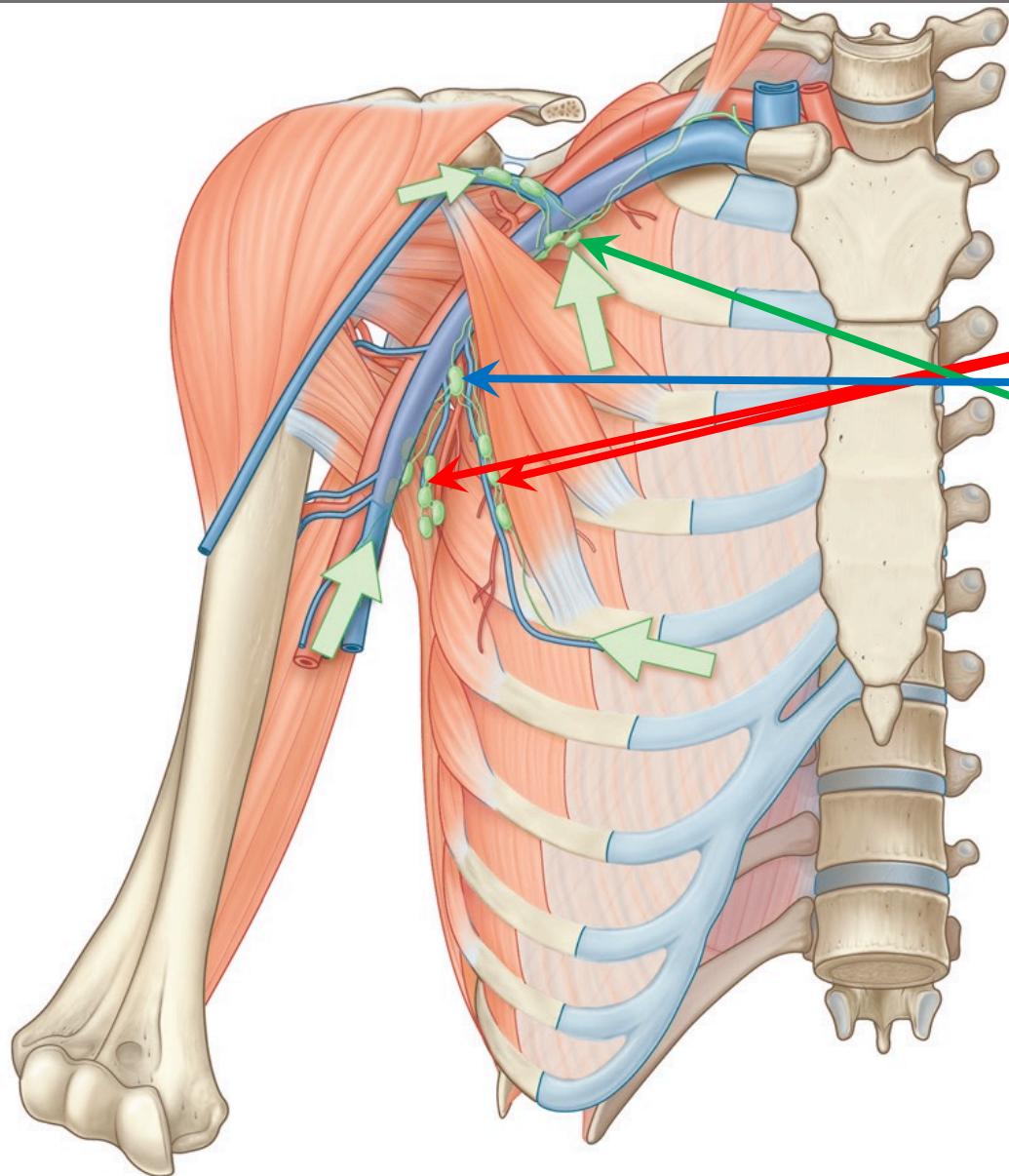


# axilla



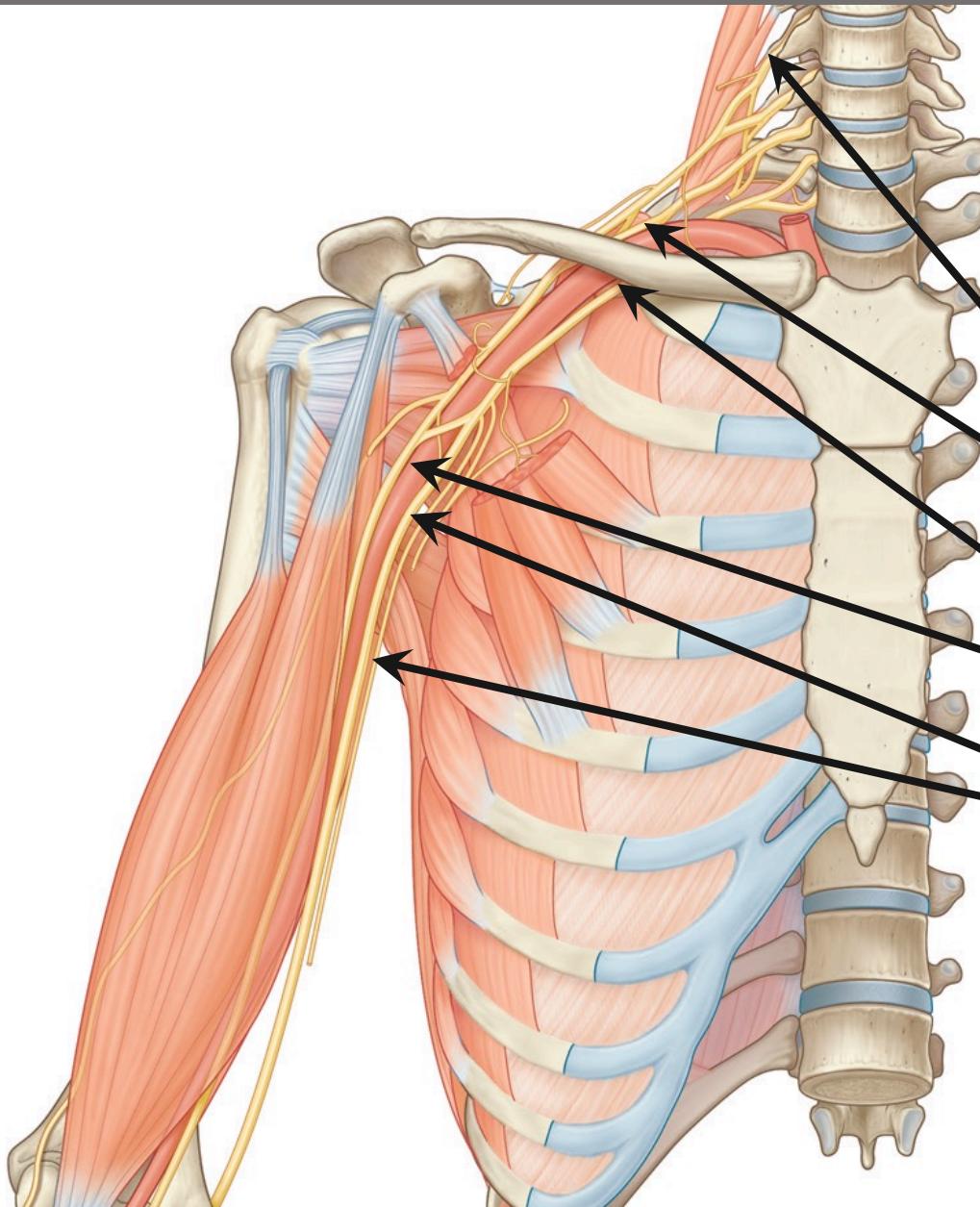
- Arteria axillaris
- Vena axillaris
- Nodi lymphatici – tři úrovně/three levels
  - I nodi humerales + pectorales,
  - II - nodi centrales
  - III - nodi apicales, infraclavicularis
- Plexus brachialis
  - Horní část – upper part - divisiones
    - Přední a zadní oddíl / anterior and posterior part
  - Střední část – middle part fasciculi
    - medialis, lateralis, posterior fasciculi/fascicles
  - Dolní část – lower part - nervi
    - N. axillaris
    - N. musculocutaneus
    - N. radialis
    - N. medianus
    - N. ulnaris

