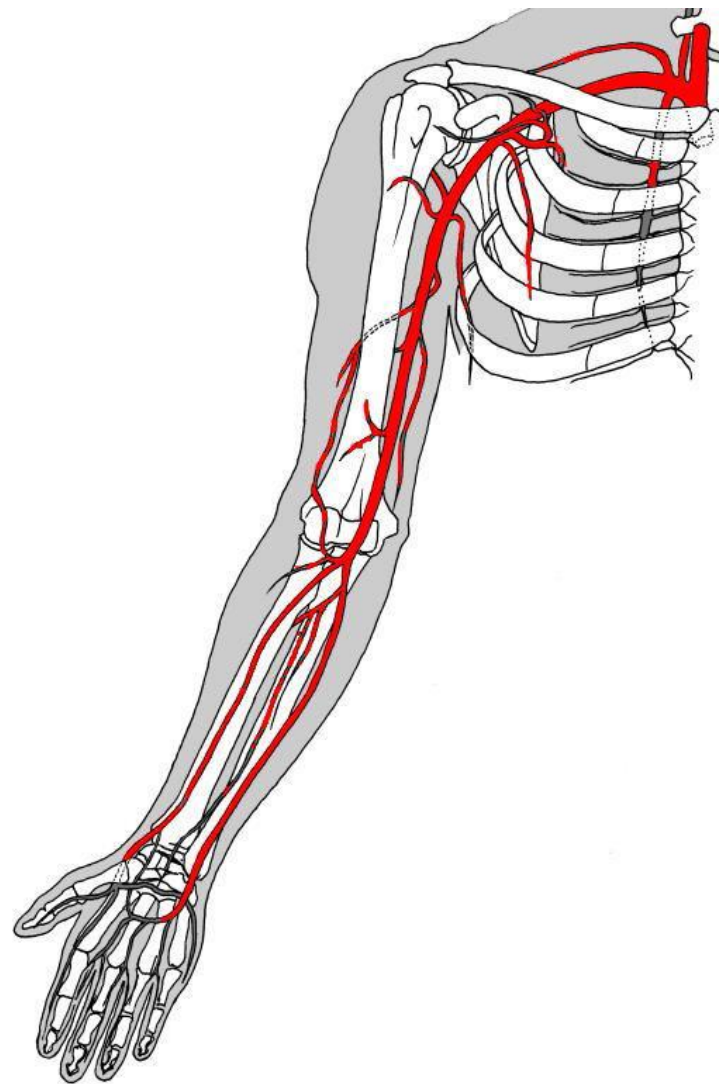


Upper extremity

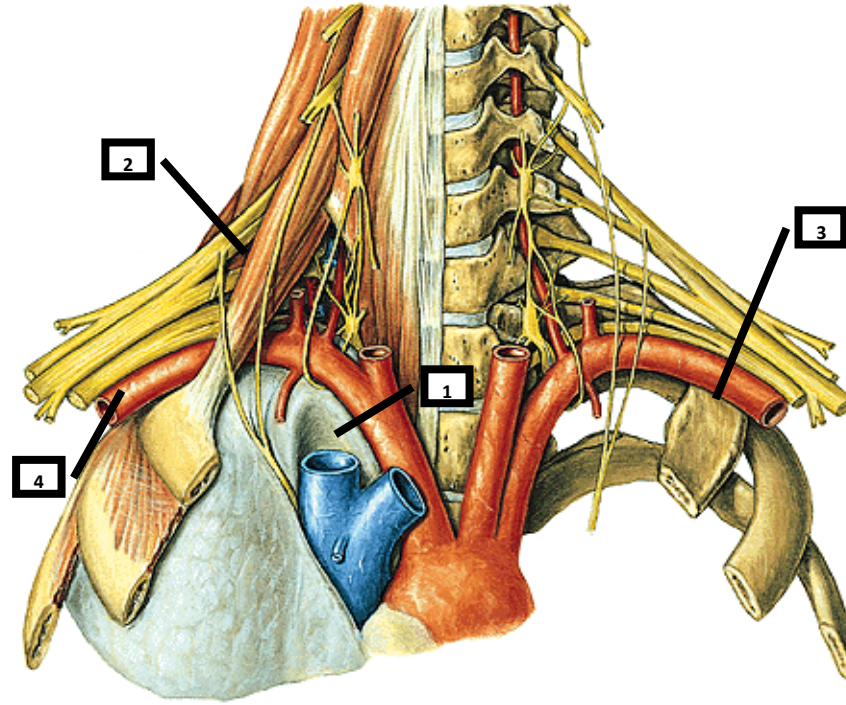
Arteries, veins, nerves, lymph, topography

Aa. membri superioris



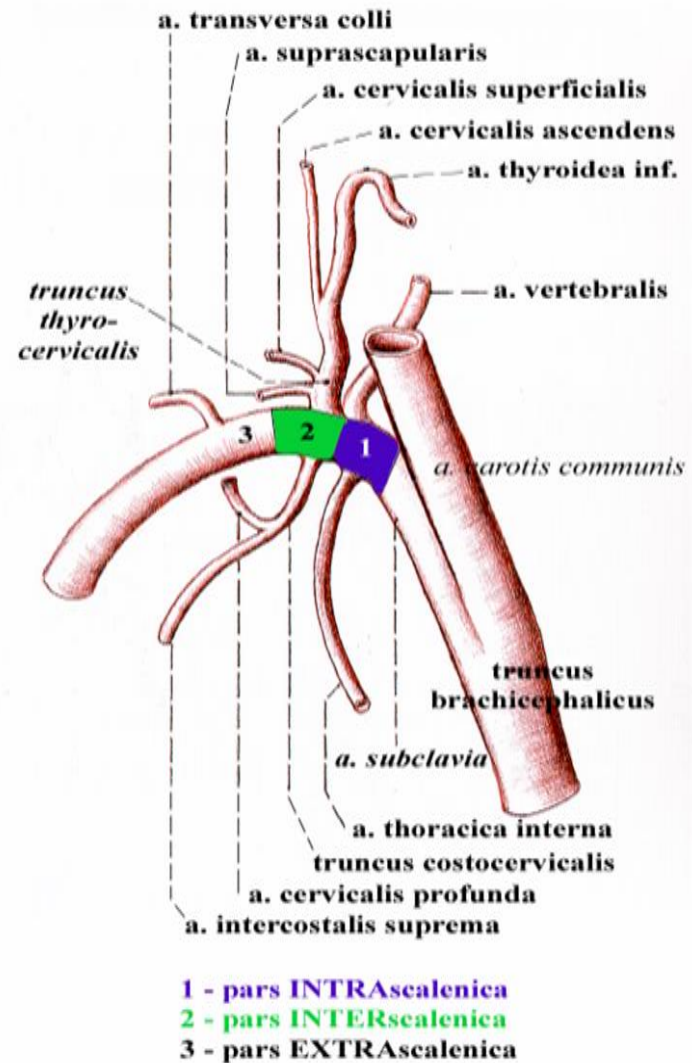
A. subclavia

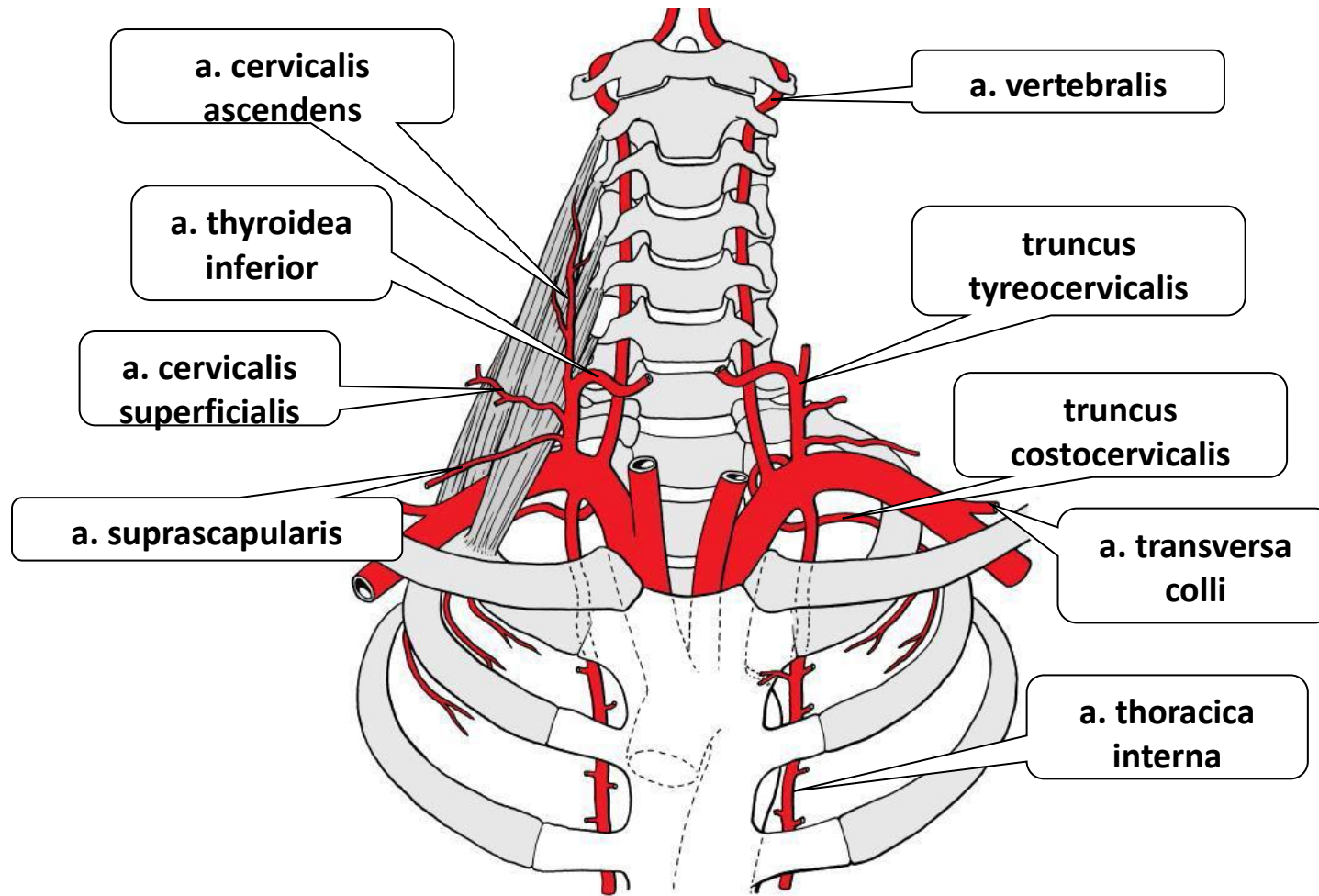
1. Passes through *cupula pleurae*,
2. through *fissura scalenorum*,
3. creates *sulcus a. subclaviae* on the 1. rib
4. From lateral margin of the 1. rib is called *a. axillaris*



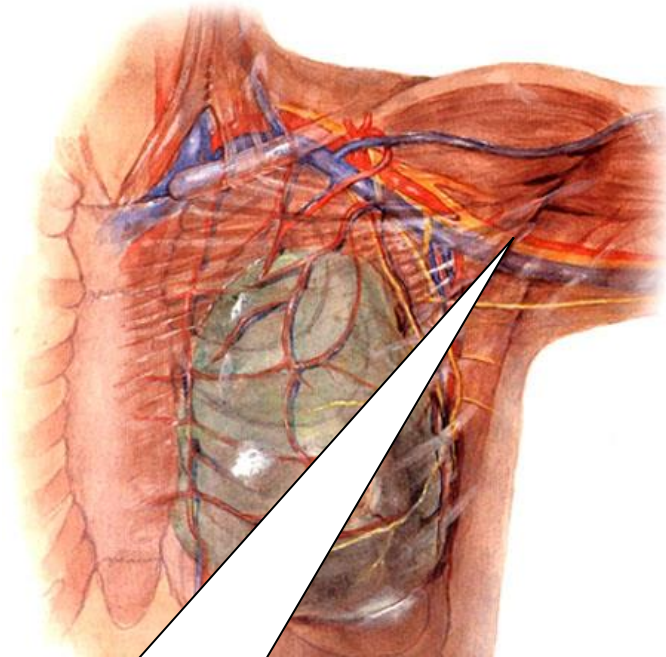
branches:

- 1) *a. vertebralis*
- 2) *truncus thyrocervicalis*
(glandula thyroidea, muscles around scapula and cervical muscles)
- 3) *truncus costocervicalis*
(musculi nuchae profundi and first two intercostal spaces)
- 4) *a. thoracica interna*
(m. rectus abdominis a diaphragma)
- 5) *a. transversa colli*
(heterochtonous muscles)



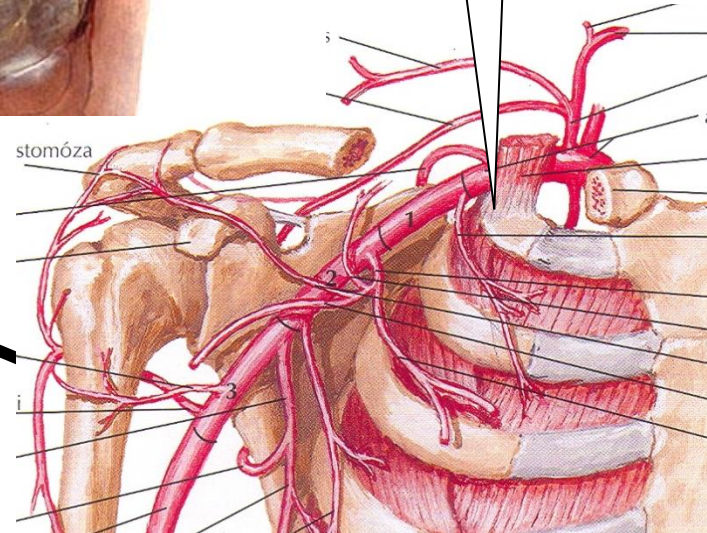


A.axillaris

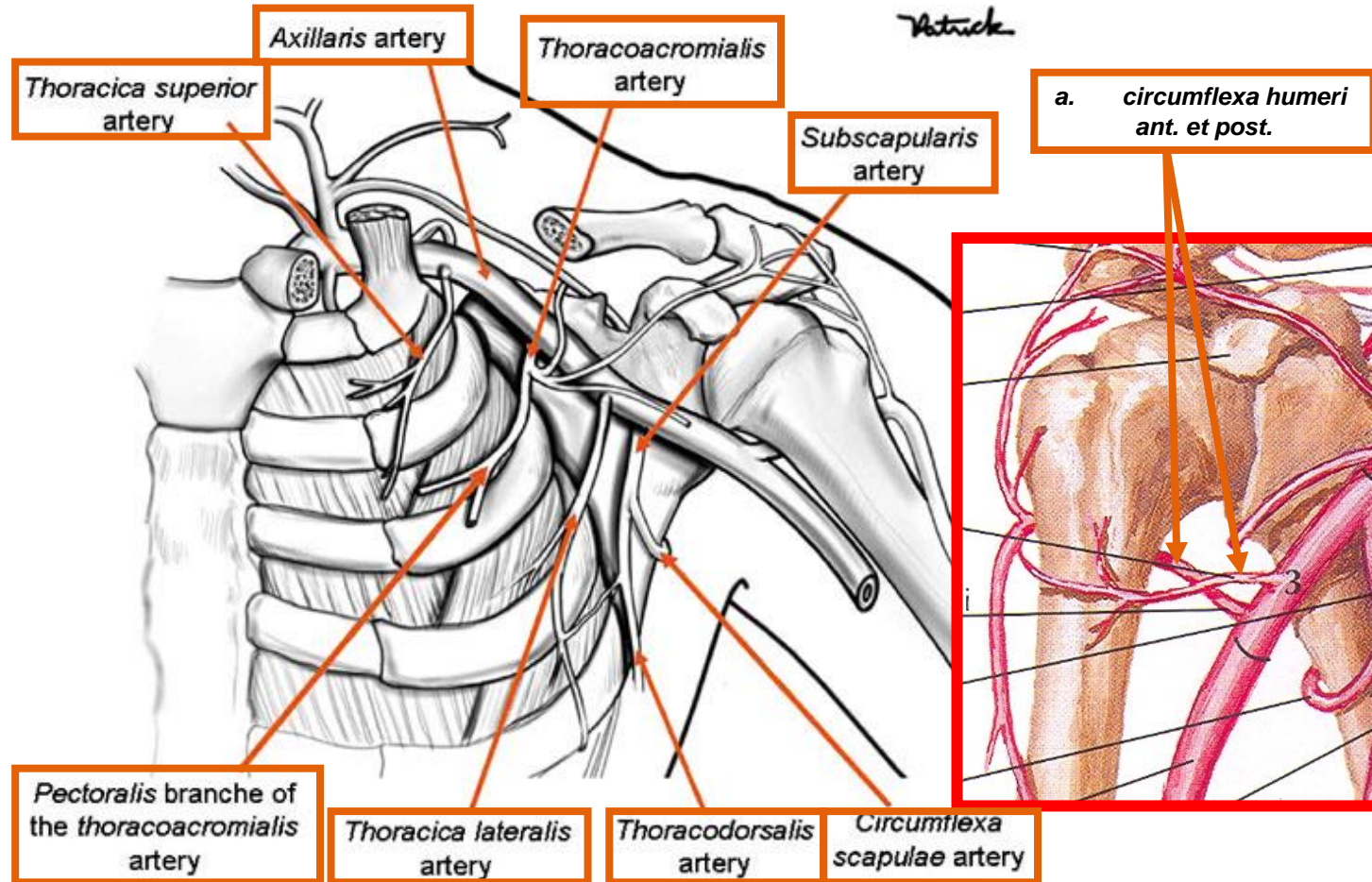


Cranially – 1. rib

Caudally – distal margin of M. PECTOALIS MAJOR



branches:



Foramen omotricipitale:

a. circumflexa scapulae

Anastomosis with

a. suprascapularis

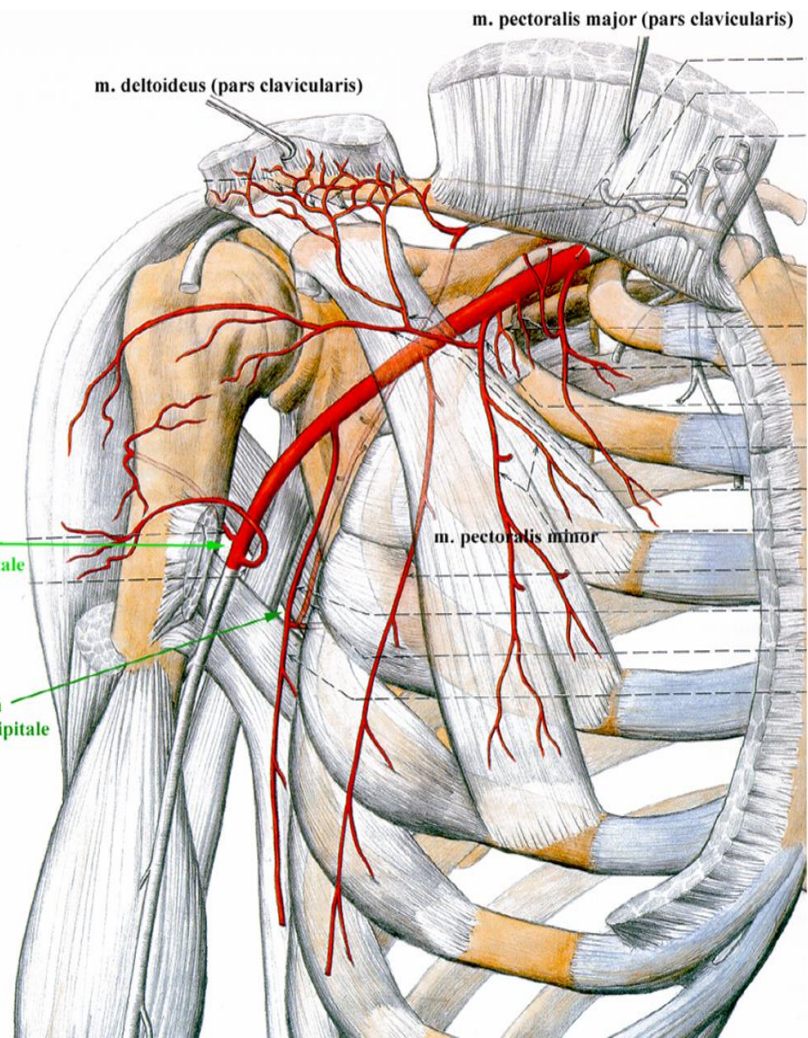
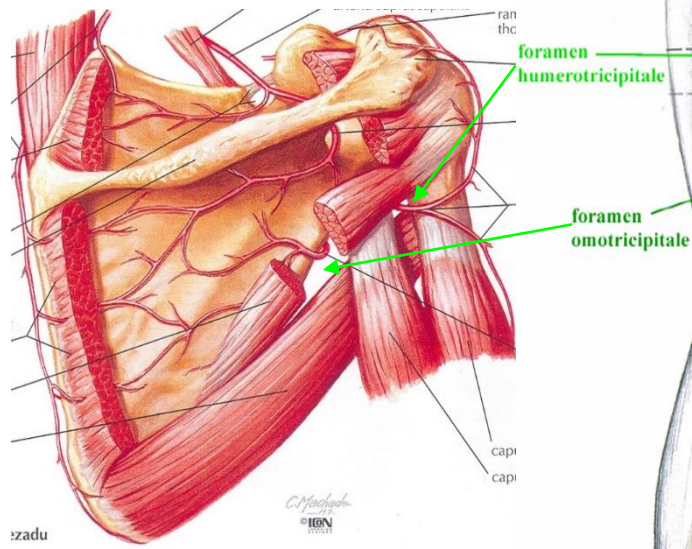
Foramen

humerotricipitale:

n. axillaris

a. circumflexa

humeri posterior



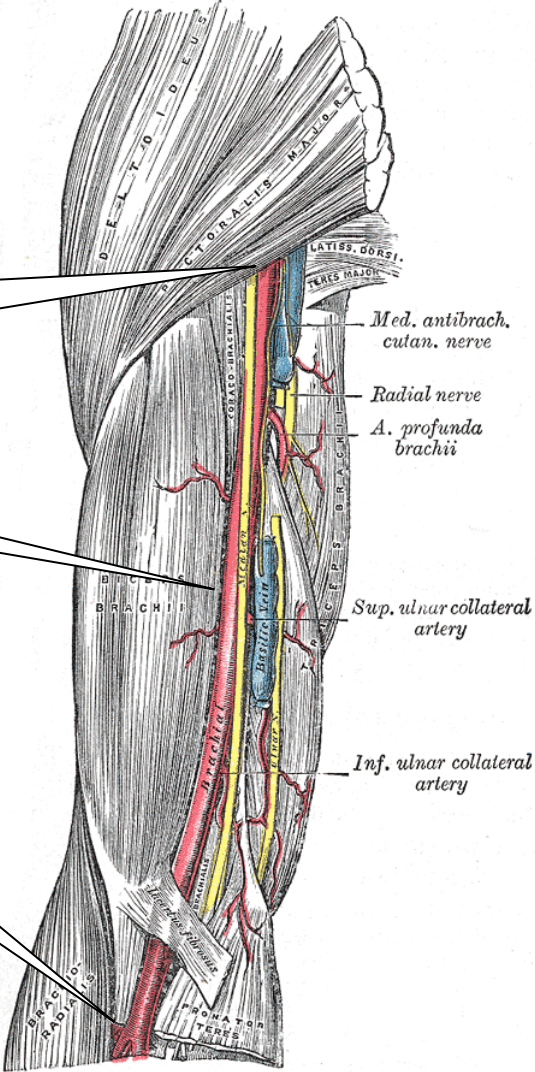
A. brachialis

Is divided into **a. radialis** a **a. ulnaris**

cranially - - distal margin of M. PECTOALIS MAJOR

SULCUS BICIPITALIS MEDIALIS

FOSSA CUBITI

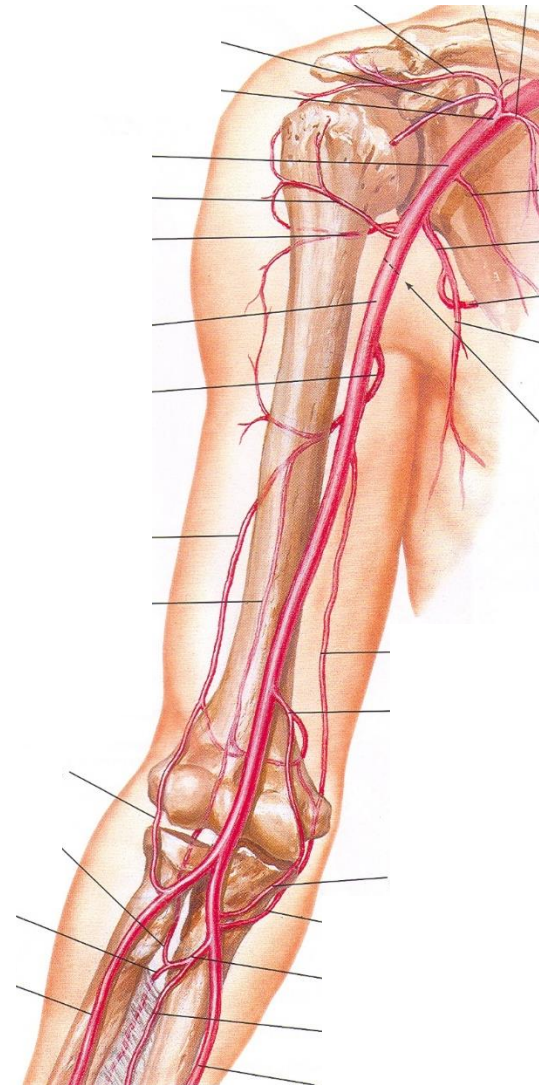


branches:

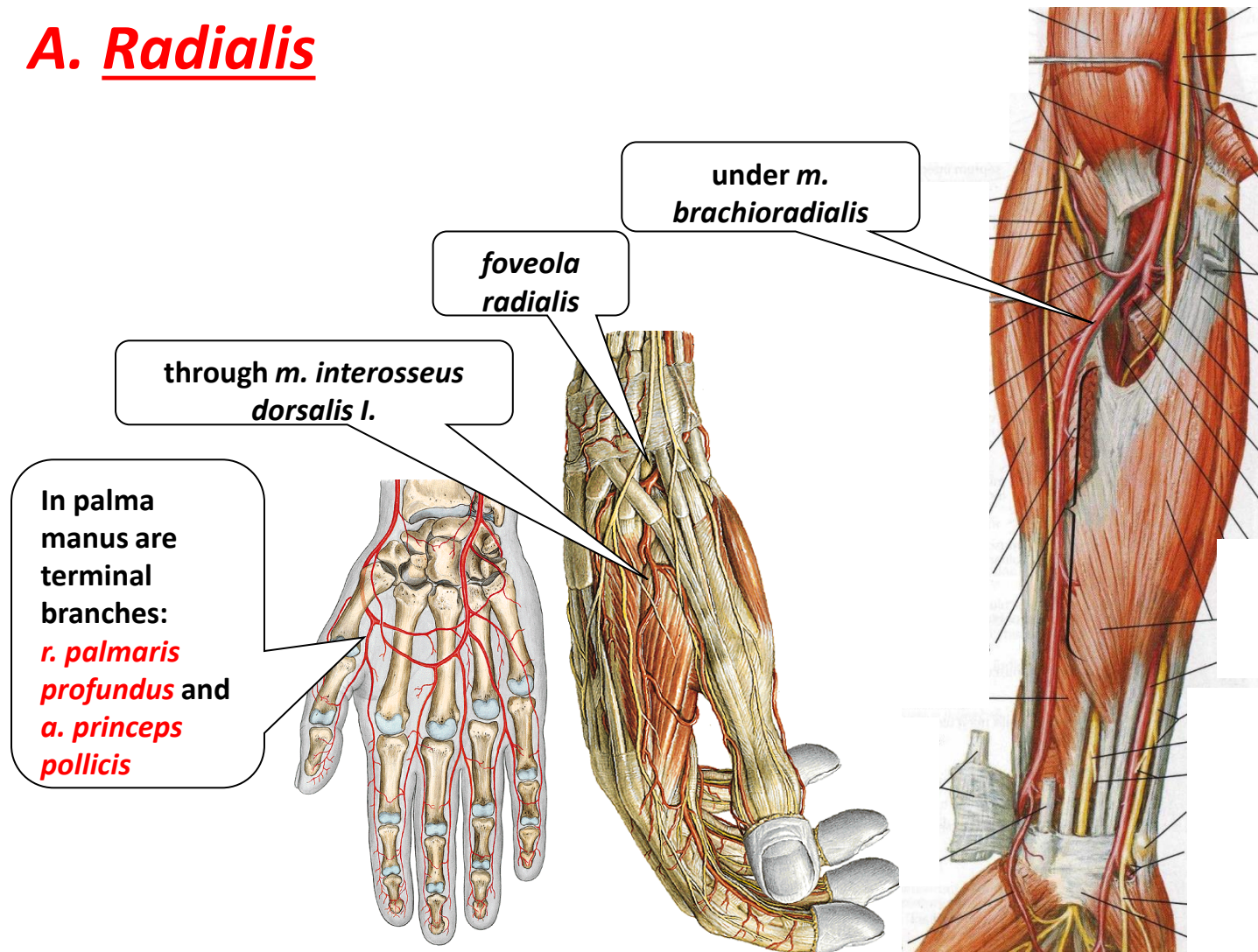
- 1) *a. profunda brachii*
(in sulcus n. radialis, *a. collateralis radialis*)
- 2) *a. collateralis ulnaris superior*
(behind med. epikondylus, into the rete articulare around articulatio cubiti)
- 3) *a. collateralis ulnaris inferior*
(into the rete articulare around articulatio cubiti)

Terminal branches:

- 4) *a. radialis* and *a. ulnaris*

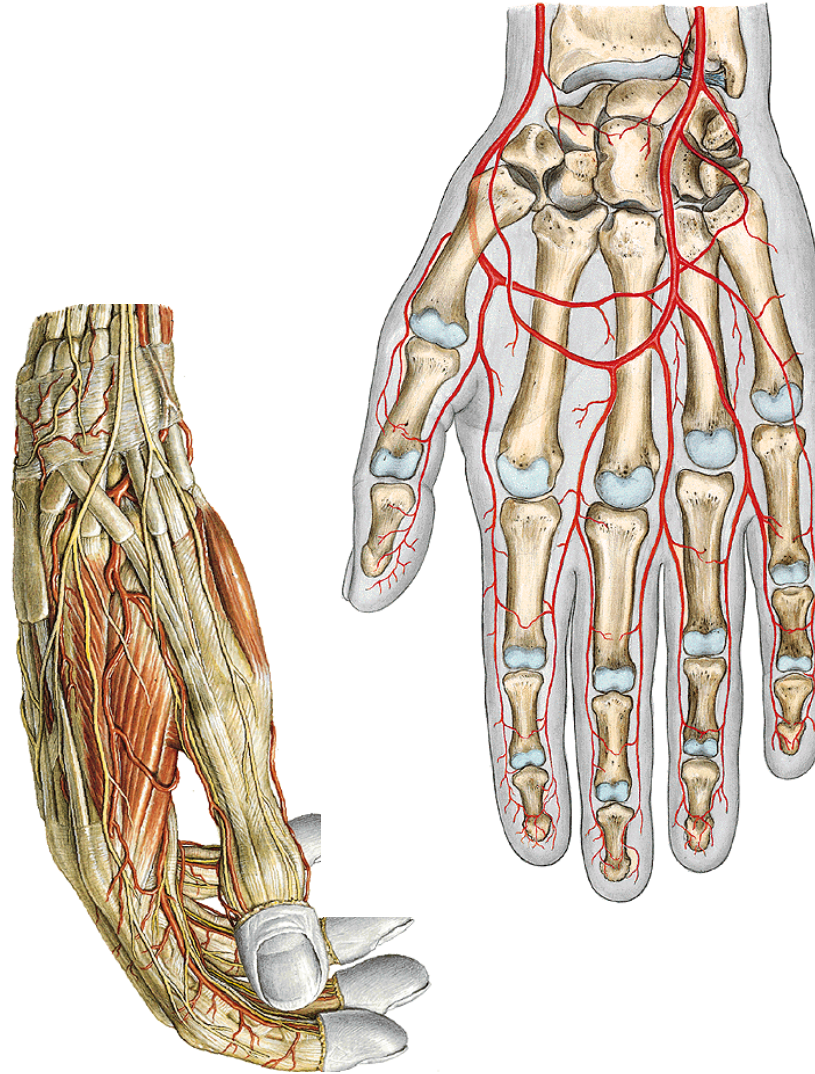


A. Radialis

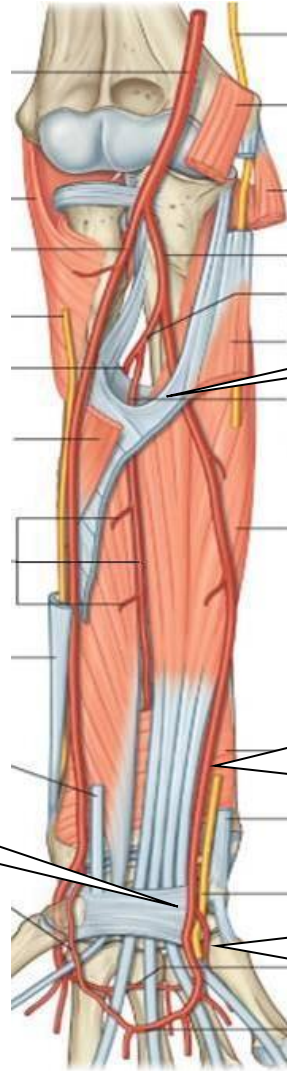


branches :

- a) Branches of rete articulare around articulatio cubiti
- b) Muscular branches
- c) *r. carpeus palmaris*
- d) *r. carpeus dorsalis*
(*aa. metacarpeae dorsales* –
–
aa. digitales dorsales)
- e) *a. metacarpea dorsalis I.*
aa. digitales dorsales
- f) *r. palmaris superficialis* –
creates *arcus palmaris superficialis*
- g) *r. palmaris profundus*
(creates *arcus palmaris profundus*, branches-
aa. metacarpeae palmares)
- h) *a. princeps pollicis-*
aa. digitales palmares



A. ulnaris



between *m. flexor digitorum profundus* and *superficialis*

Between *m. flexor carpi ulnaris* and *m. flexor digitorum superficialis*

On the surface of *retinaculum flexorum*

In the palm are its terminal branches: *r. palmaris spf. et prof.*

branches:

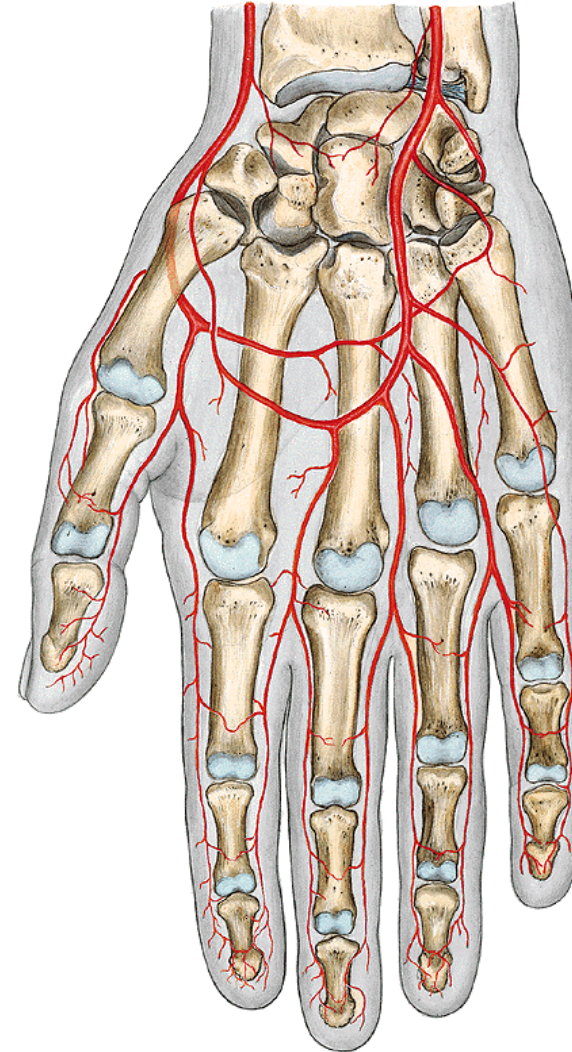
a) muscular

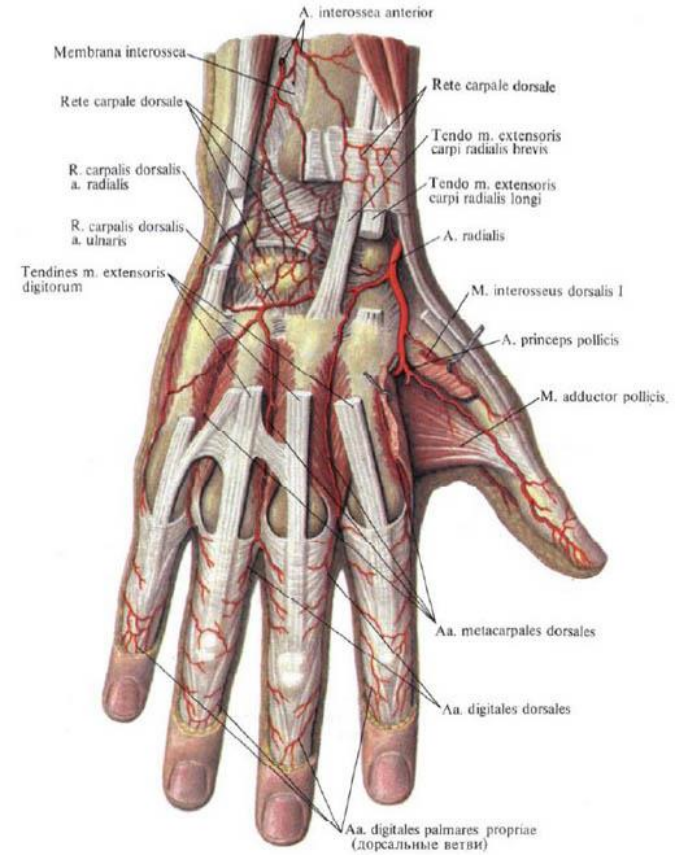
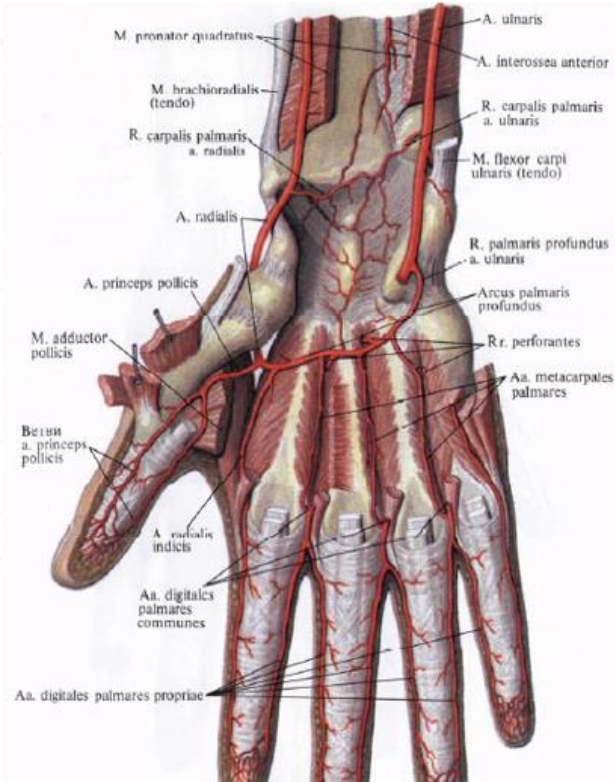
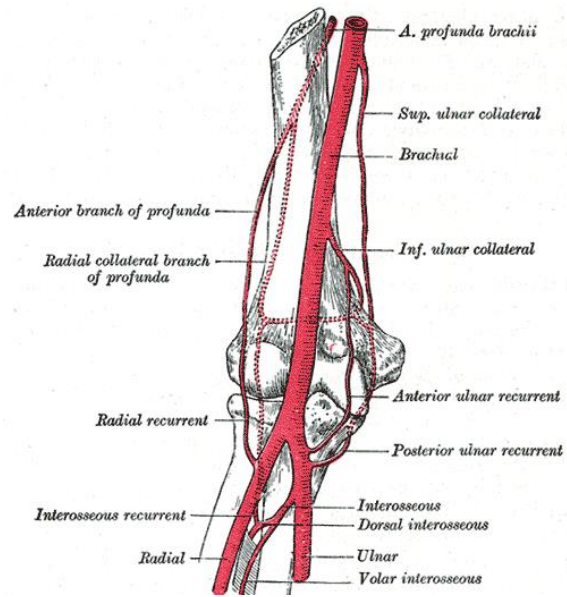
b) To radiocarpal joint

c) *r. palmaris superficialis* –
3 *aa. digitales palmares communes*,
aa. digitales palmares proprii,

For the thumb and lateral side of the
second finger is *a. princeps
pollicis* z *a. radialis*

d) *r. palmaris profundus* – (creates
arcus palmaris profundus,
branches *aa. metacarpeae
palmares*)