# axilla



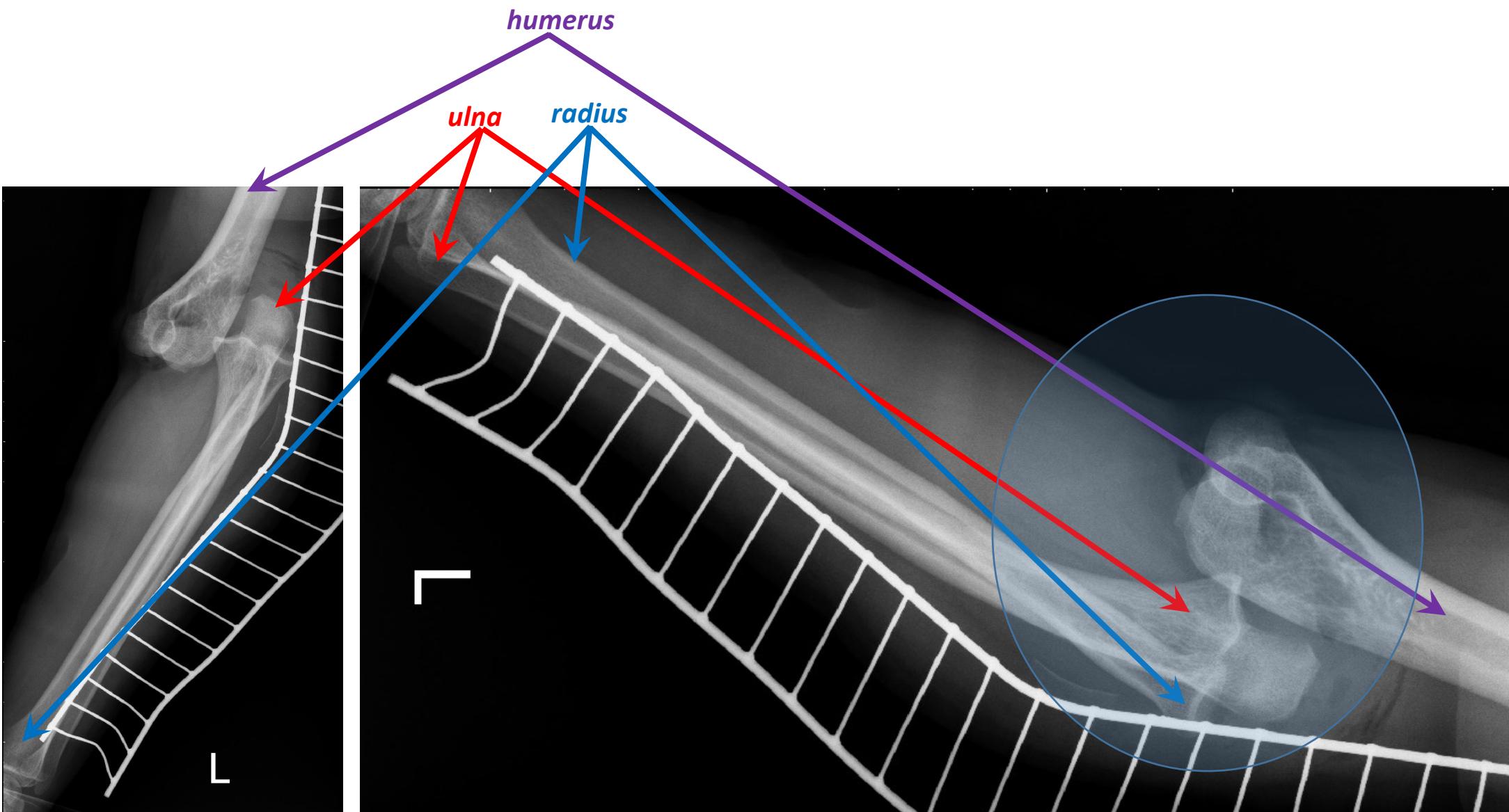
- Vena axillaris
- Arteria axillaris
- Nodi lymphatici – tři úrovně/three levels
  - I nodi humerales + pectorales,
  - II - nodi centrales
  - III - nodi apicales, infraclavicularis
- Plexus brachialis
  - Horní část – upper part - divisiones
    - Přední a zadní oddíl / anterior and posterior part
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    - medialis, lateralis, posterior fasciculi/fascicles
  - Dolní část – lower part - nervi
    - N. axillaris
    - N. musculocutaneus
    - N. radialis
    - N. medianus
    - N. ulnaris

# axilla

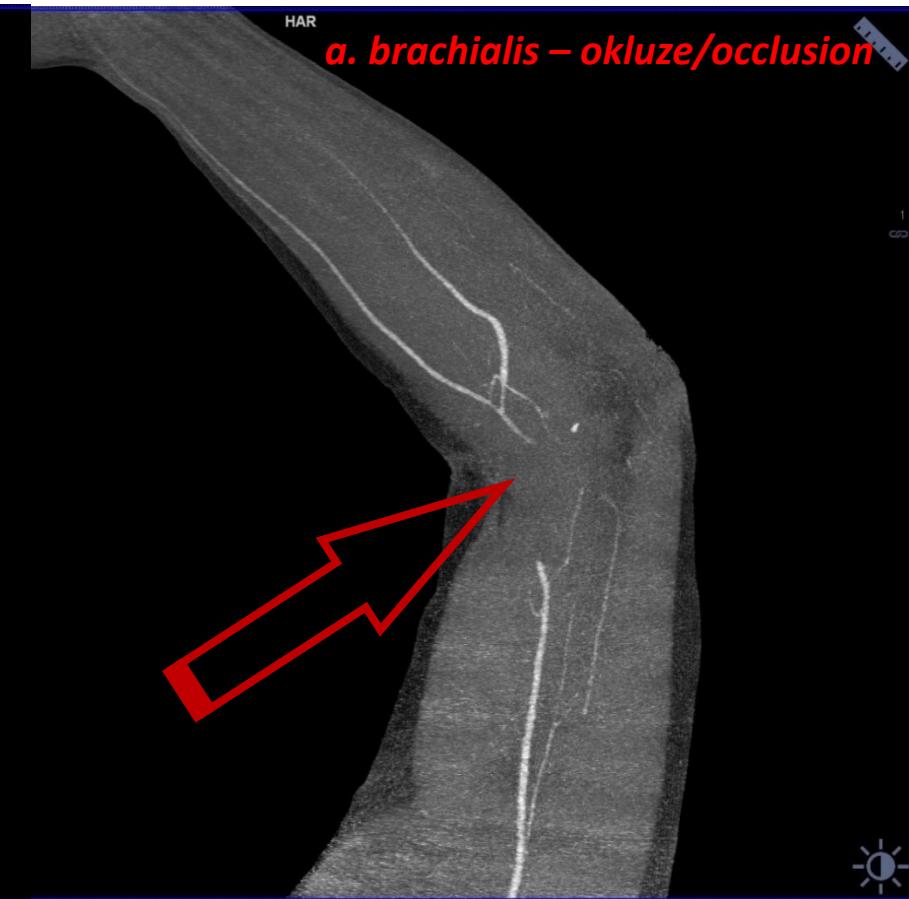


- Vena axillaris
- Arteria axillaris
- Nodi lymphatici – tři úrovně/three levels
  - I nodi humerales + pectorales,
  - II - nodi centrales
  - III - nodi apicales, infraclavicularis
- **Plexus brachialis**
  - Horní část – upper part - divisiones
    - Přední a zadní oddíl / anterior and posterior part
  - Střední část – middle part fasciculi
    - medialis, lateralis, posterior fasciculi/fascicles
  - Dolní část – lower part - nervi
    - N. axillaris
    - N. musculocutaneus
    - N. radialis
    - N. medianus
    - N. ulnaris