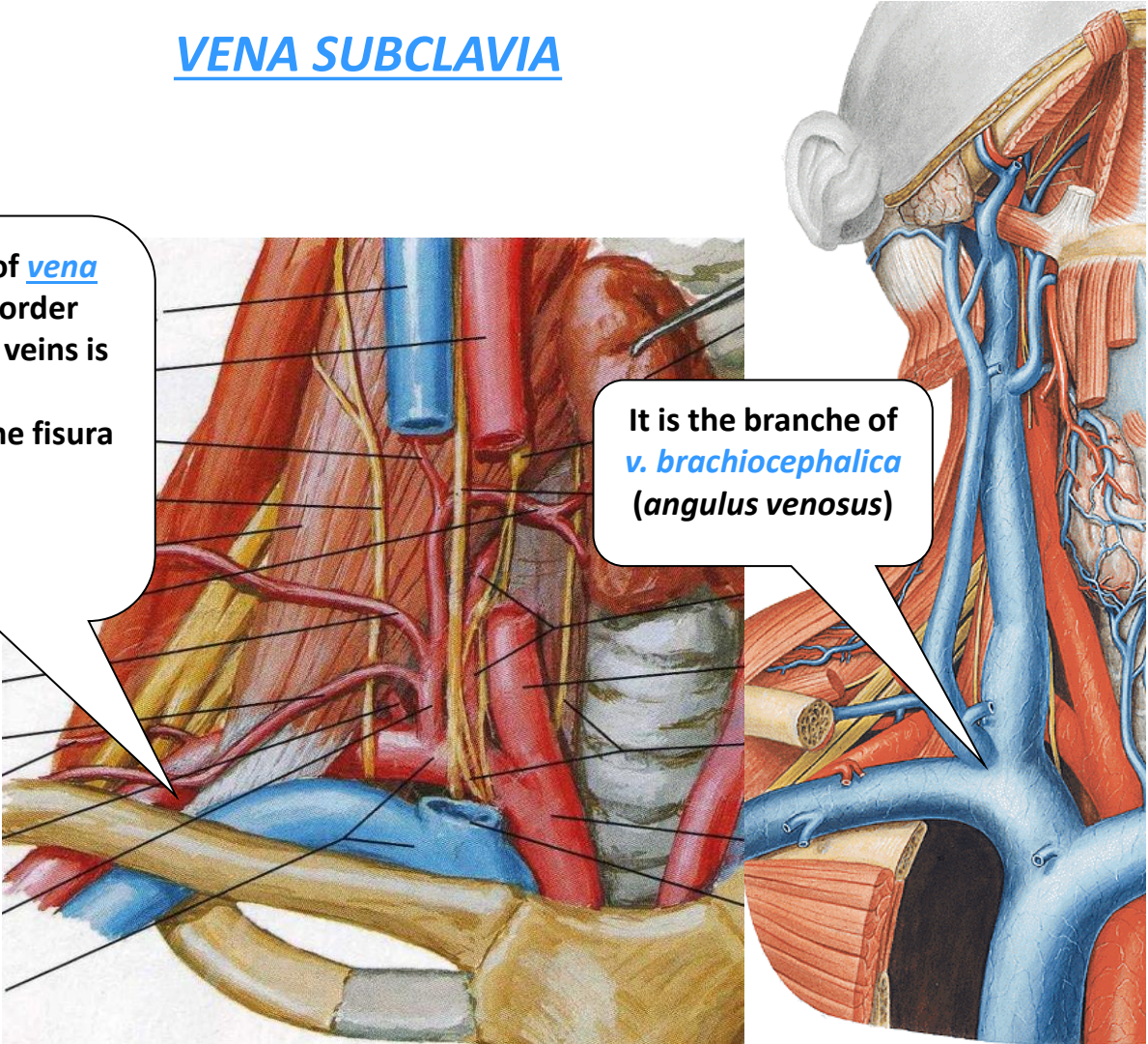


RETE ARTICULARE CUBITI
RETE CARPI PALMARE ET DORSALE

VENA SUBCLAVIA

Continuation of *vena axillaris*, the border between both veins is the 1.rib
Is in front of the fisura scalenorum!!!

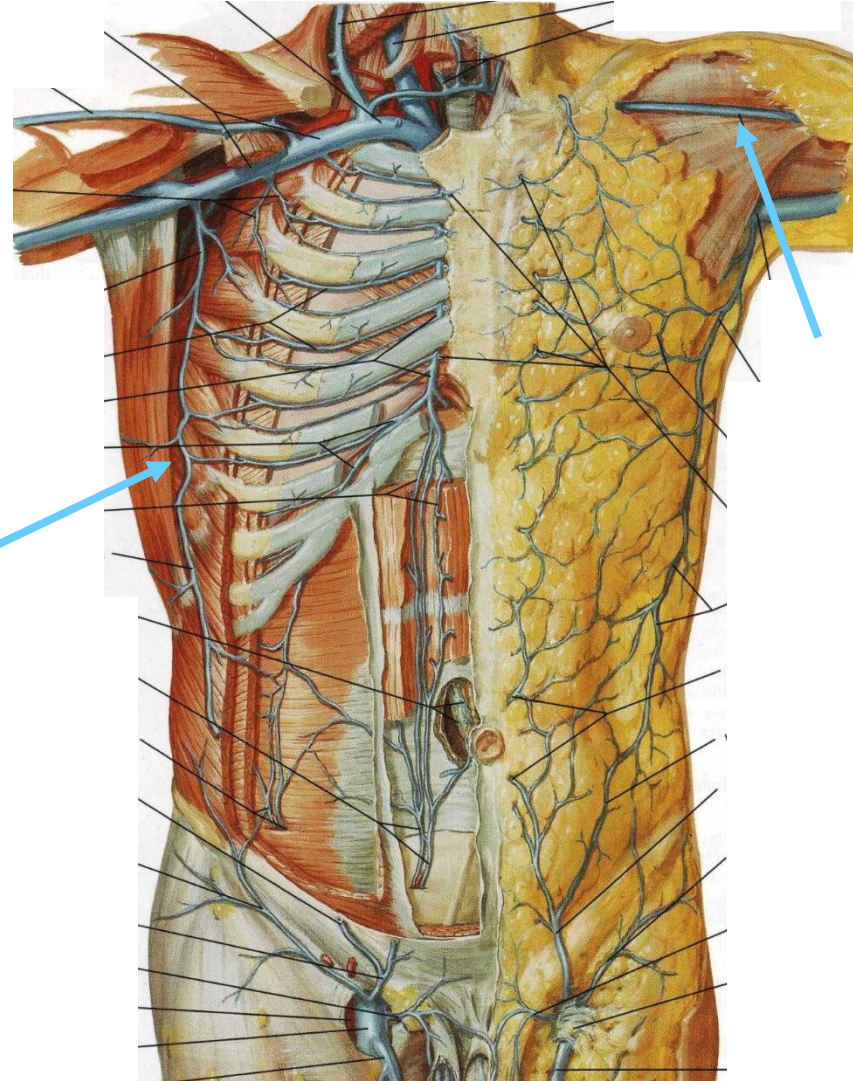
It is the branche of *v. brachiocephalica (angulus venosus)*



VENA AXILLARIS

In the site of attachment of *musculus pectoralis major* (in the level of *collum chirurgicum humeri*) continues from paired *vena brachialis*

Has a lot of collateral branches:
Venae thoracoepigastricae
Vena cephalica (in *sulcus bicipitalis lateralis* and in *trigonum deltoideopectoriale*)

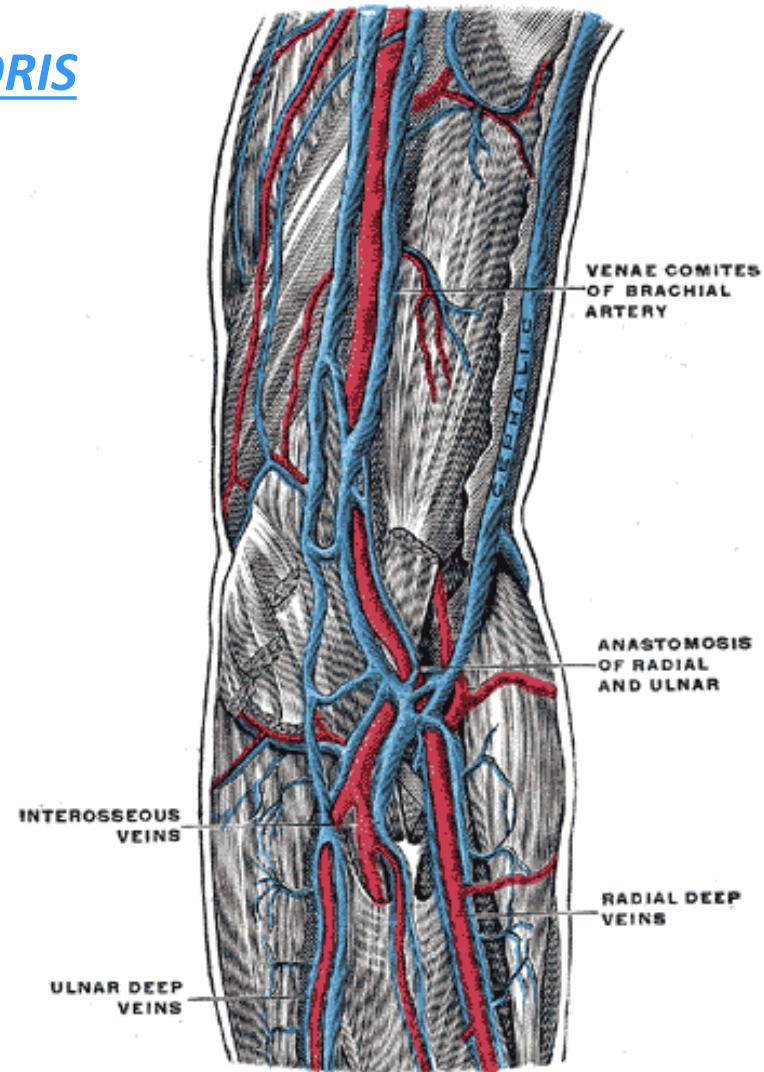


VENAE MEMBRI SUPERIORIS

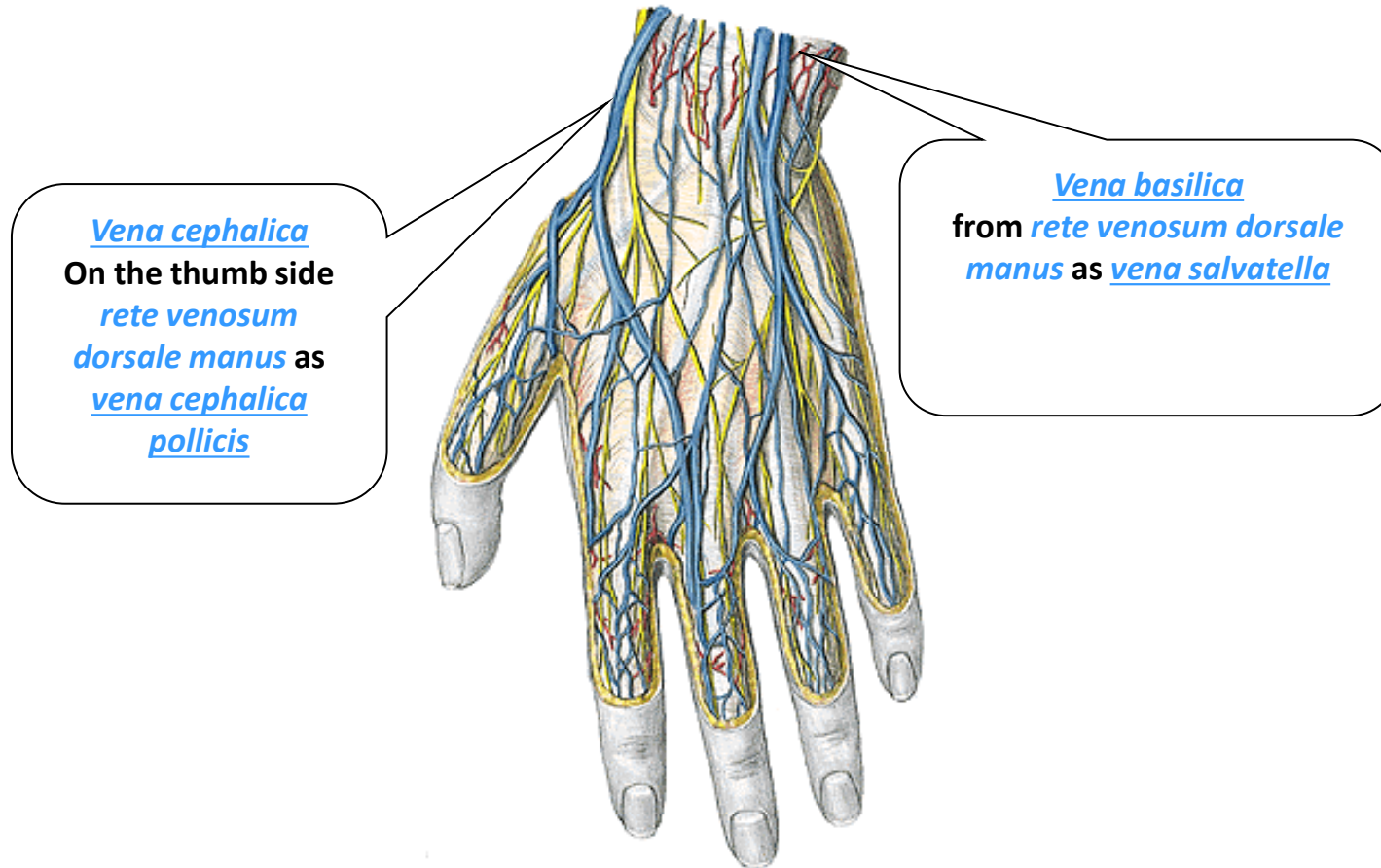
Two venous systems– deep and superficial

1) Deep veins:

Often paired, go along the arteries and have same name as arteries



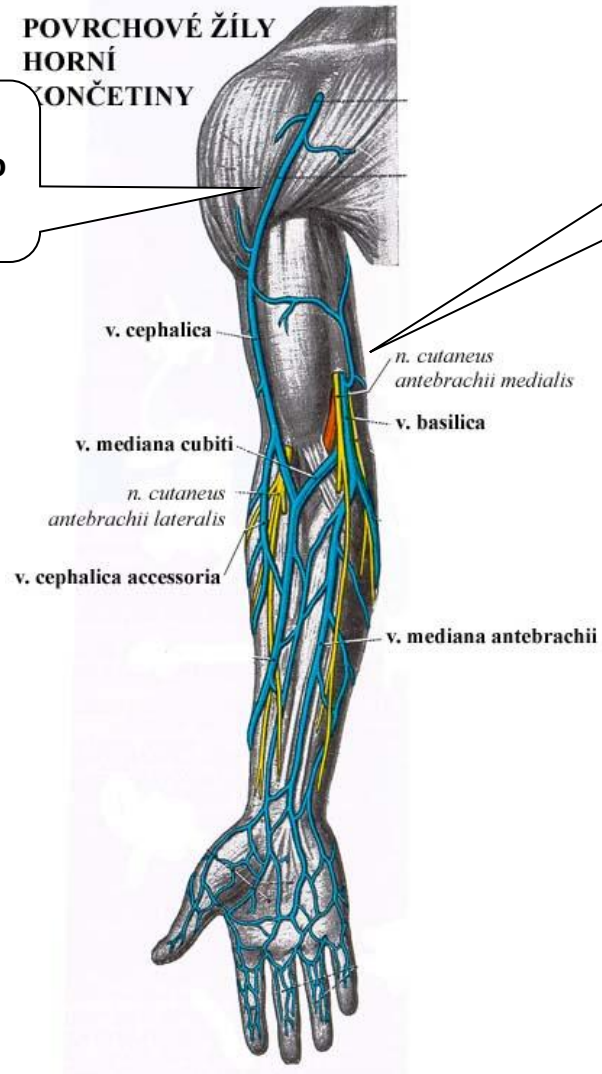
2) Superficial (subcutaneous) veins:
(rete venosum dorsale et palmare manus)



POVRCHOVÉ ŽÍLY
HORNÍ
KONČETINY

vena cephalica
On the radial side into
vena axillaris

vena basilica
On the ulnar side
into *vena brachialis*



vena mediana cubiti



PLEXUS BRACHIALIS

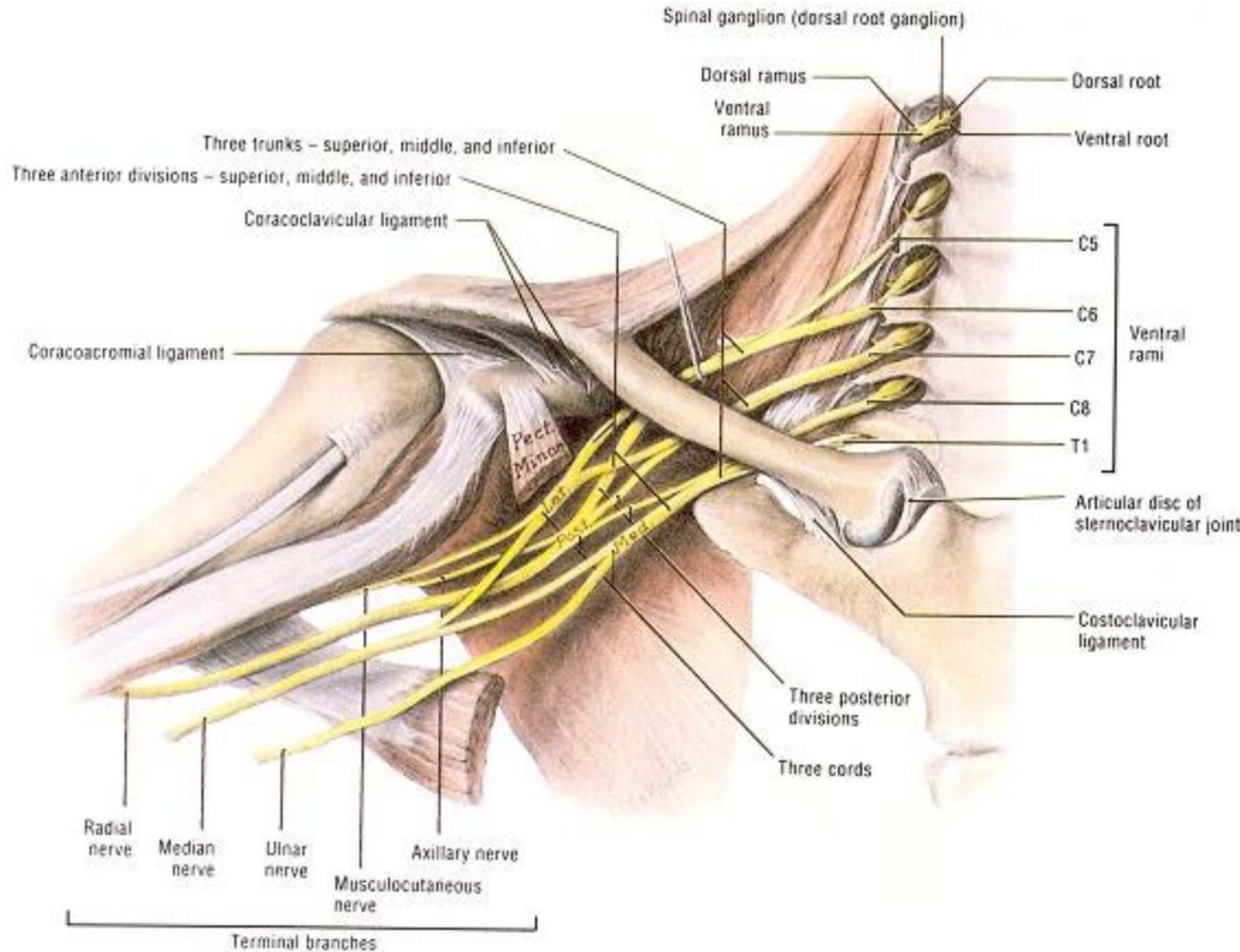
rami ventrales nervorum
spinalium C₅ – Th₁