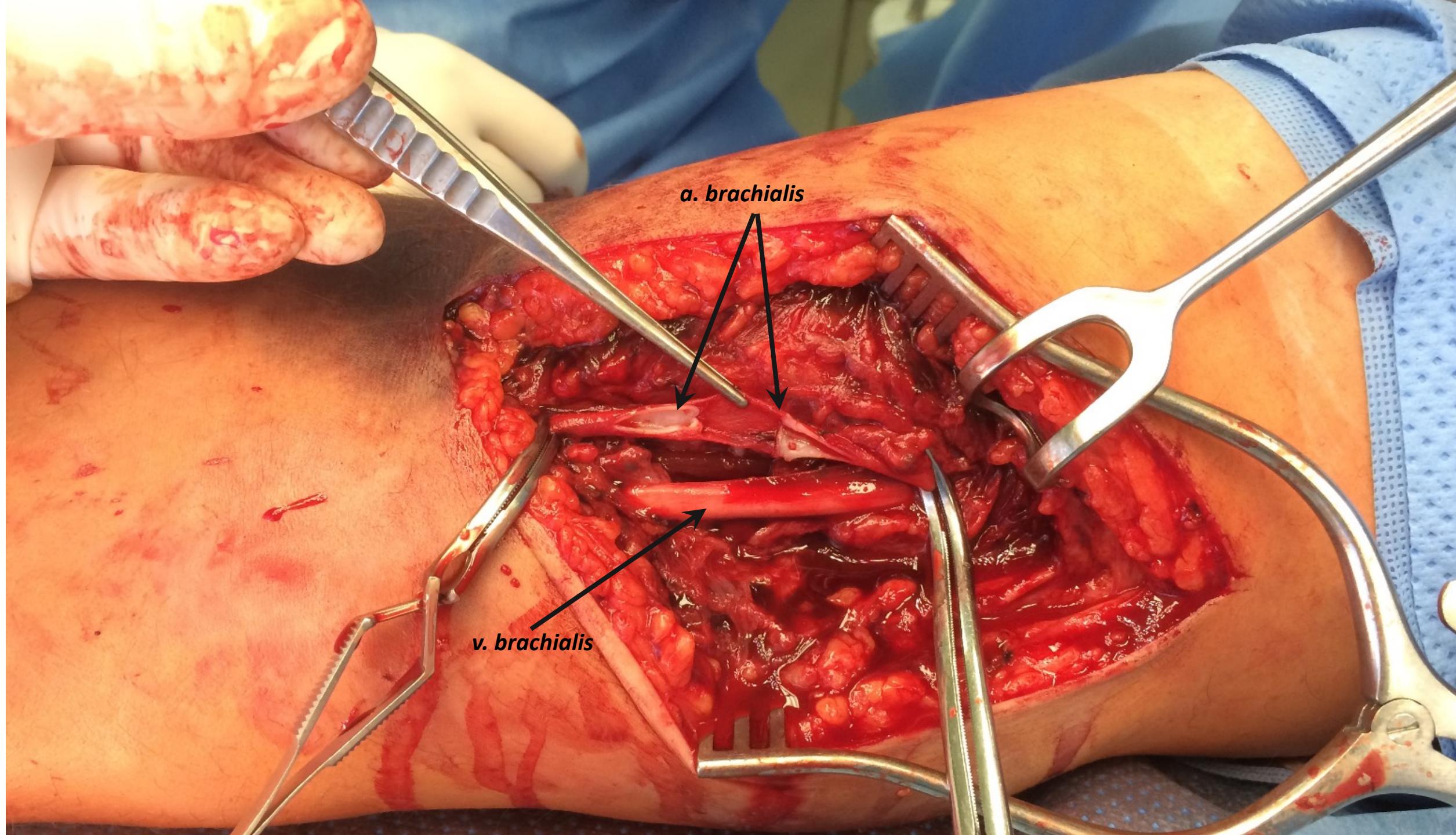
# regio cubiti, fossa cubiti



# regio cubiti, fossa cubiti

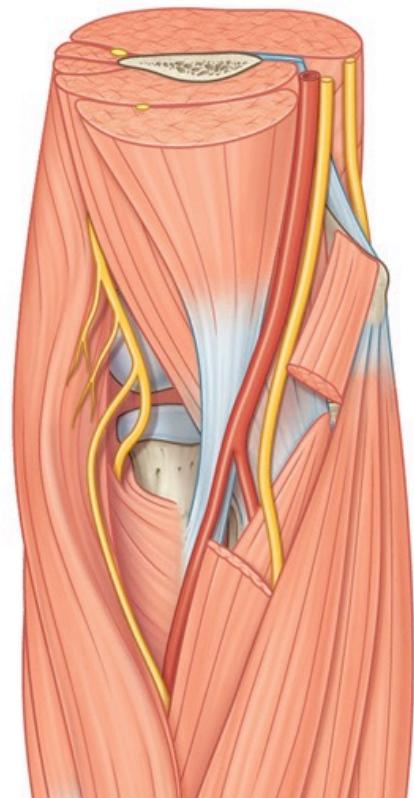
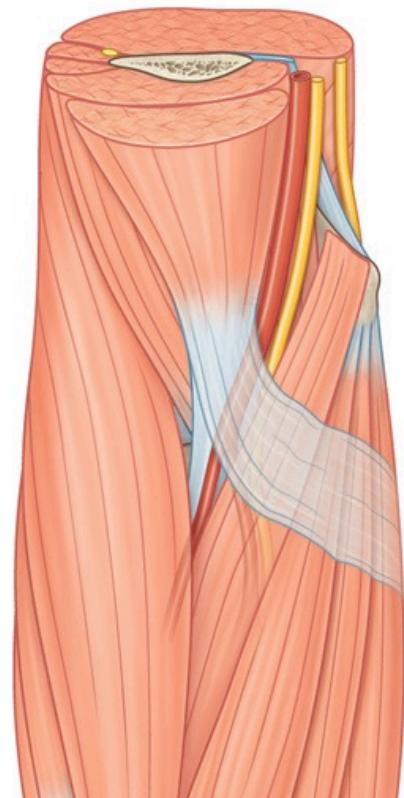
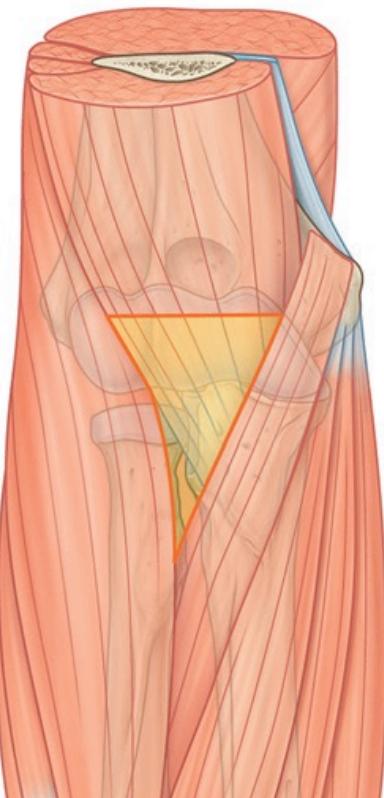
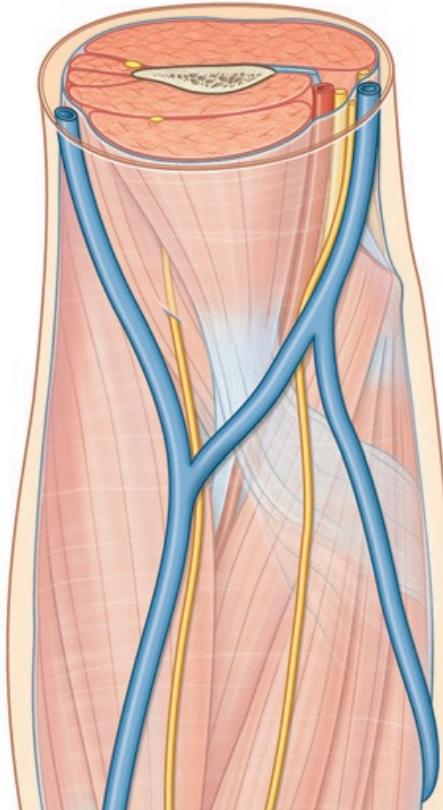


CT – angiografie / CT - angiography

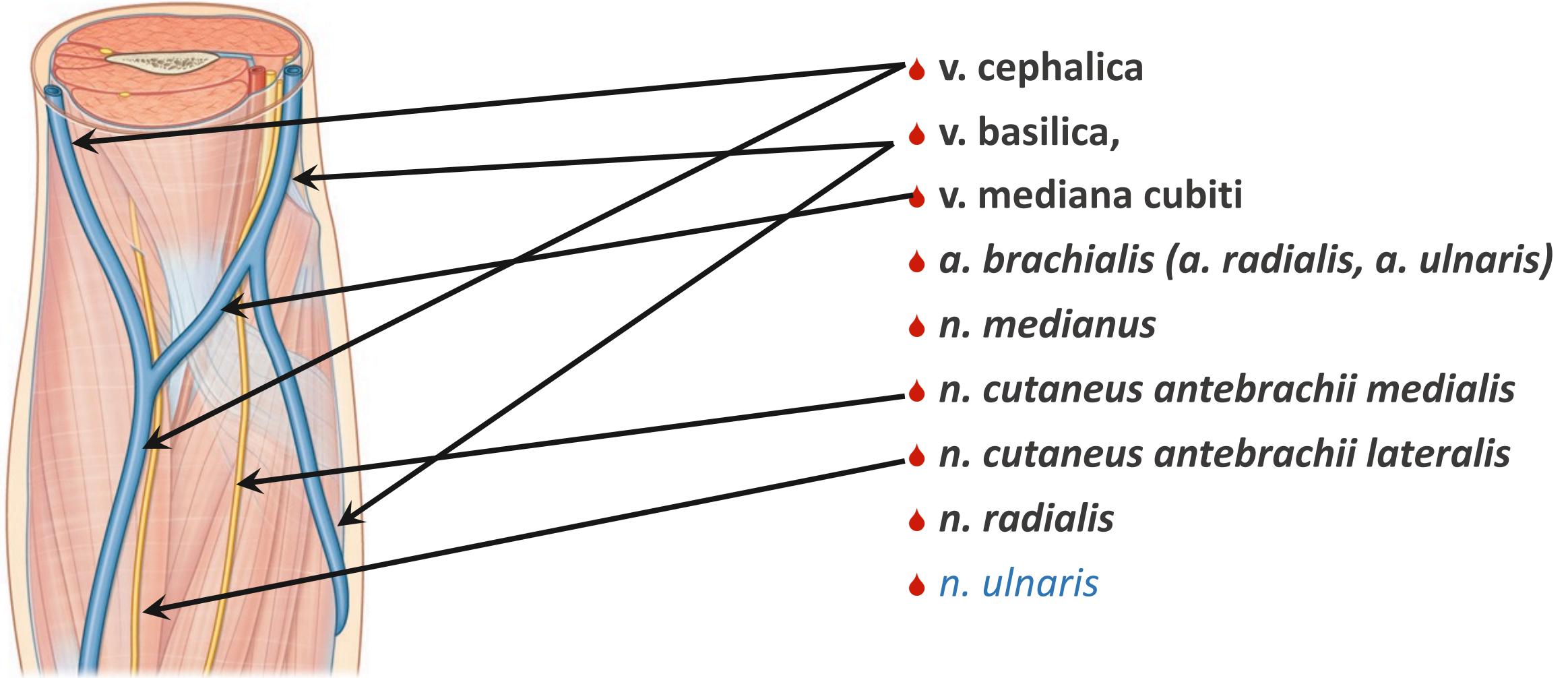


# fossa cubiti

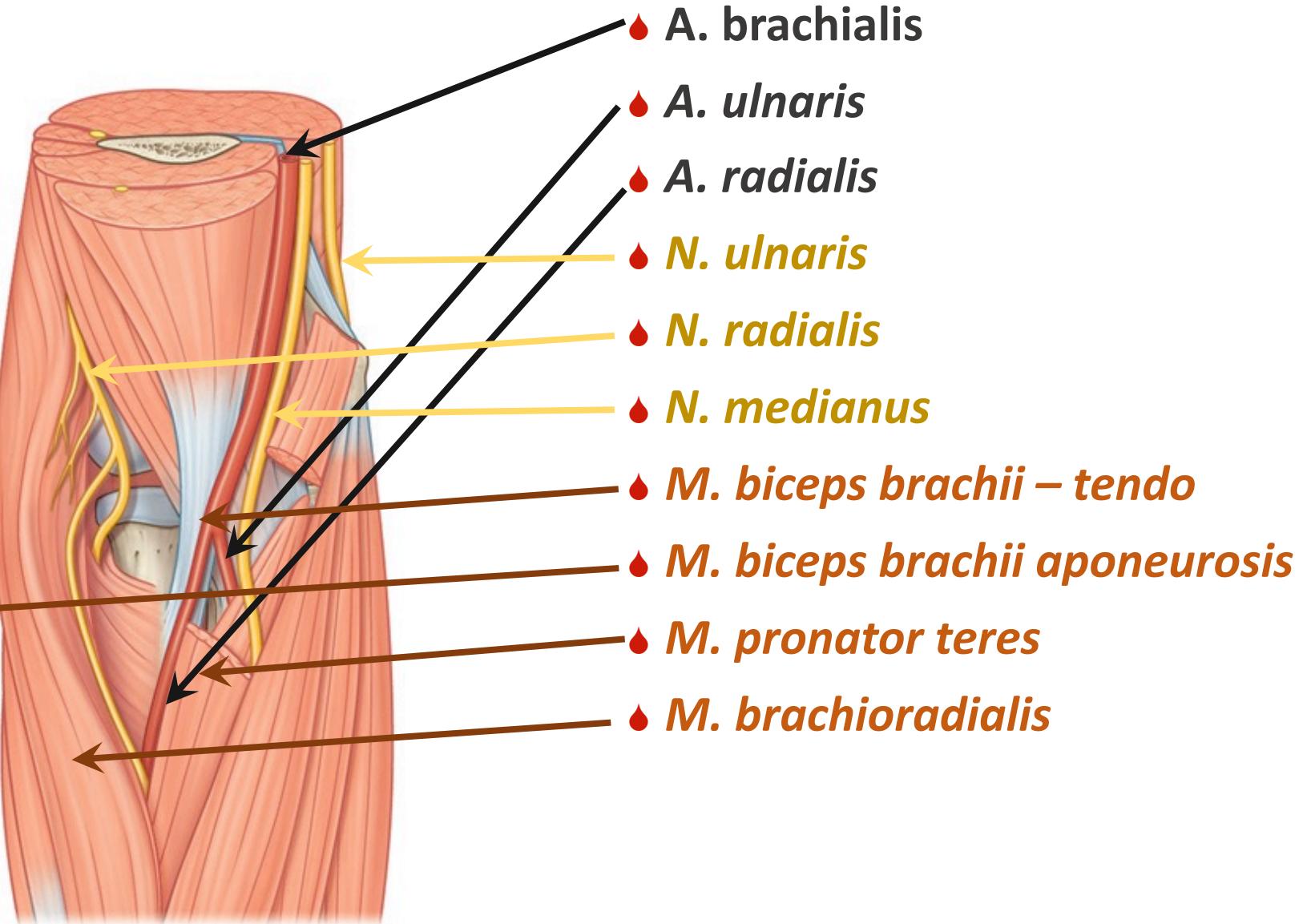
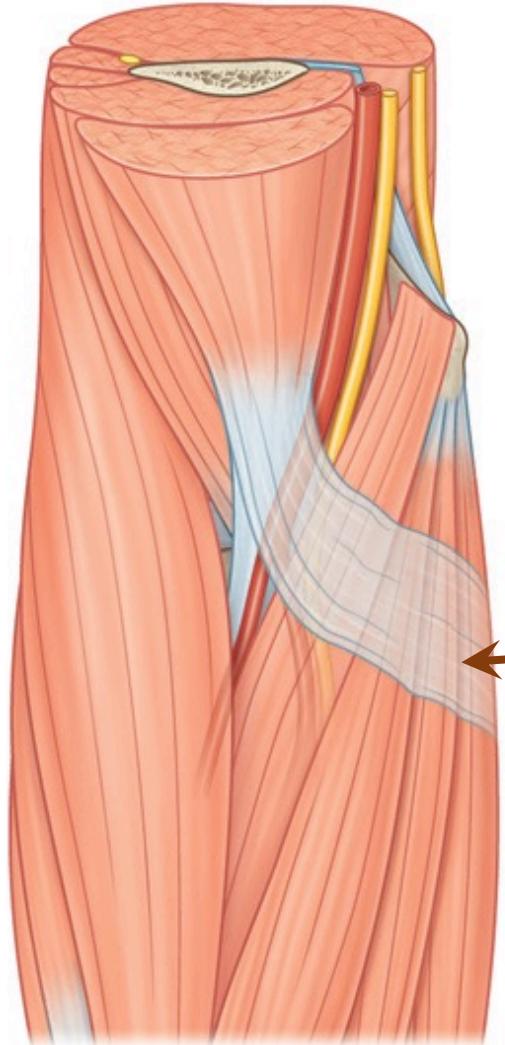
- ❖ v. cephalica, v. basilica, v. mediana cubiti
- ❖ a. brachialis (a. radialis, a. ulnaris), n. medianus, n. cutaneus antebrachii med, lat., n. radialis
- ❖ CAVE: N. ulnaris - za mediálním epikondylem / behind medial epicondylus !