innervation of
upper extremity,
heterochtonic
muscles of thorax
and back

Fissura scalenorum

supraclavicular part

infraclavicular part



SUPRACLAVICULAR PART

n.dorsalis scapulae

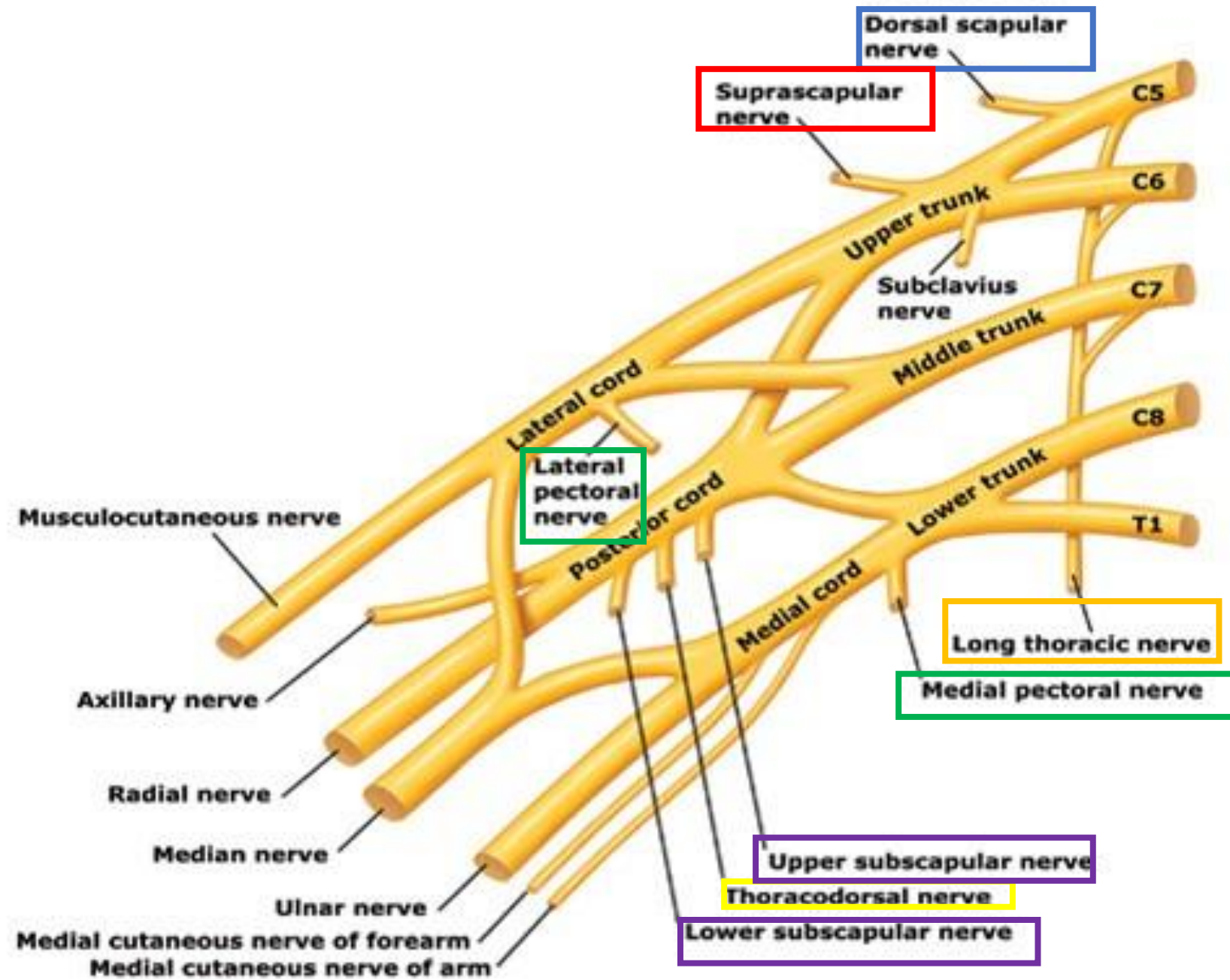
n.suprascapularis

n.thoracicus longus

nn.pectorales

n.subscapularis

n.thoracodorsalis



INFRACLAVICULAR PART

Medial cord:

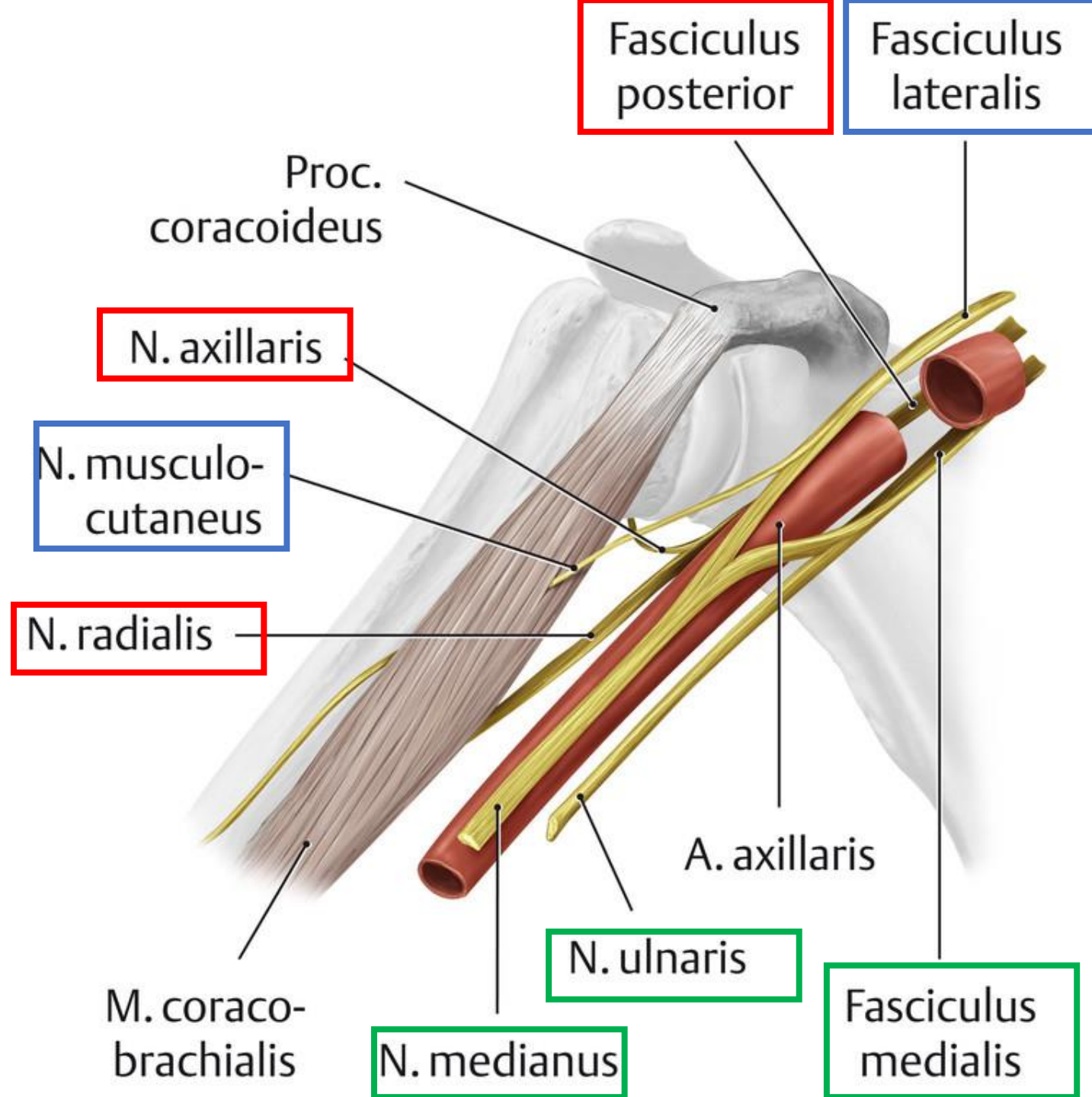
- Nervus ulnaris
- Nervus cutaneus brachii medialis
- Nervus cutaneus antebrachii medialis
- Radix medialis nervi mediani

Lateral cord:

- Nervus musculocutaneus
- Radix lateralis nervi mediani

Posterior cord:

- Nervus radialis
- Nervus axillaris



Nervus medianus

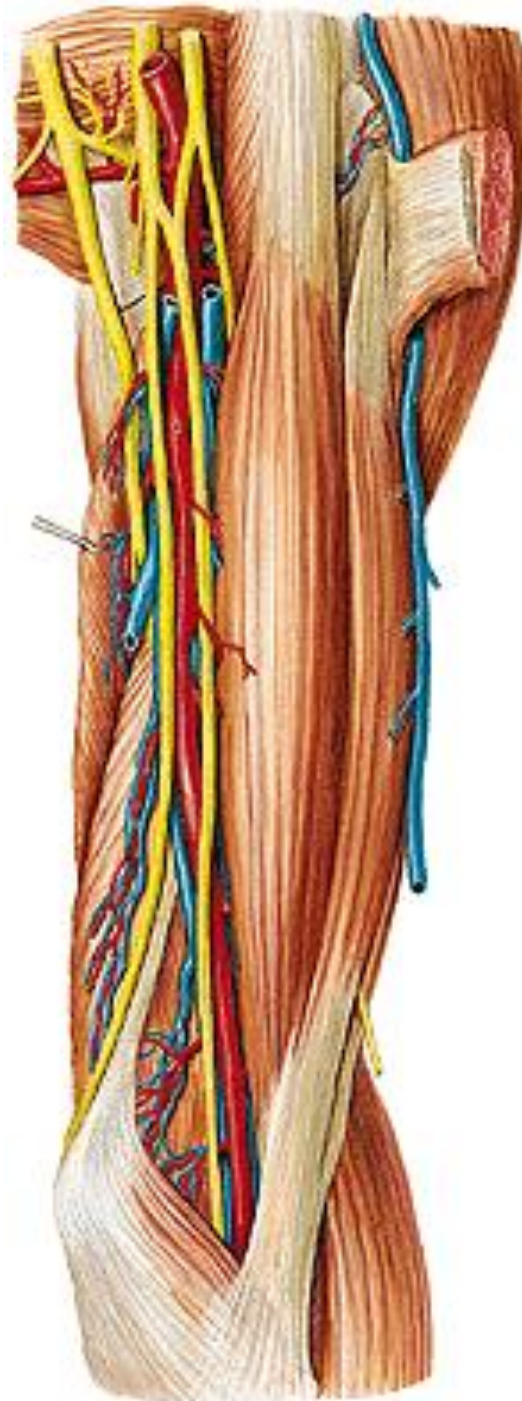
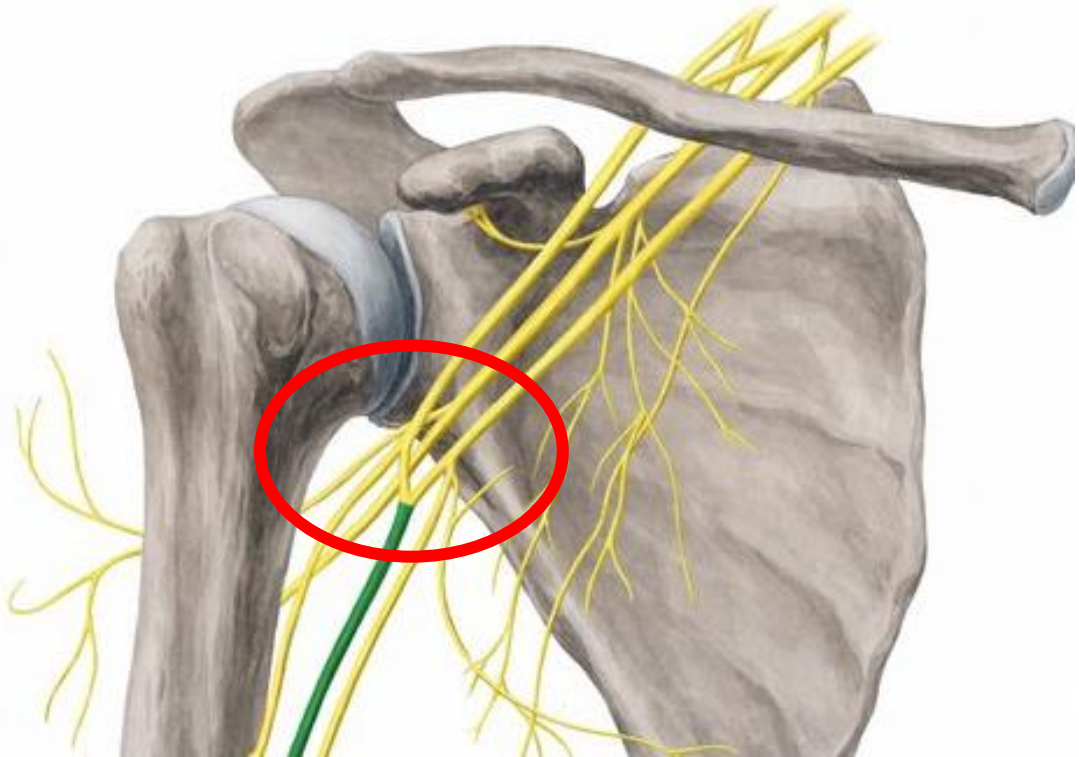
Radix medialis et lateralis

Sulcus bicipitalis medialis

Canalis pronatorius

Forearm:

Muscles of anterior group



Nervus ulnaris

Medial cord

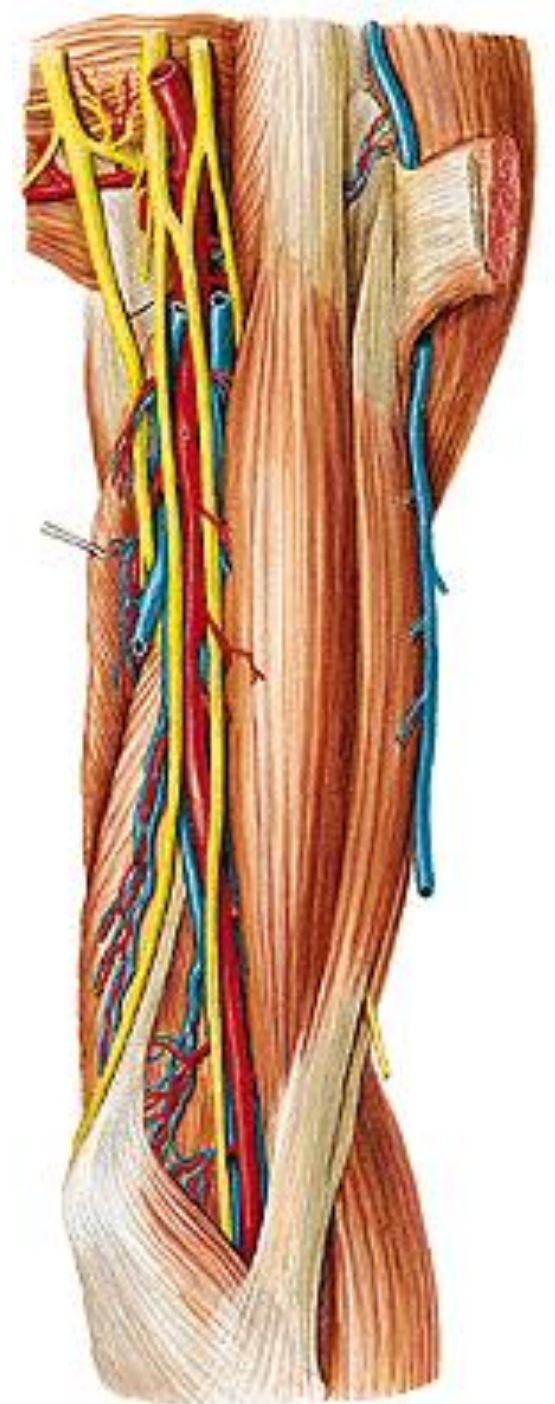
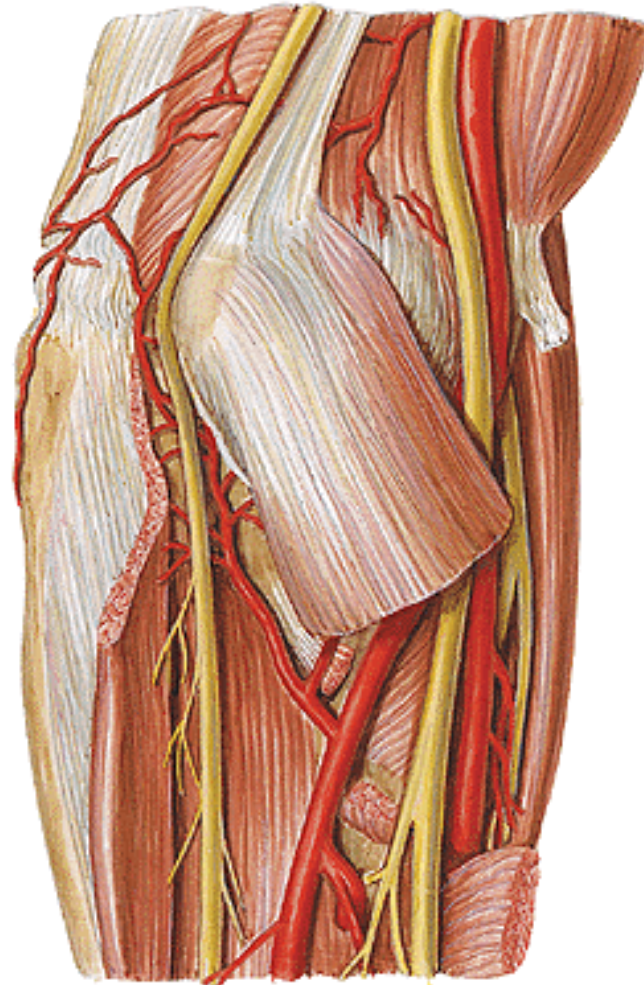
Sulcus bicipitalis medialis

Sulcus nervi ulnaris

Forearm:

Musculus flexoris carpi ulnaris

Medial part of musculus
flexor digitorum profundus



Innervation of the palmar side of hand

Nervus medianus:

Muscles of thenar

Nervus ulnaris:

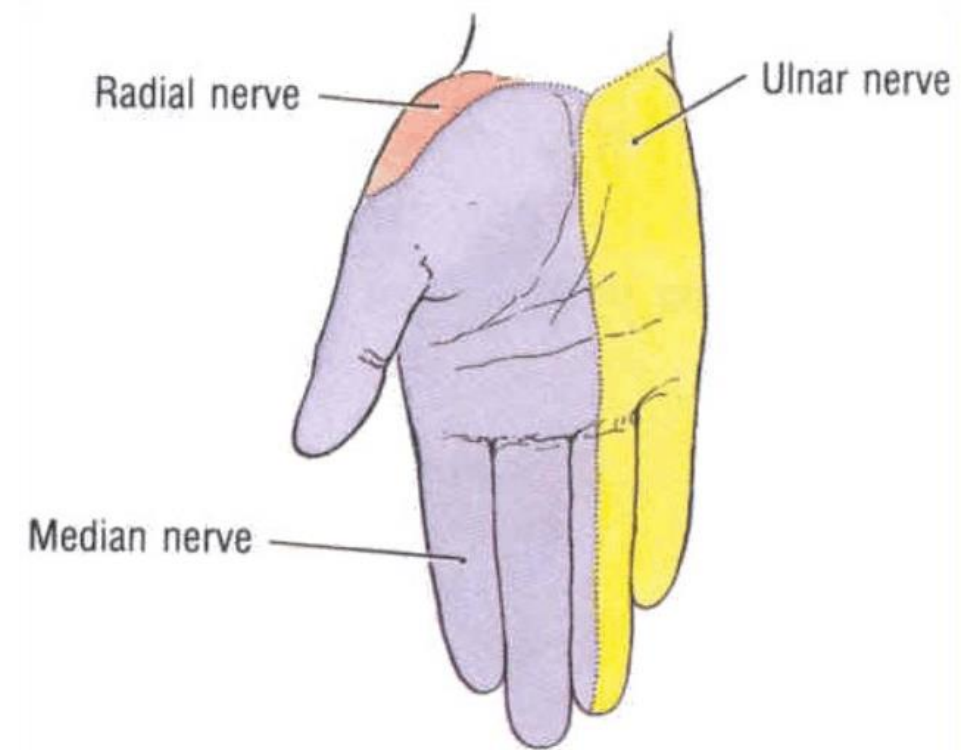
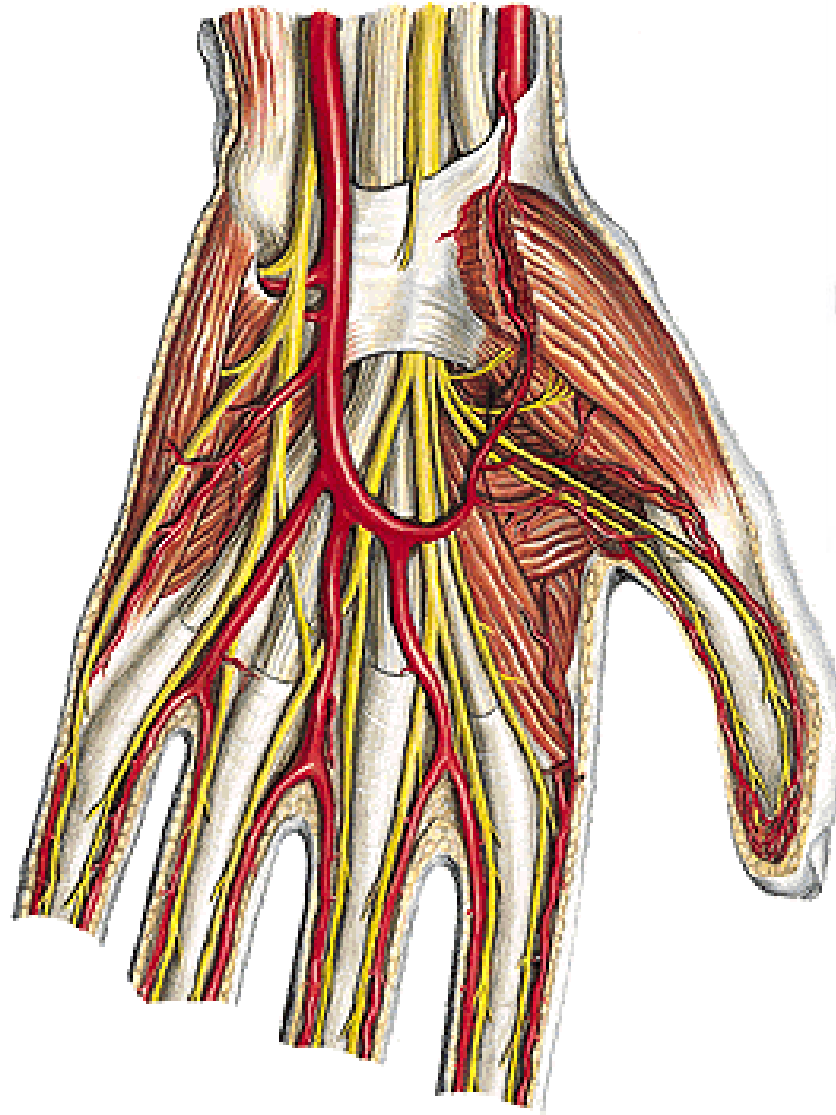
Muscles of hypothenar

Musculi interossei

Musculi lumbricales 3-4

Musculus adductor pollicis

Caput profundum musculi
flexoris pollicis brevis



Sensoric innervation

Nervus radialis

Arm:

Muscles of posterior group

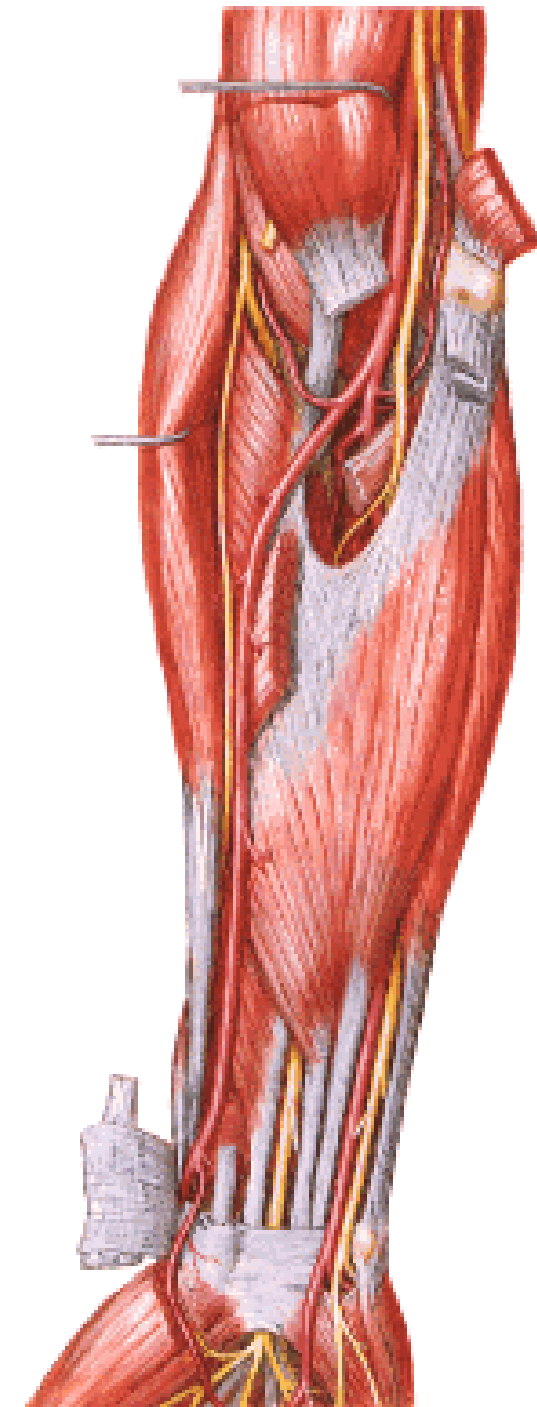
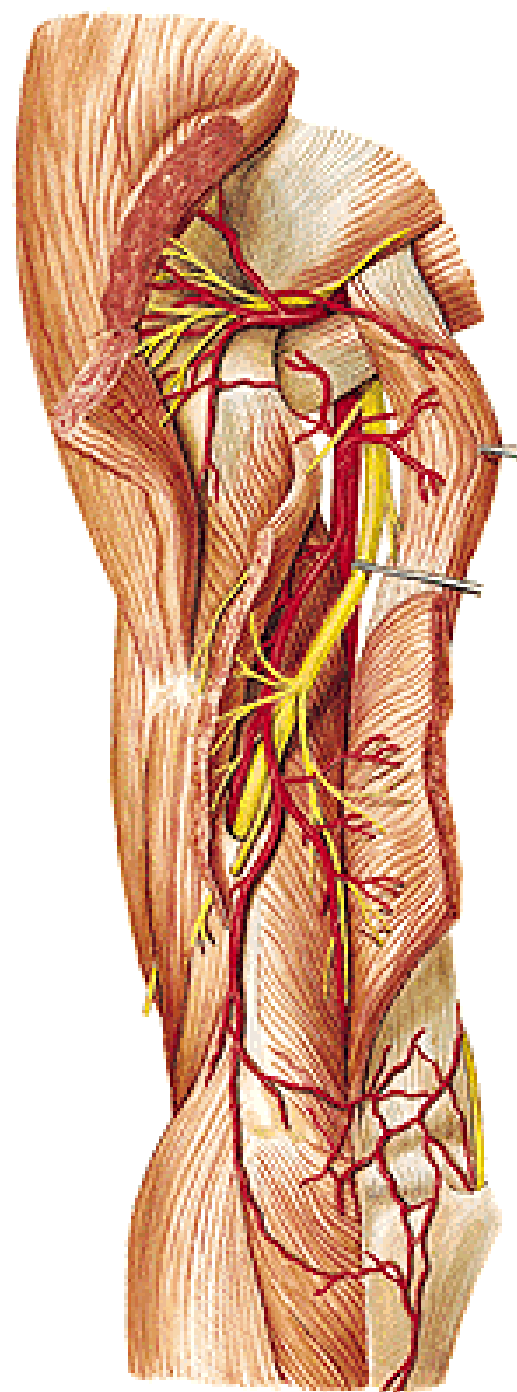
Skin (posterior and lateral side)

Forearm:

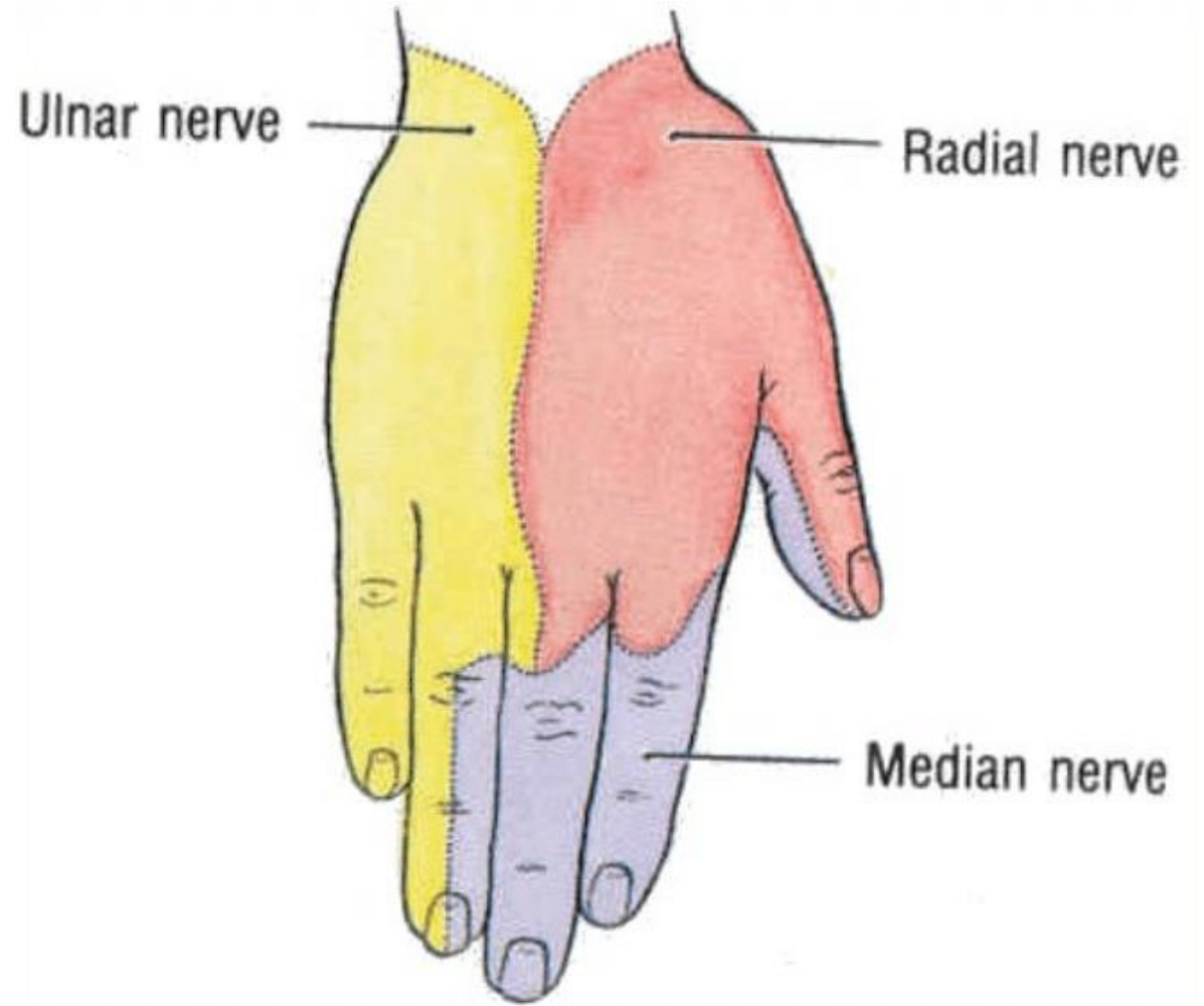
Superficial and deep branch

Muscles of lateral and posterior group

Skin (posterior side)



Innervation of the dorsal side of hand



Nervus musculocutaneus

Arm:

Muscles of anterior group – penetrates coracobrachialis

Forearm:

Skin (lateral side) –

Nervus cutaneus antebrachii lateralis



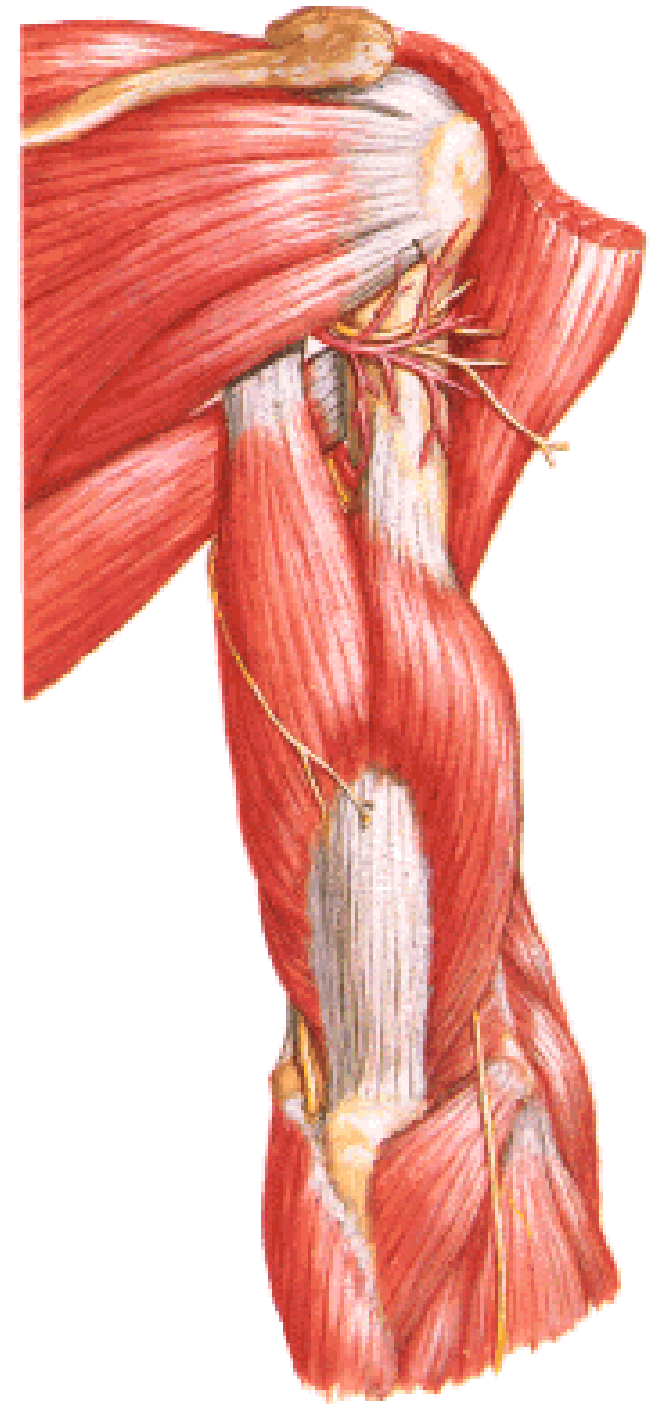
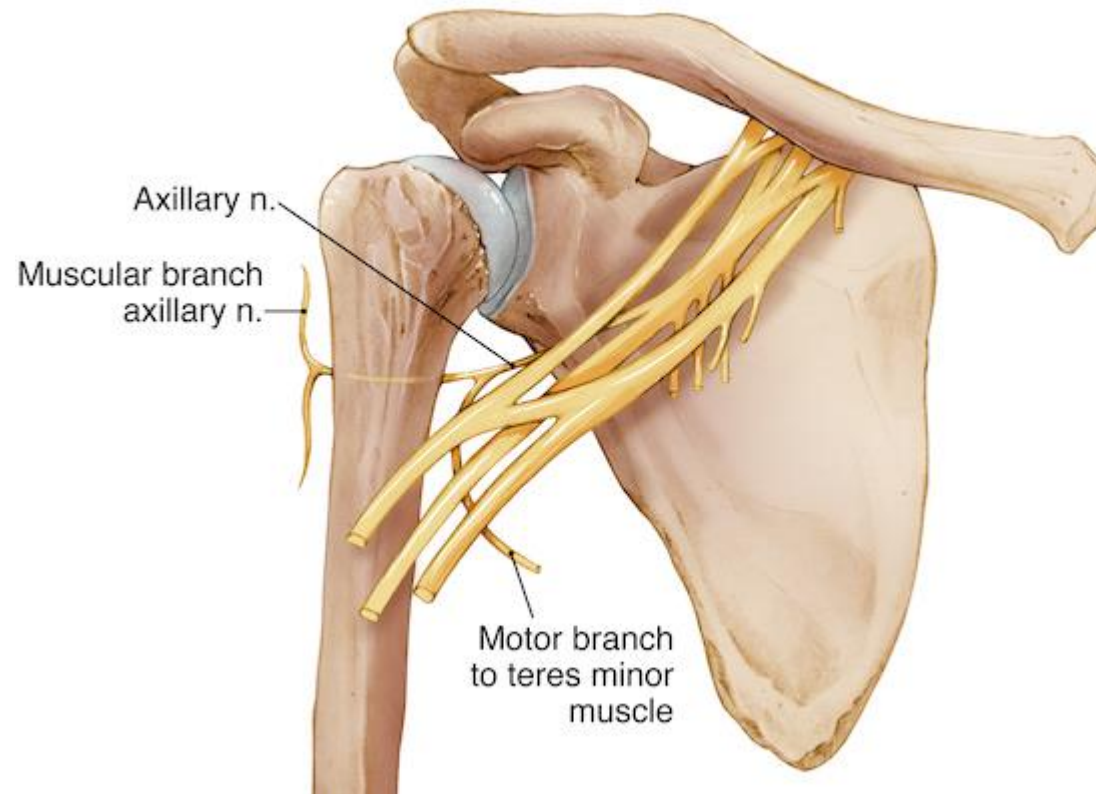
Nervus axillaris