# fossa cubiti



# fossa cubiti



A. brachialis

A. ulnaris

A. radialis

N. ulnaris

N. radialis

N. medianus

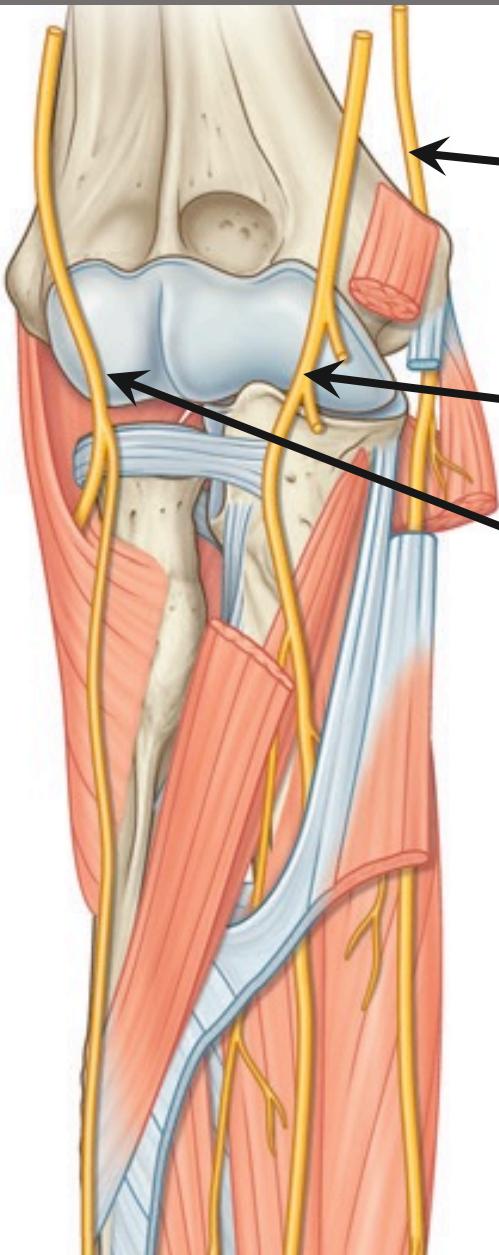
M. biceps brachii – tendo

M. biceps brachii aponeurosis

M. pronator teres

M. brachioradialis

# fossa cubiti



## ❖ N. ulnaris

- ❖ Epicondylus humeri medialis
- ❖ Sulcus nervi ulnaris - dorsum

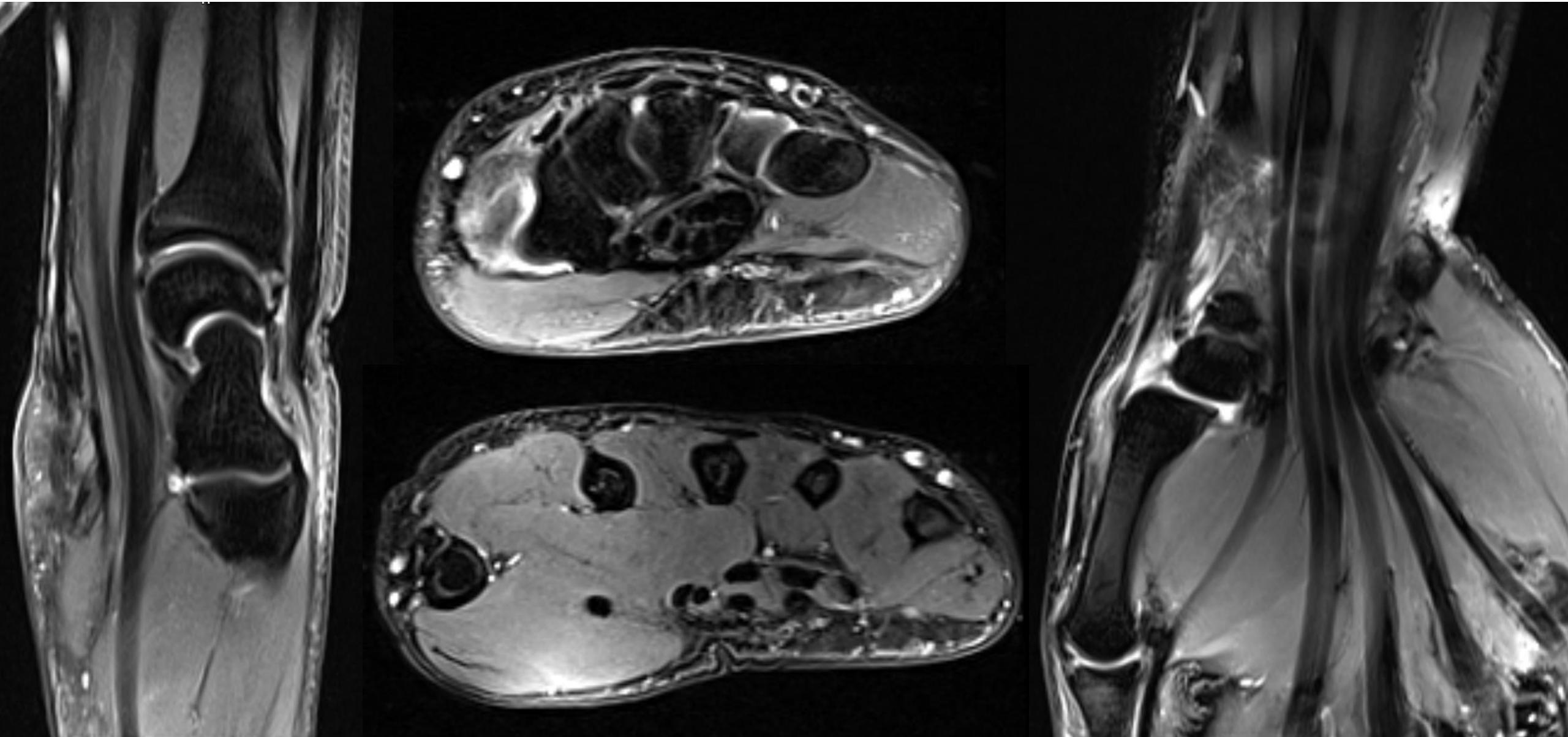
## ❖ N. medianus

- ❖ Epicondylus humeri medialis
- ❖ Processus cornoideus

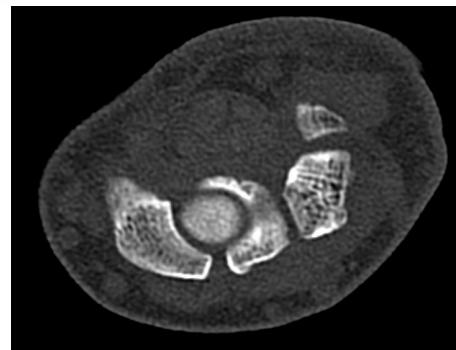
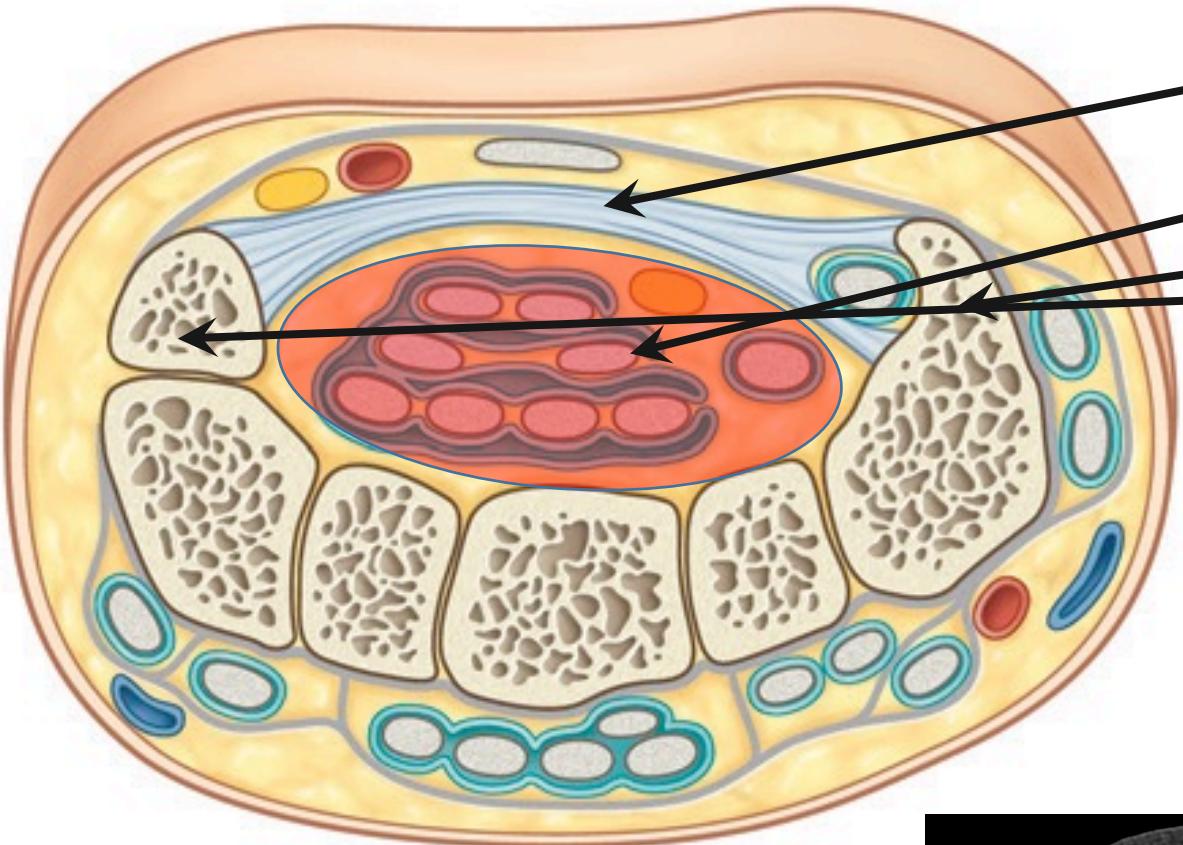
## ❖ N. radialis