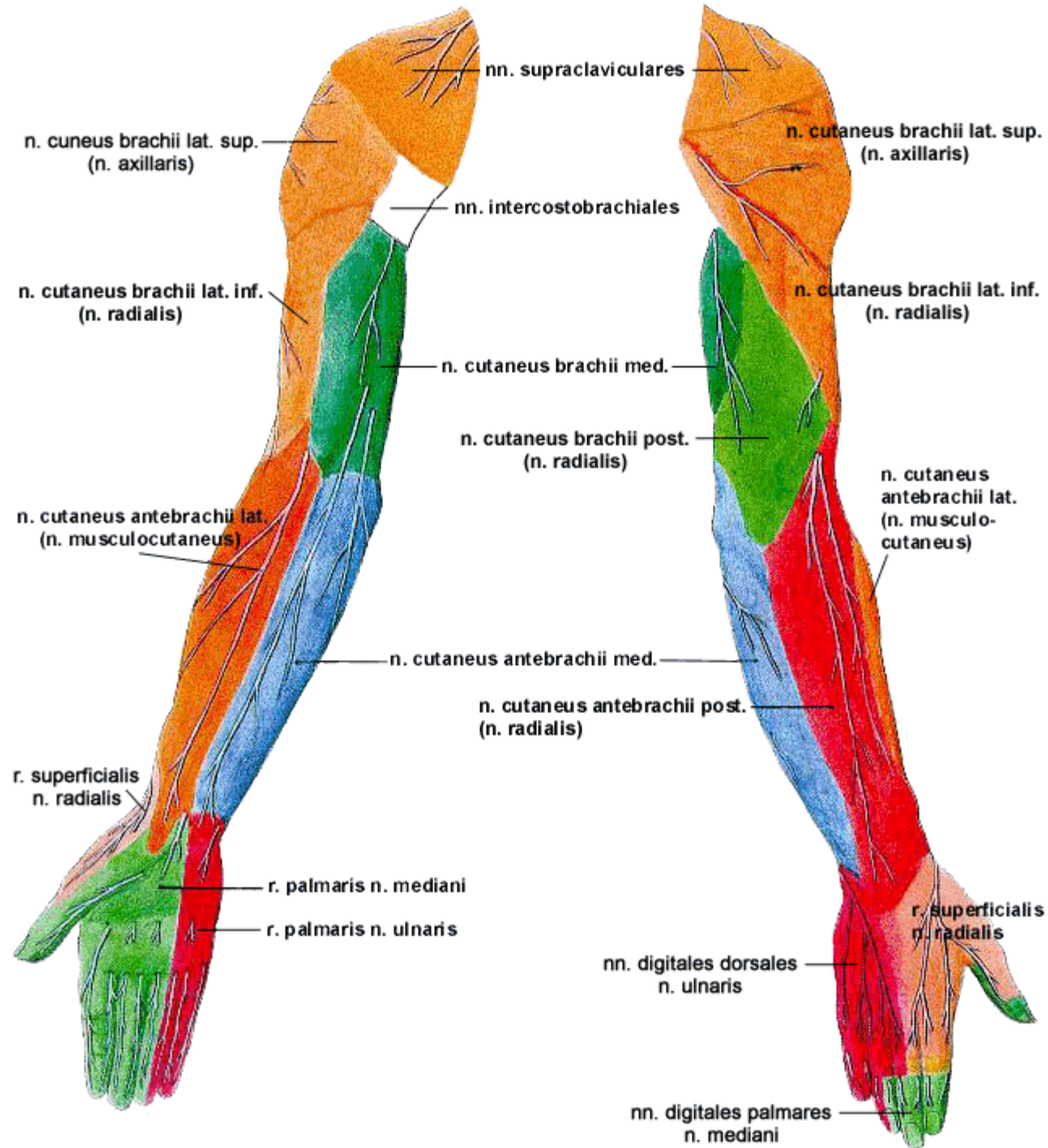
Posterior cord

Penetrates foramen humerotricipitale

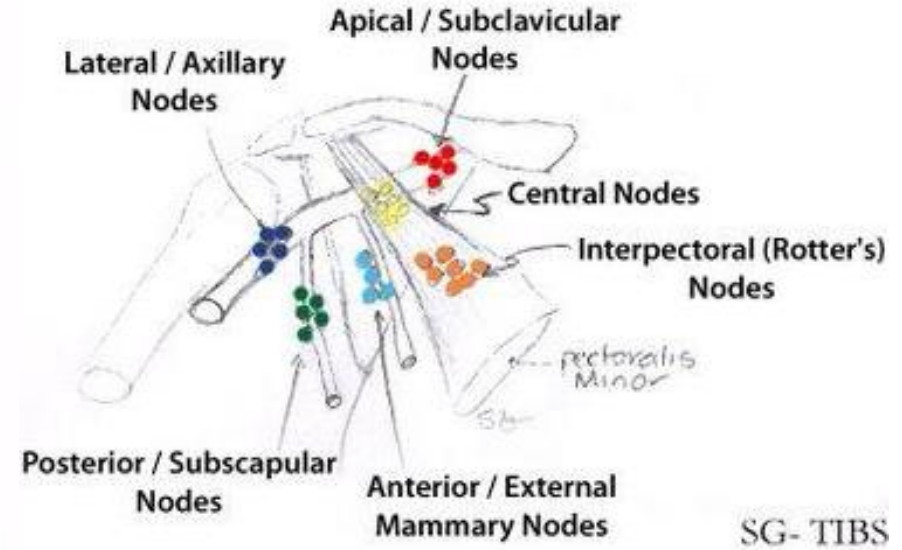
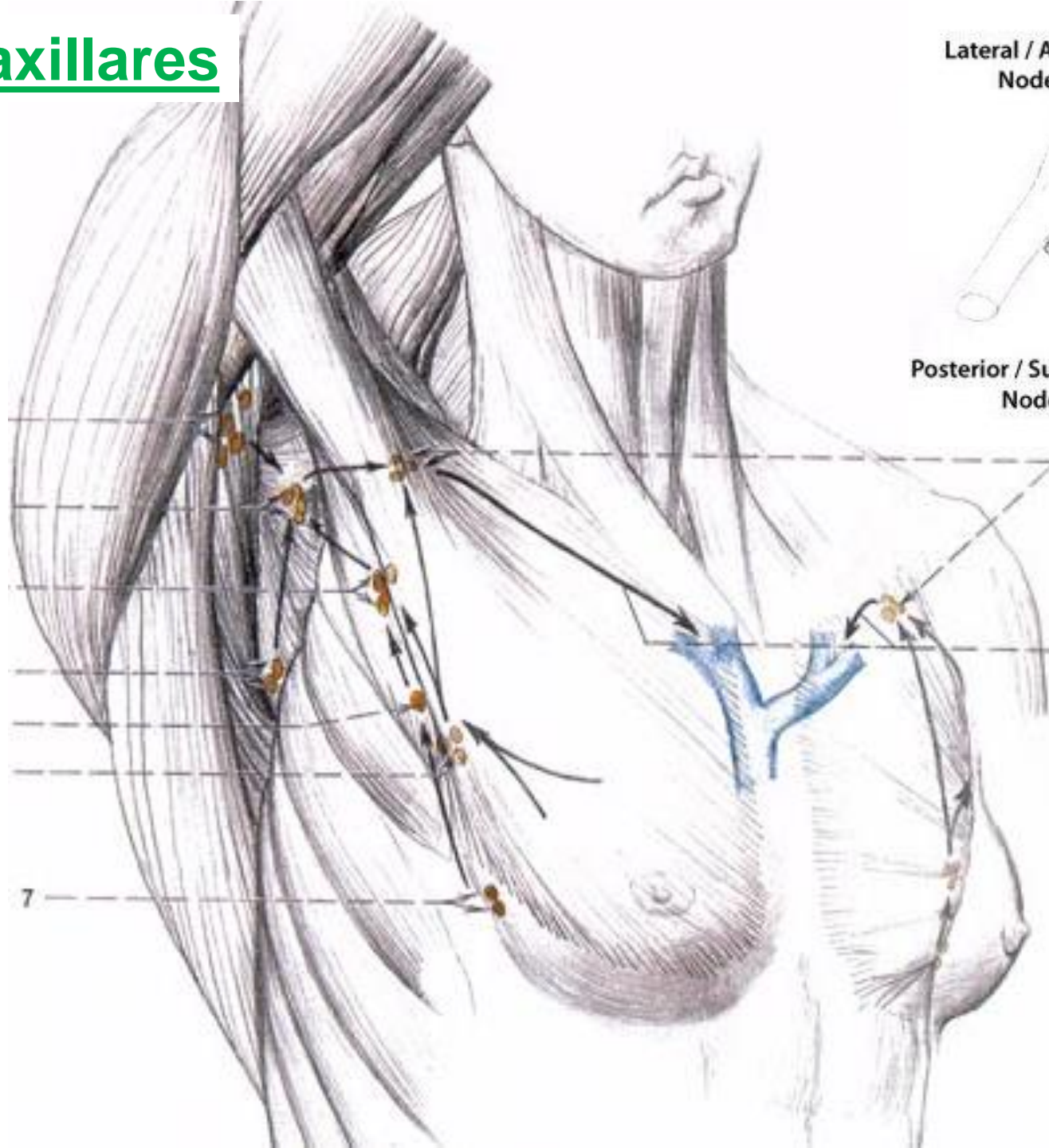
Innervates teres minor and deltoideus

Skin of deltoid region





Nodi axillares



40 nodes
6 groups

nodi lymphatici
centrales
laterales
subscapulares
pectorales (Sorgius)
interpectorales

apicales
(infraclaviculares)

Lymphatic system of the upper limb

Superficial system

Collectors:

medial

*(nodi lymf. cubitales
superf.)*

lateral

anterior

Deep system- alongside arteries

arcus lymphaticus

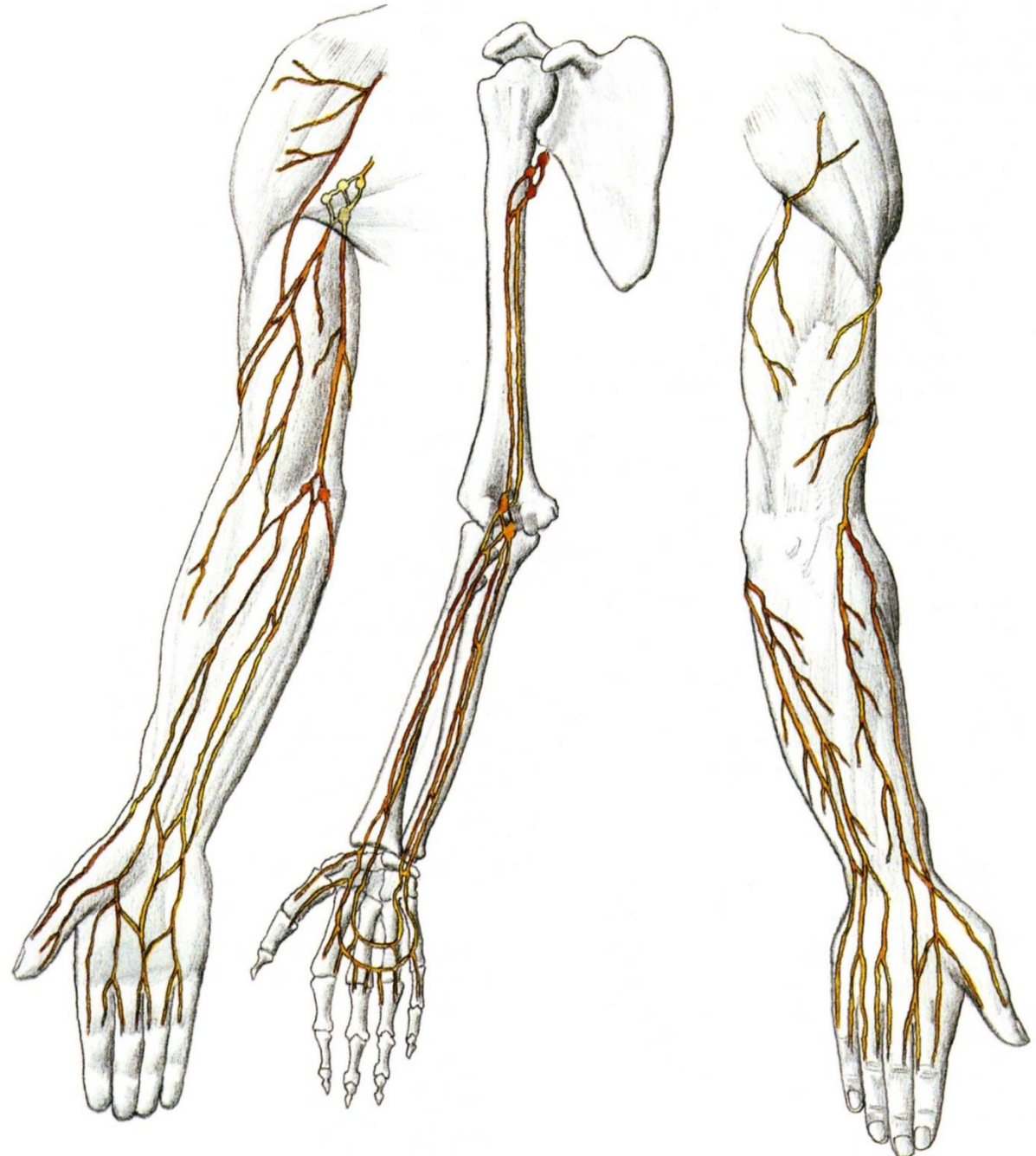
palmaris spf. et prof.

nodi lymf. cubitales prof.,

brachiales

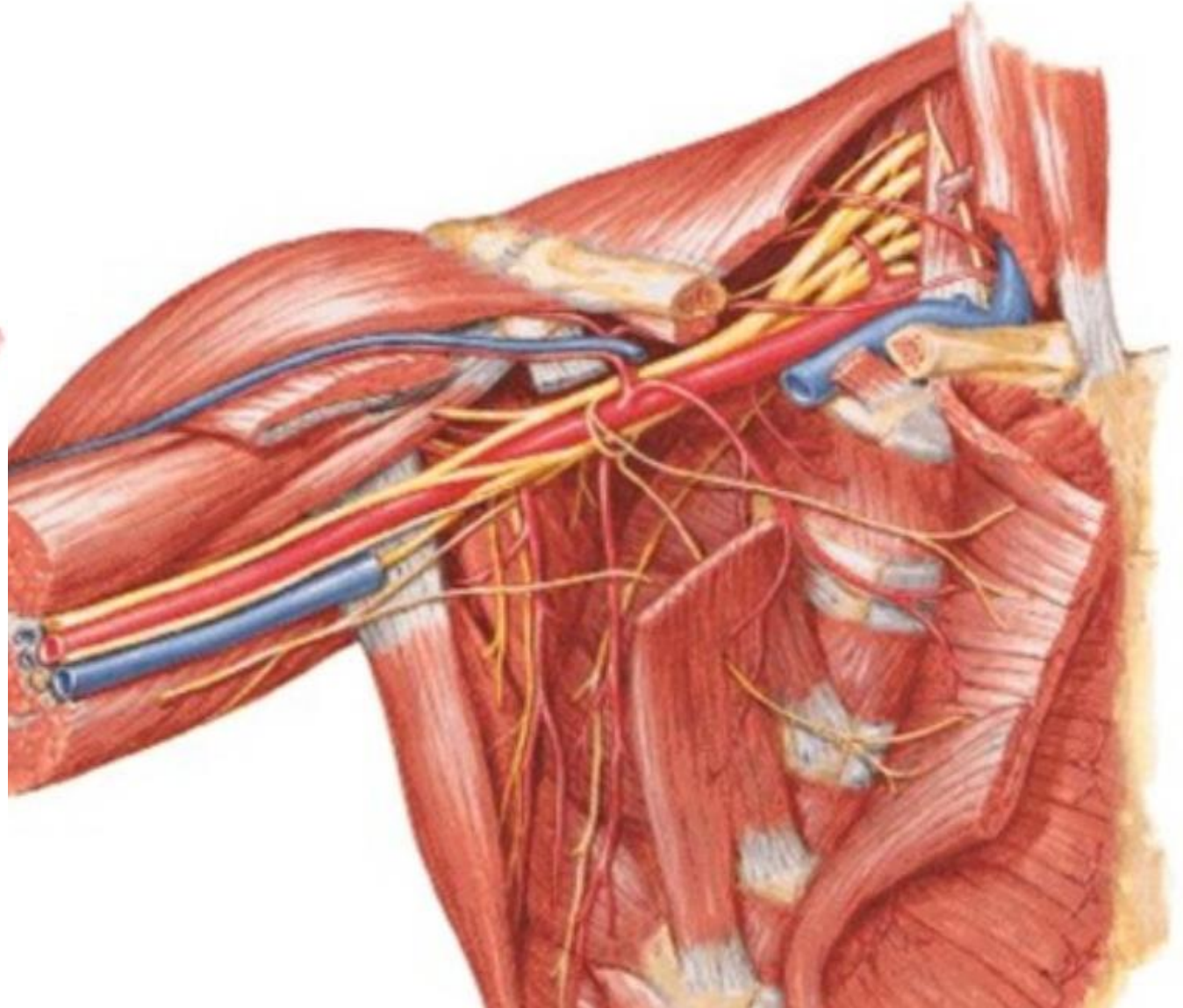
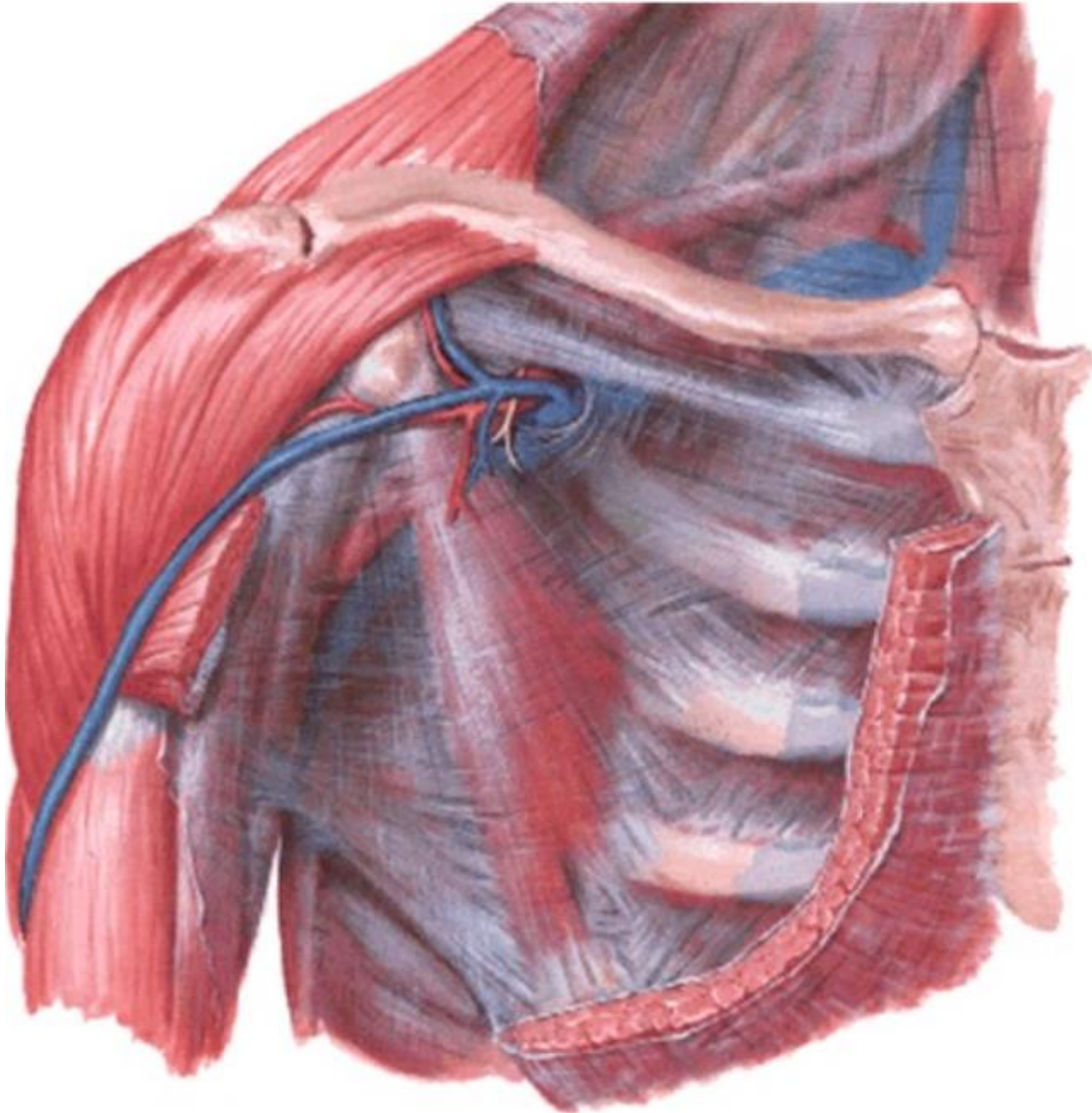