- ❖ Epicondylus humeri lateralis
- ❖ Capitulum radii

# Canalis carpalis

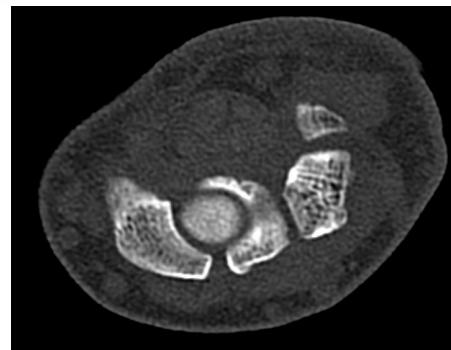
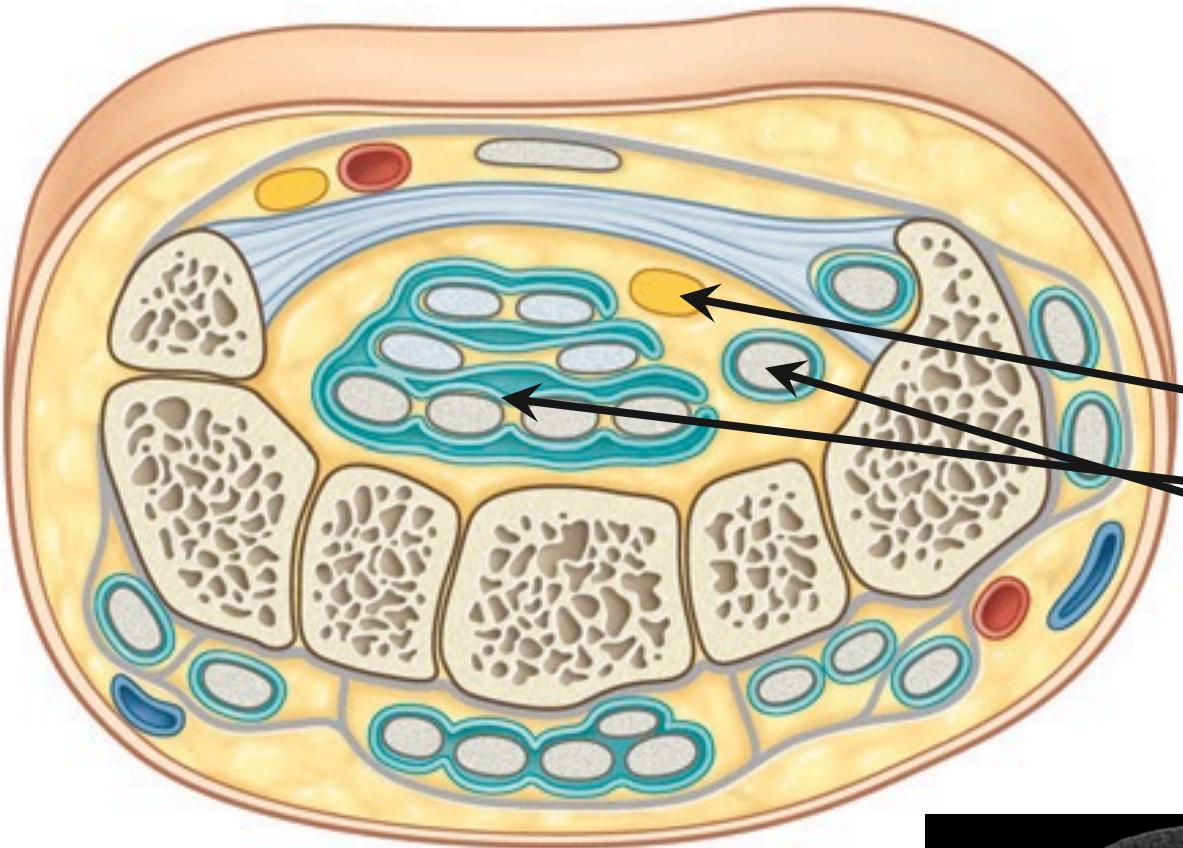