nodi axillares

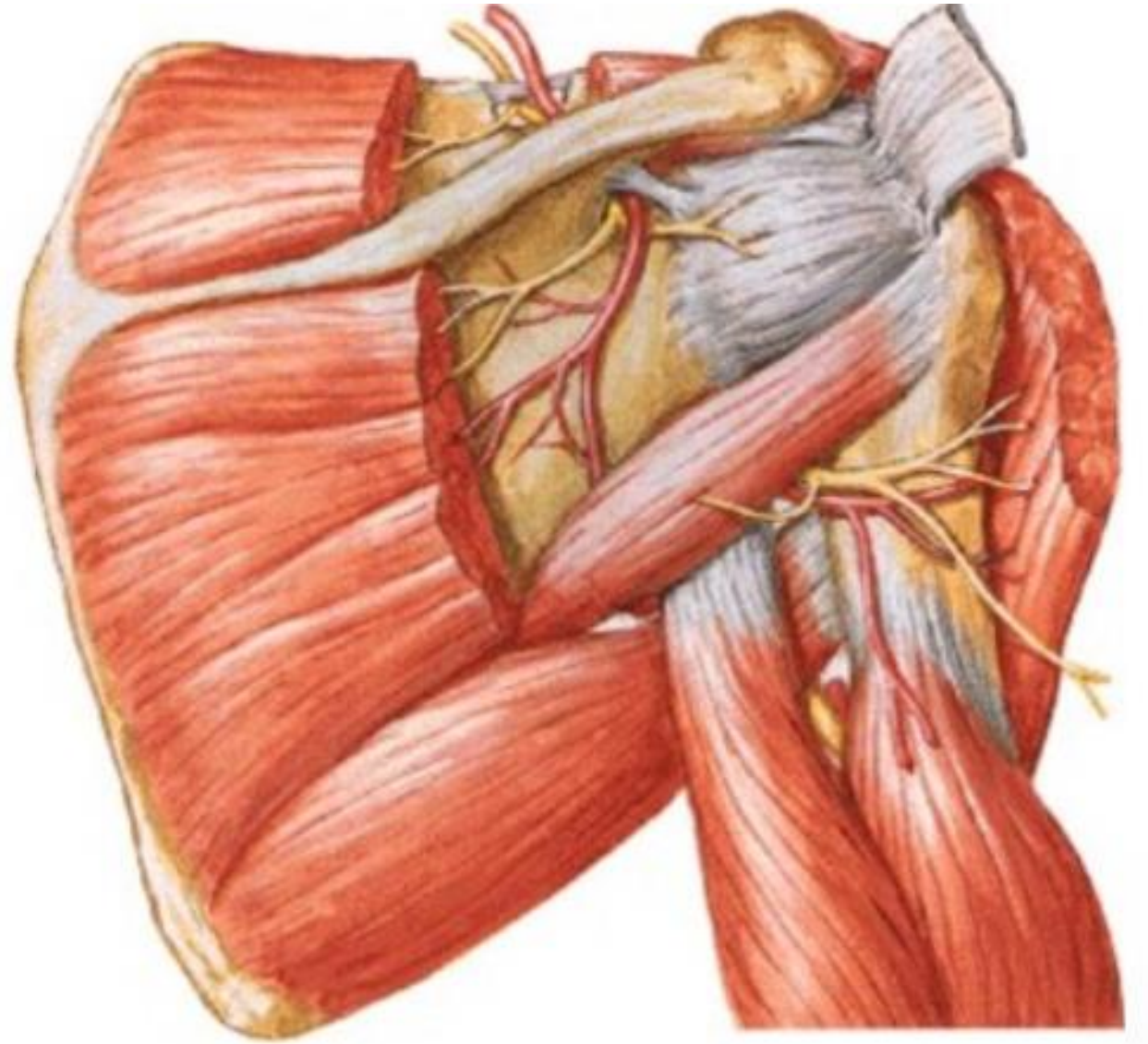


Axilla

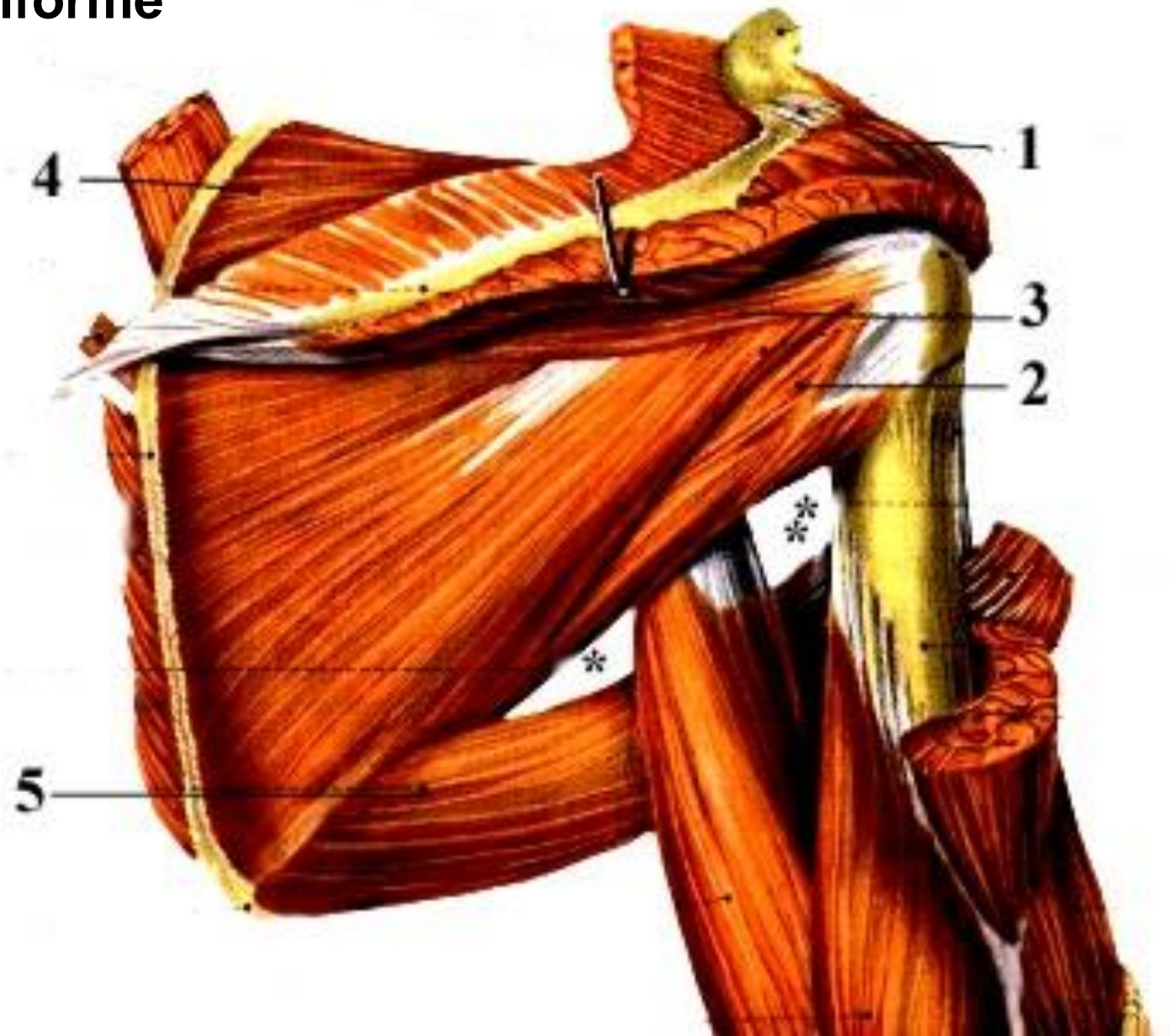
S



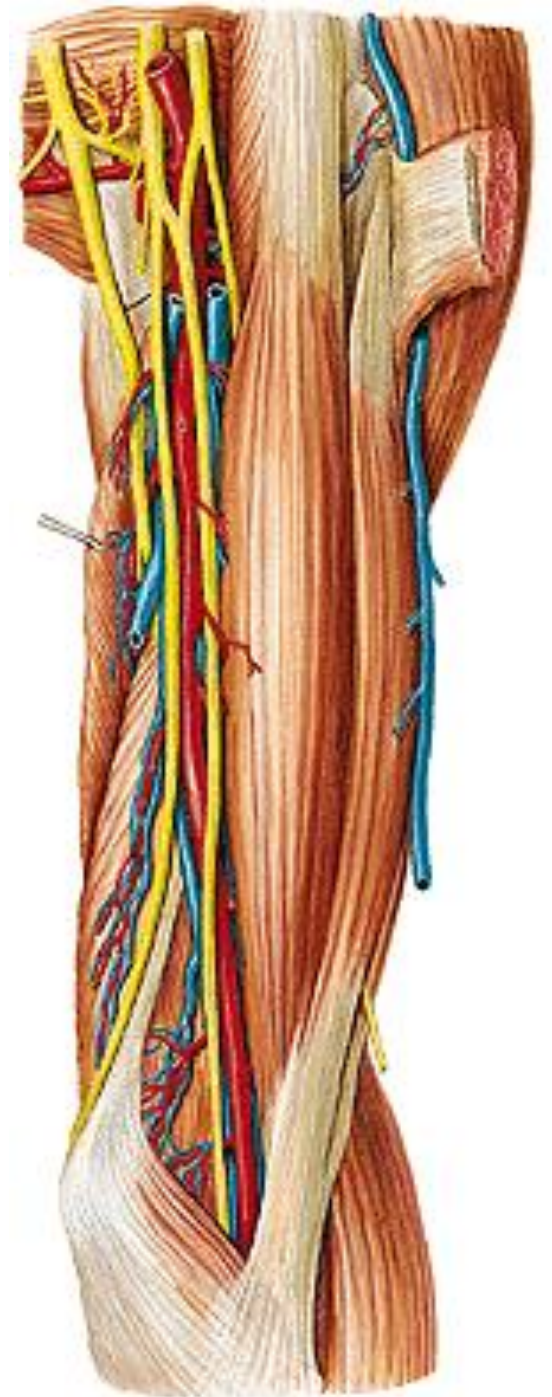
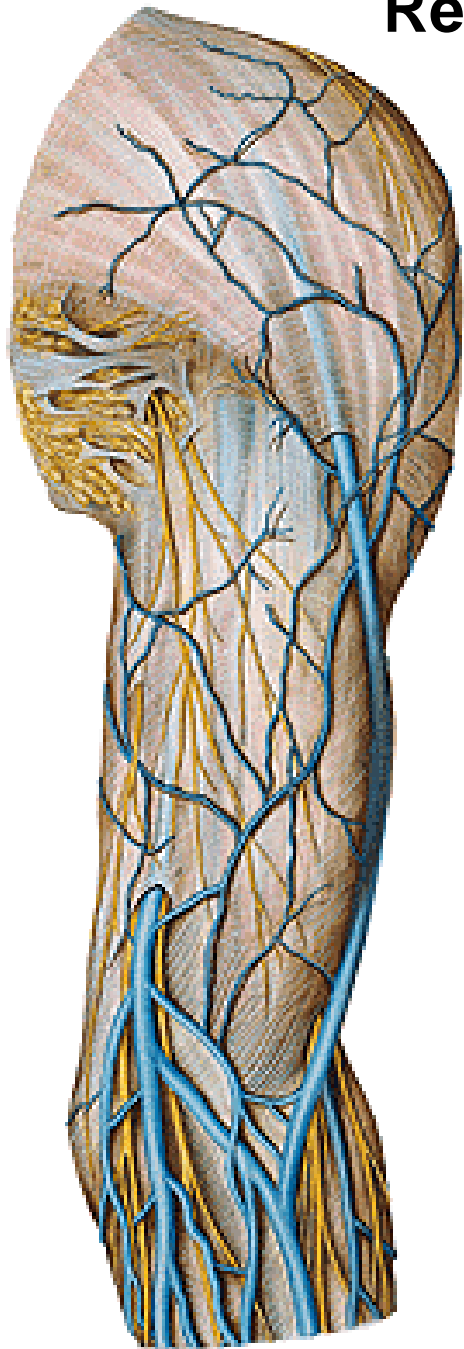
Regio scapularis



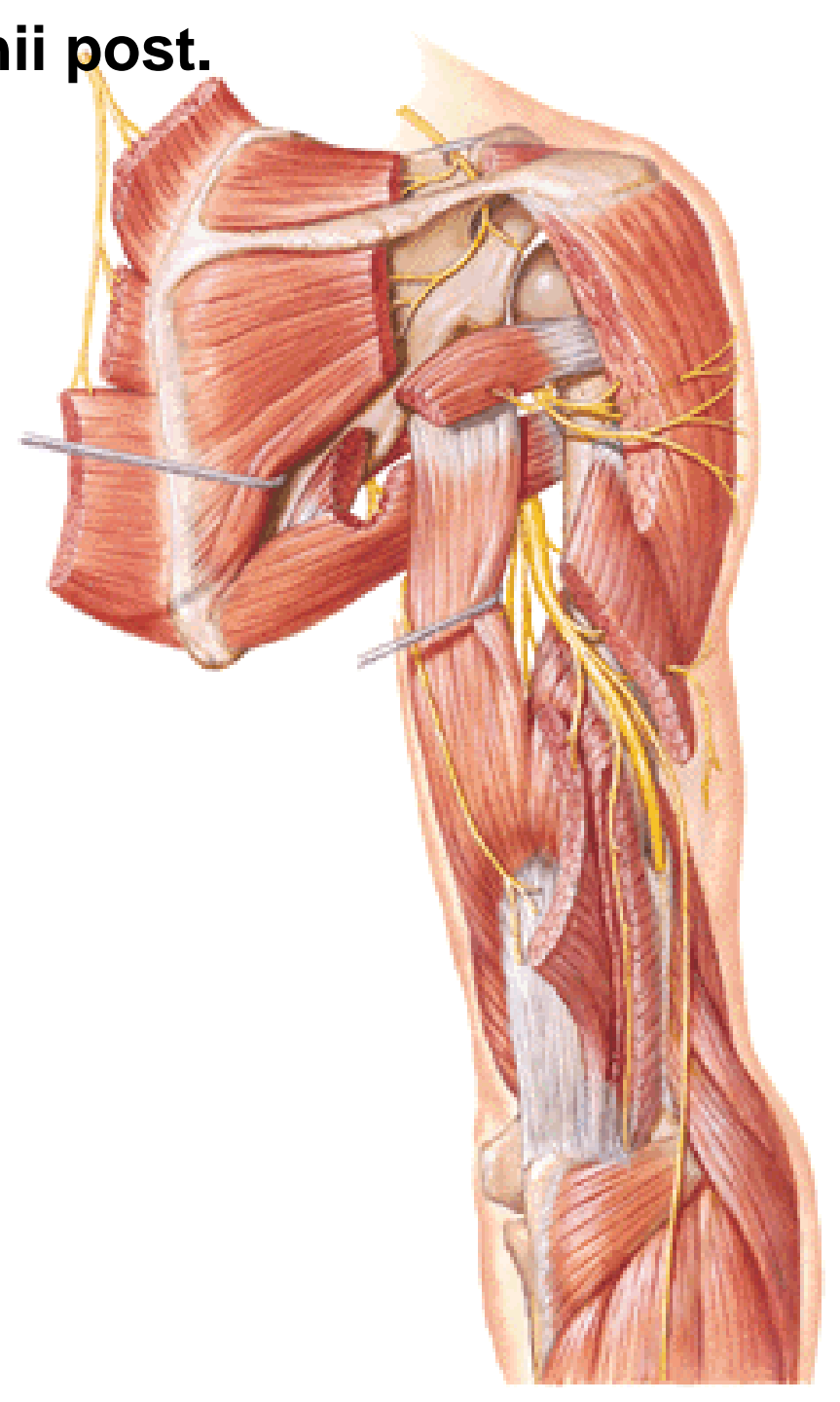
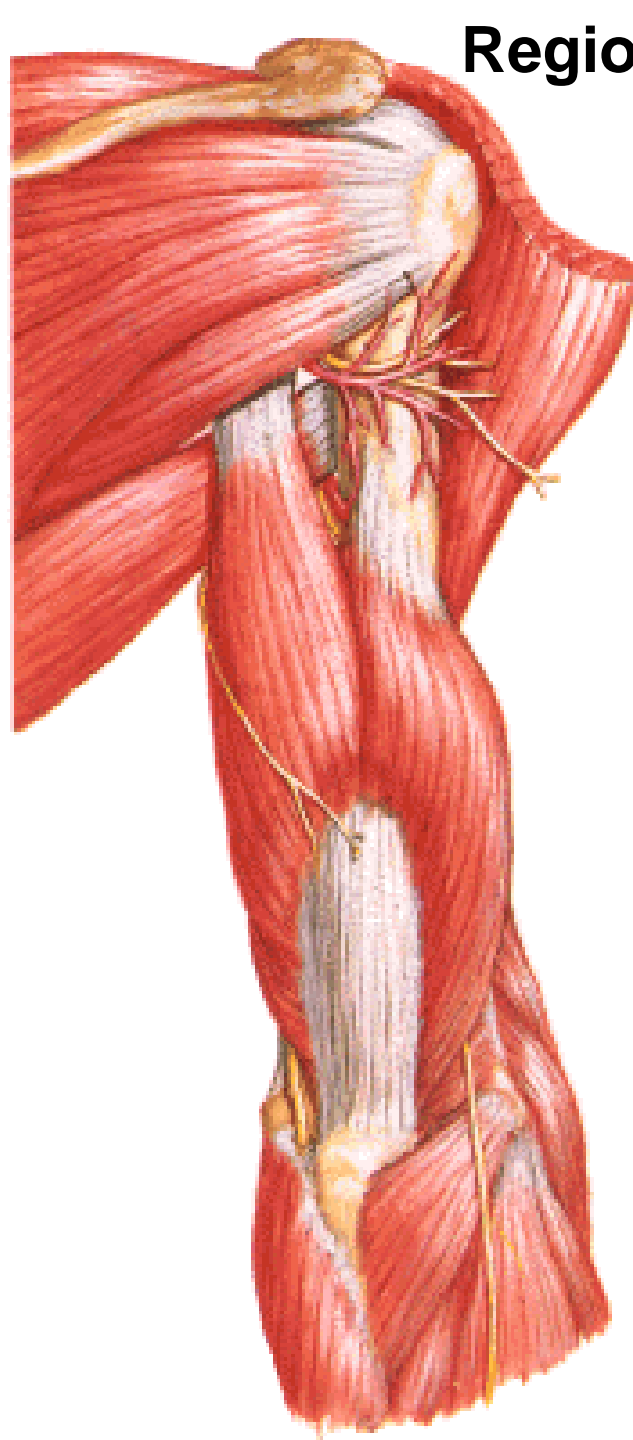
Foramen suprapiriforme et infrapiriforme



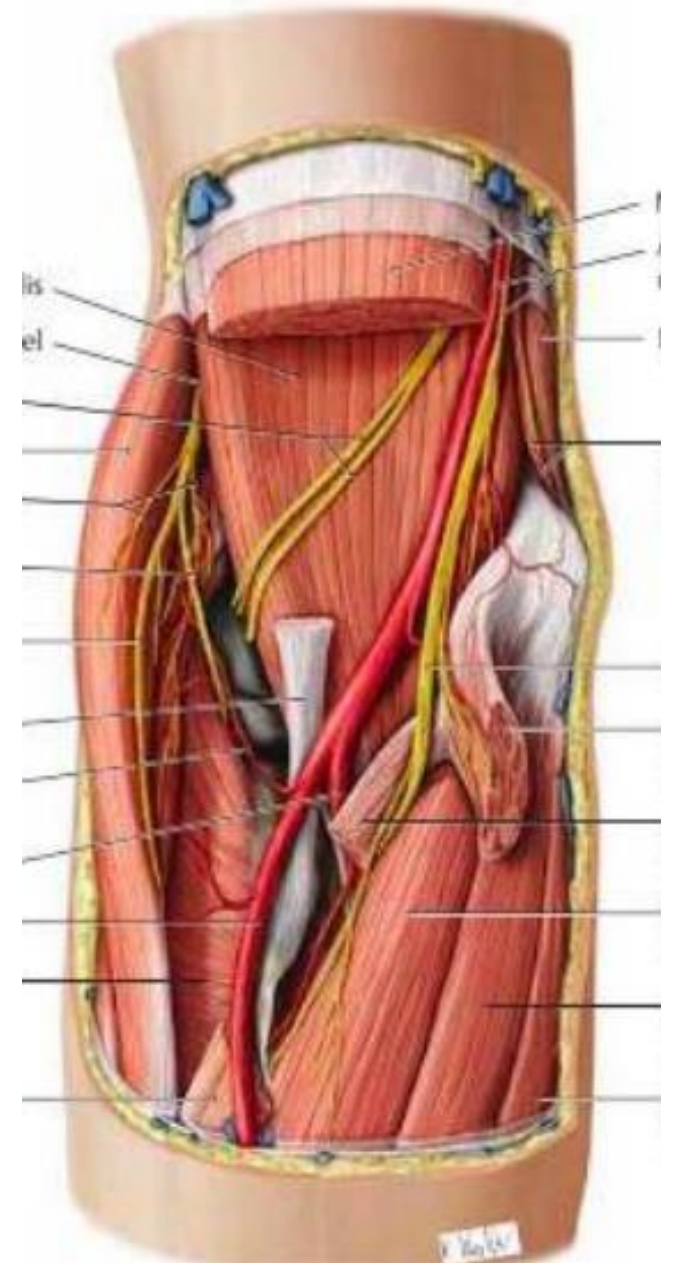
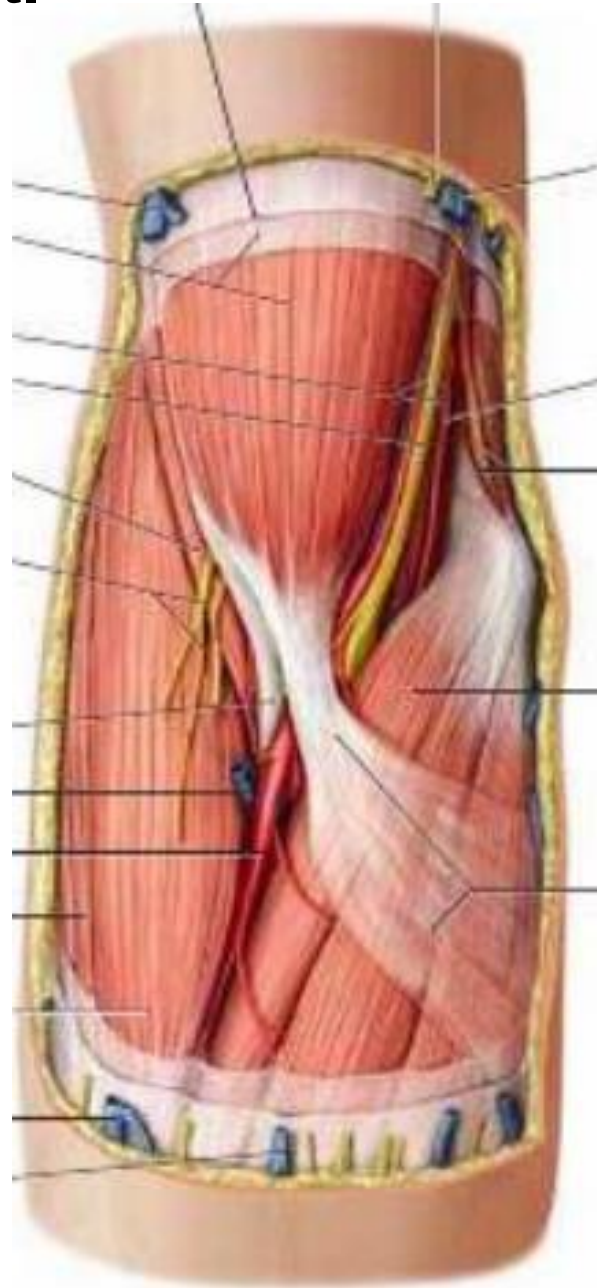
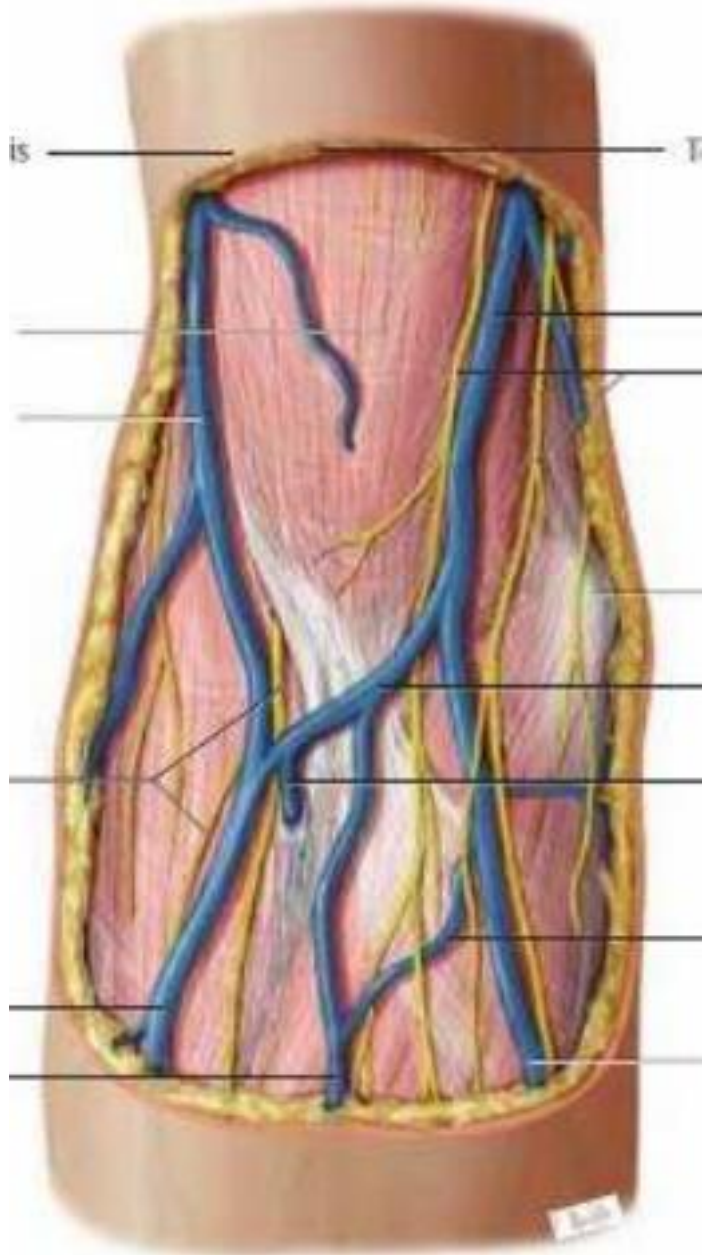
Regio brachii ant.