# Canalis carpalis



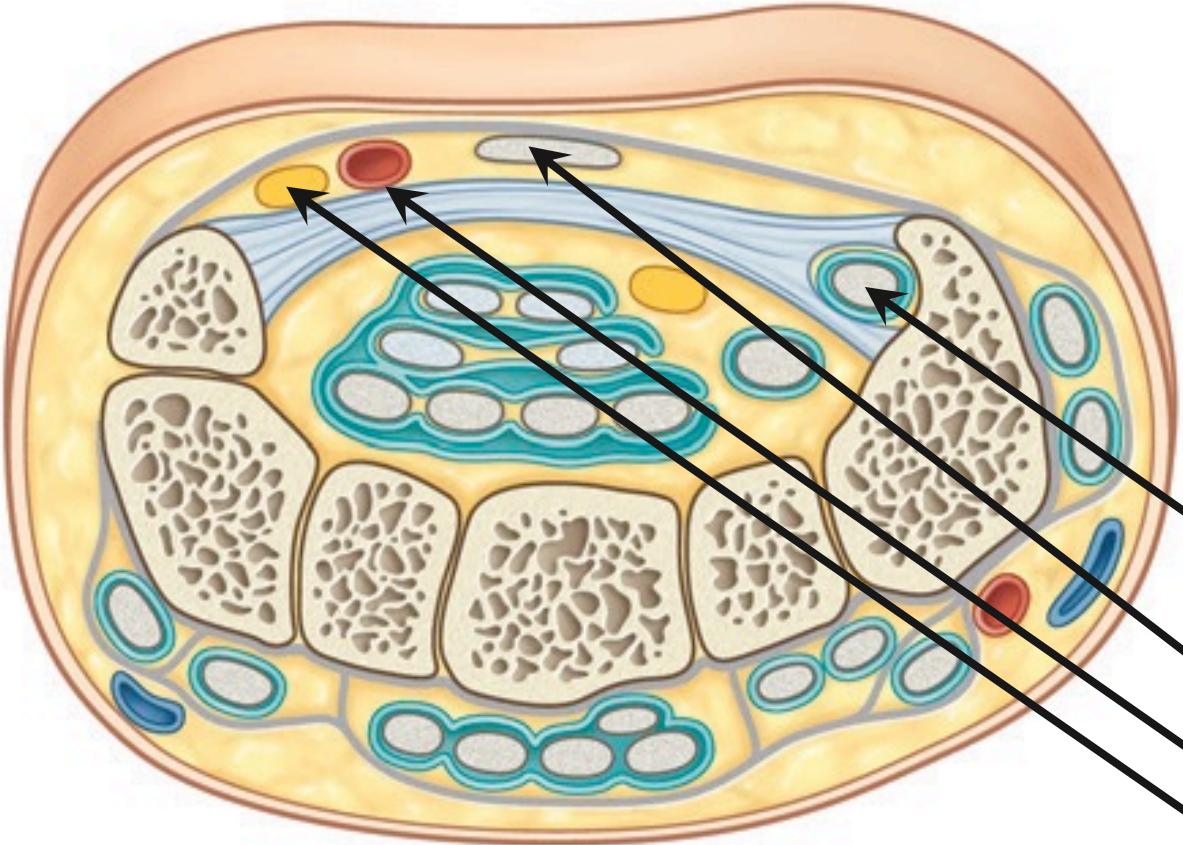
- Retinaculum flexorum
- U – prostor/ U- space
  - Tuberculum ossis trapezii
  - Os pisiforme
- Pod retinakulem / below retinaculum
  - N. medianus
  - Mm. flexores digitorum superf. et prof. (T)
  - M. flexor pollicis longus (T)
- V retinakulu / in retinaculum
  - M. flexor carpi radialis (T)
- Nad retinakulem / above retinaculum
  - N. ulnaris
  - A. ulnaris
  - M. palmaris longus (T)

# Canalis carpalis



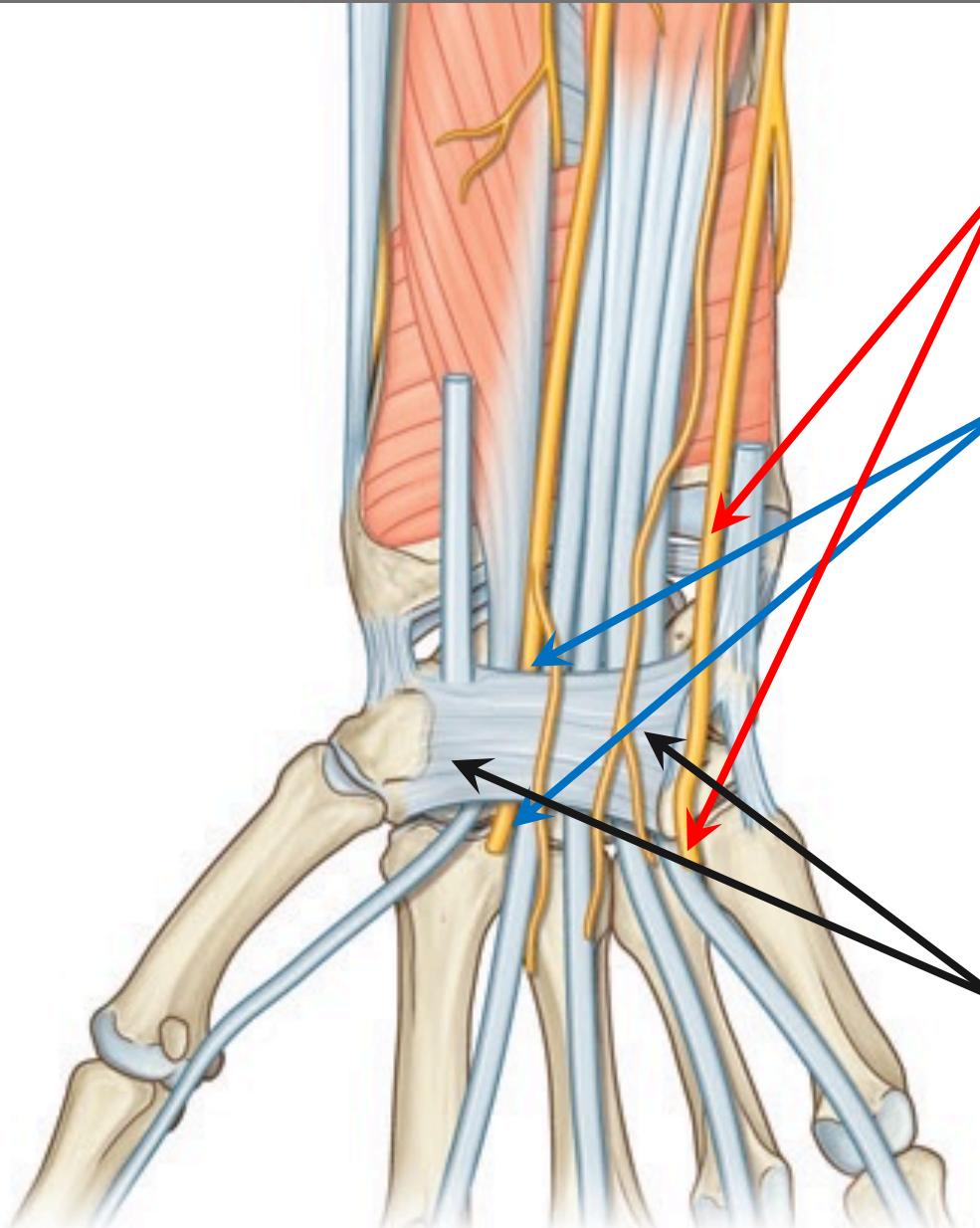
- Retinaculum flexorum
- U – prostor/ U- space
  - Tuberculum ossis trapezii
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  - N. medianus
  - Mm. flexores digitorum superf. et prof. (T)
  - M. flexor pollicis longus (T)
- V retinakulu / in retinaculum
  - M. flexor carpi radialis (T)
- Nad retinakulem / above retinaculum
  - N. ulnaris
  - A. ulnaris
  - M. palmaris longus (T)

# Canalis carpalis



- Retinaculum flexorum
- U – prostor/ U- space
  - Tuberculum ossis trapezii
  - Os pisiforme
- Pod retinakulem / below retinaculum
  - N. medianus
  - Mm. flexores digitorum superf. et prof. (T)
  - M. flexor pollicis longus (T)
- V retinakulu / in retinaculum
  - M. flexor carpi radialis (T)
- Nad retinakulem / above retinaculum
  - M. palmaris longus (T)
  - A. ulnaris
  - N. ulnaris

# Canalis carpalis



## N. ulnaris

- Před retinaculem / above retinaculum
- Ramus palmaris

## N. medianus

- Pod retinaculem / below retinaculum
- Ramus palmaris
- Nad retinaculem

## Retinaculum flexorum

- Syndrom karpálního tunelu/ syndrome of carpal tunnel
- Útlak n. medianus / compression of medianus nerve

# Upper extremity – clinically important topography