Regio brachii post.



Regio cubiti ant.

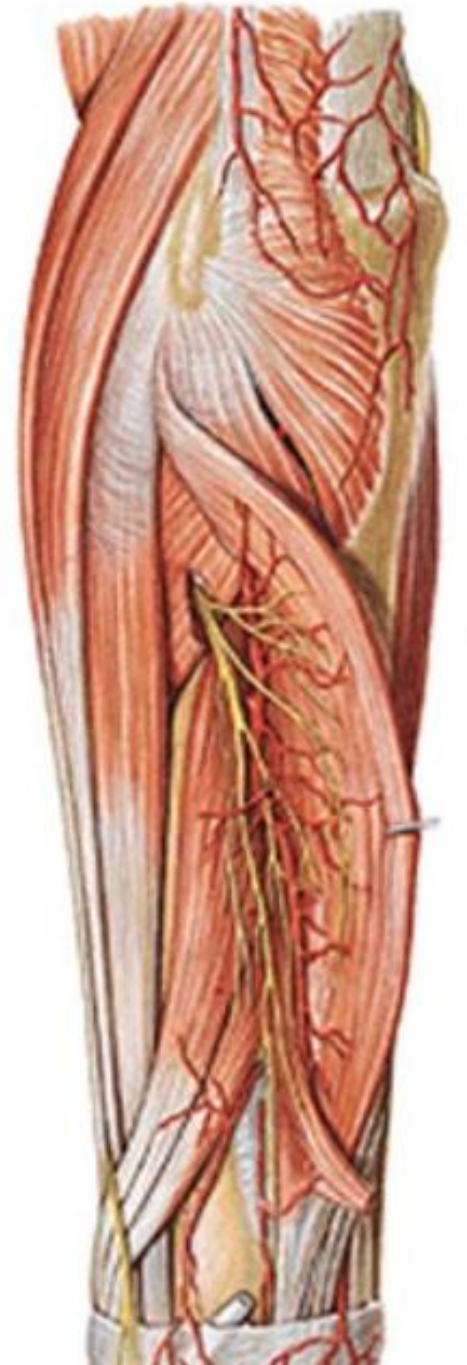


Regio antebrachii ant.

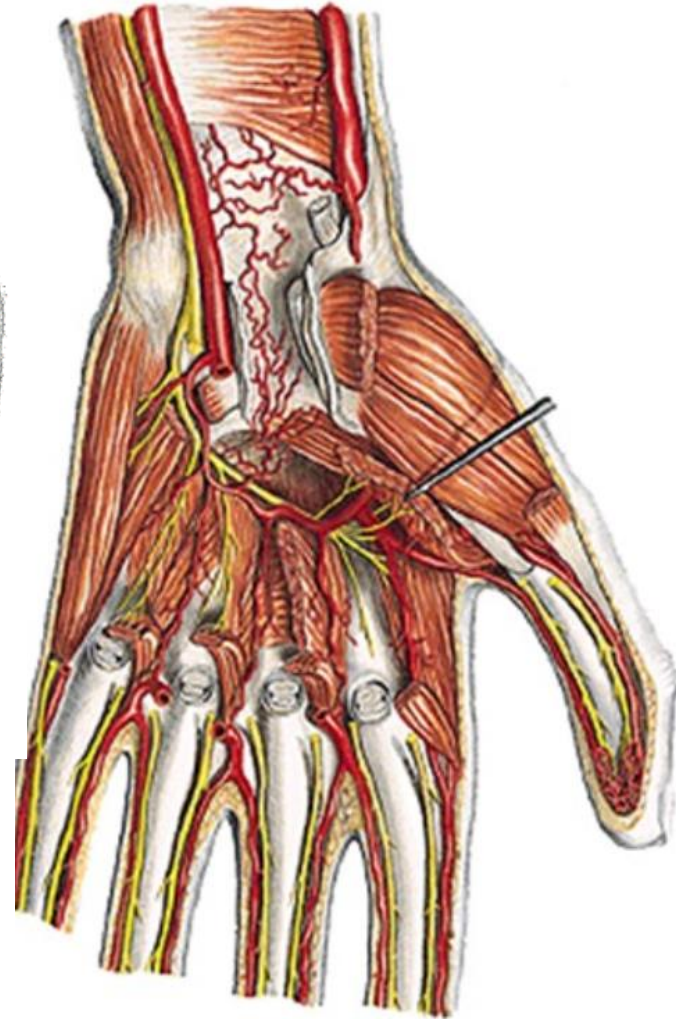
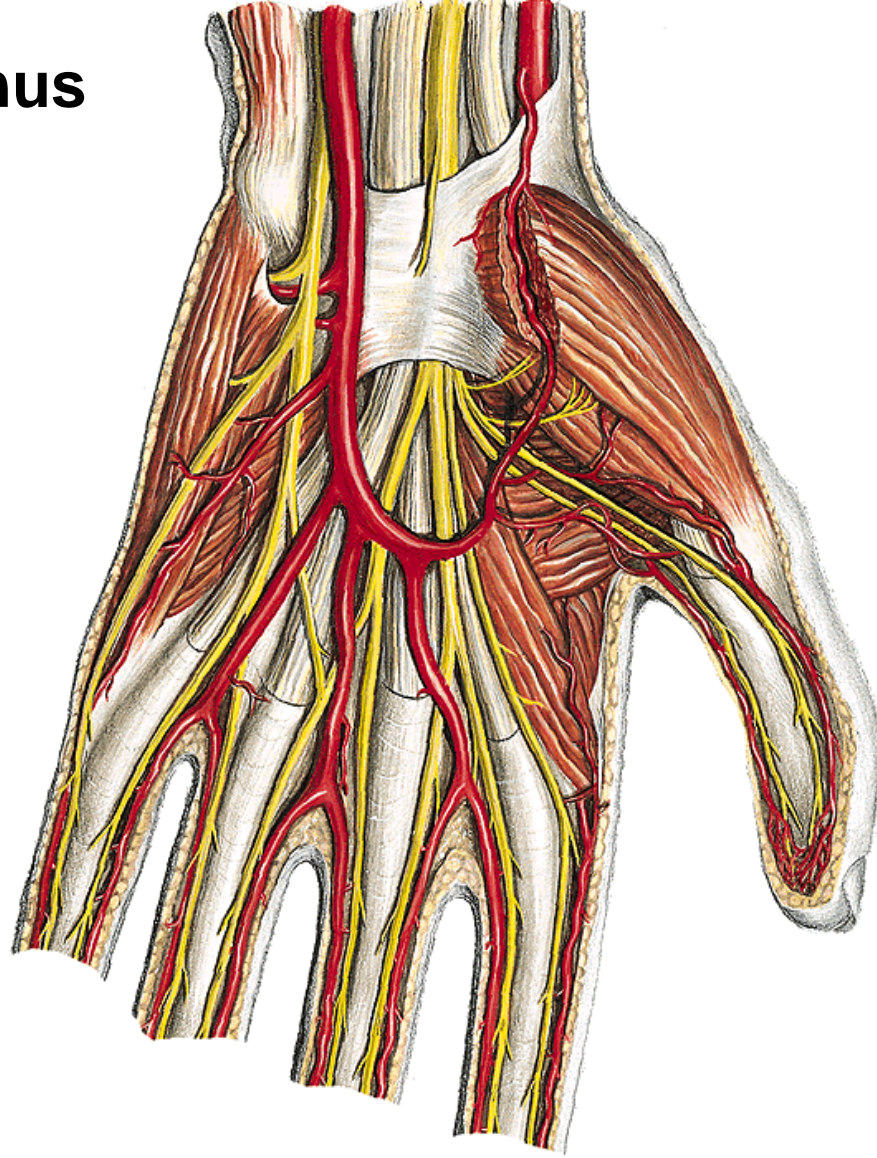
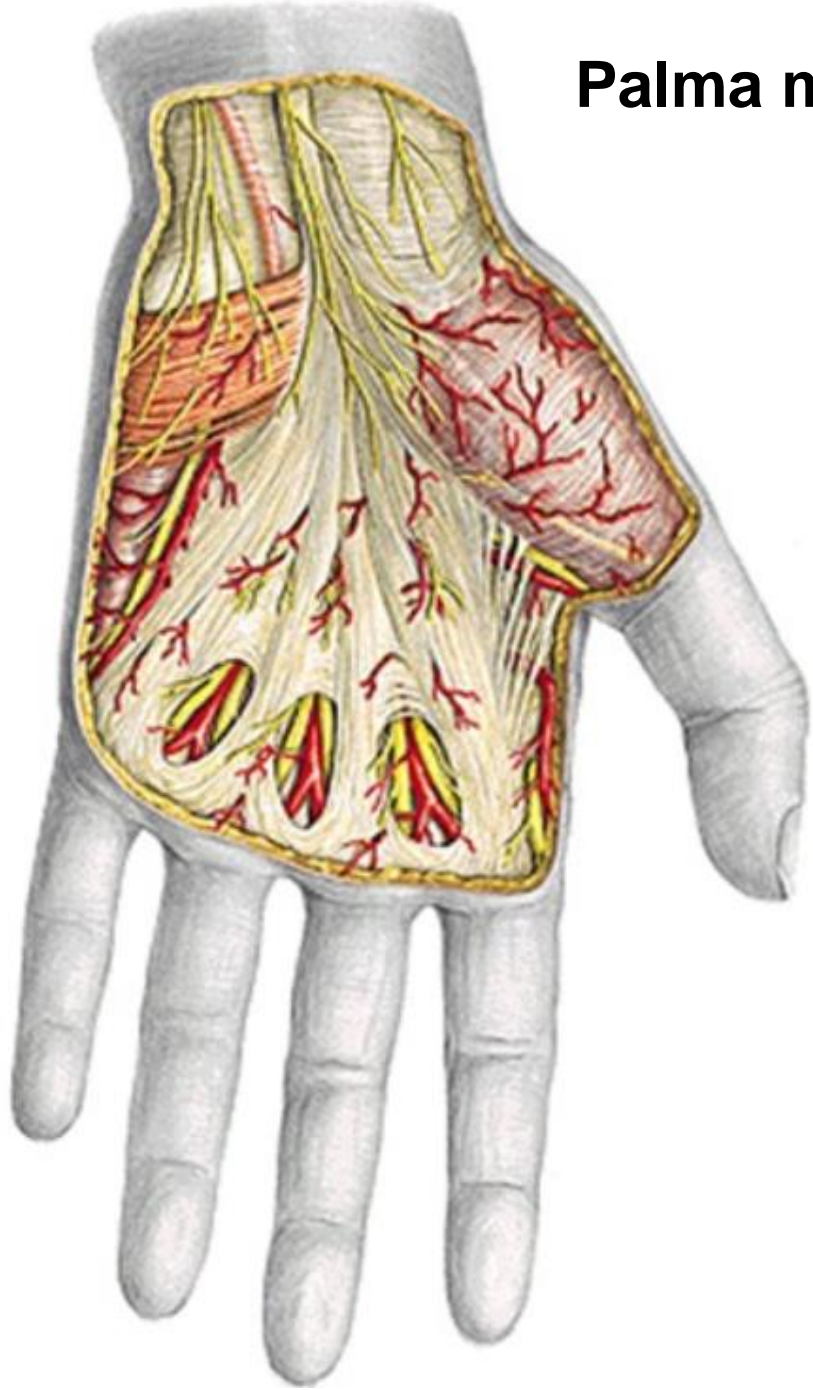


Regio antebrachii post.

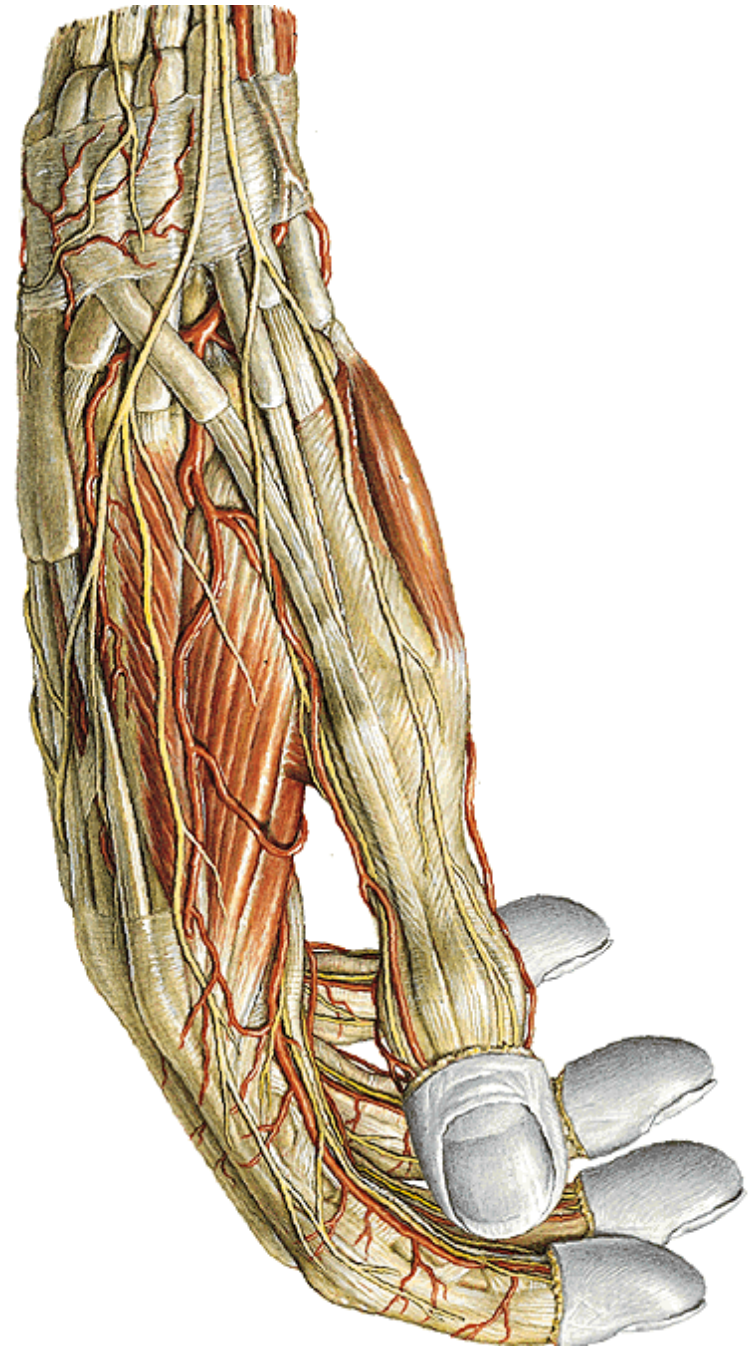
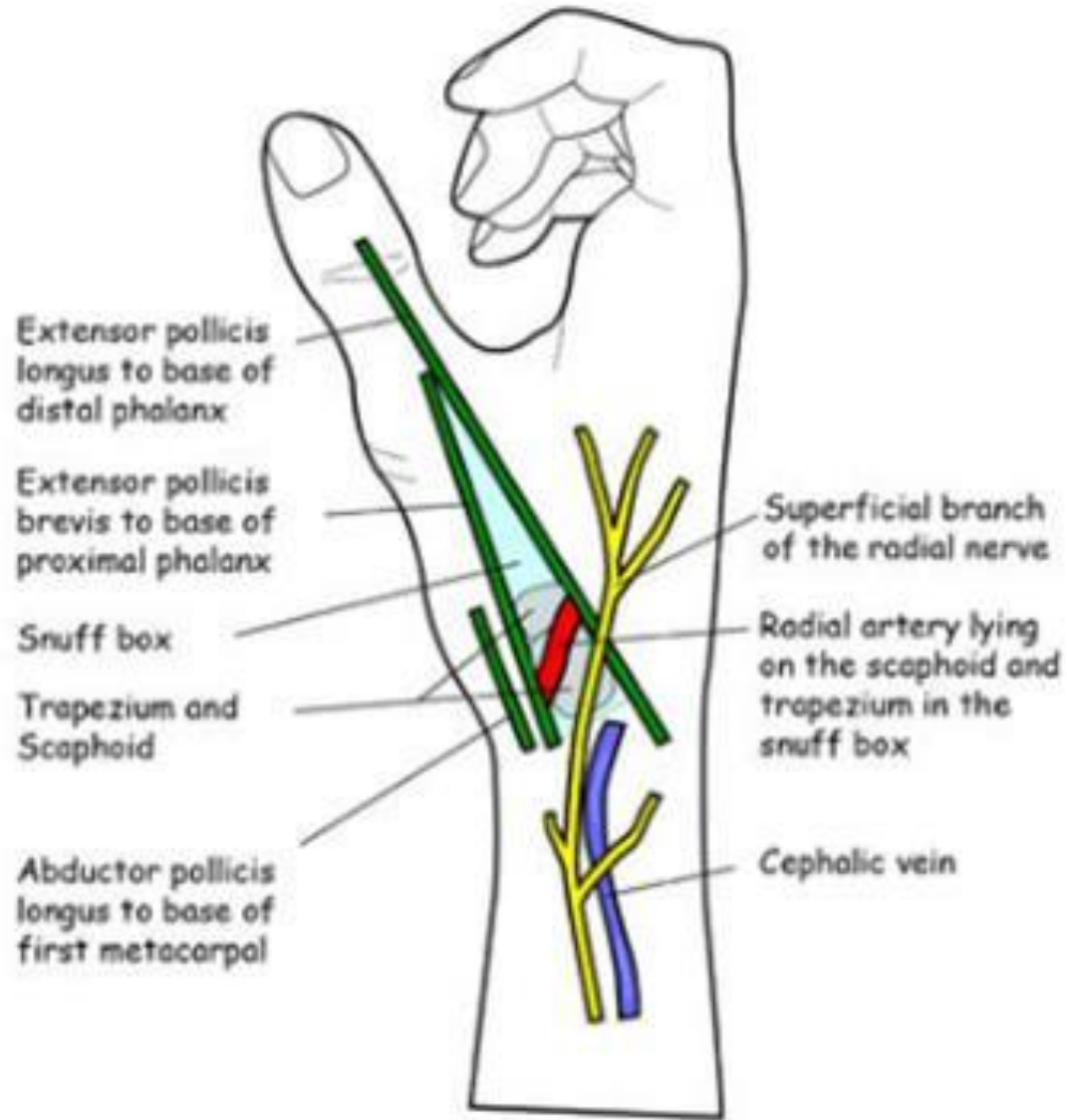
:



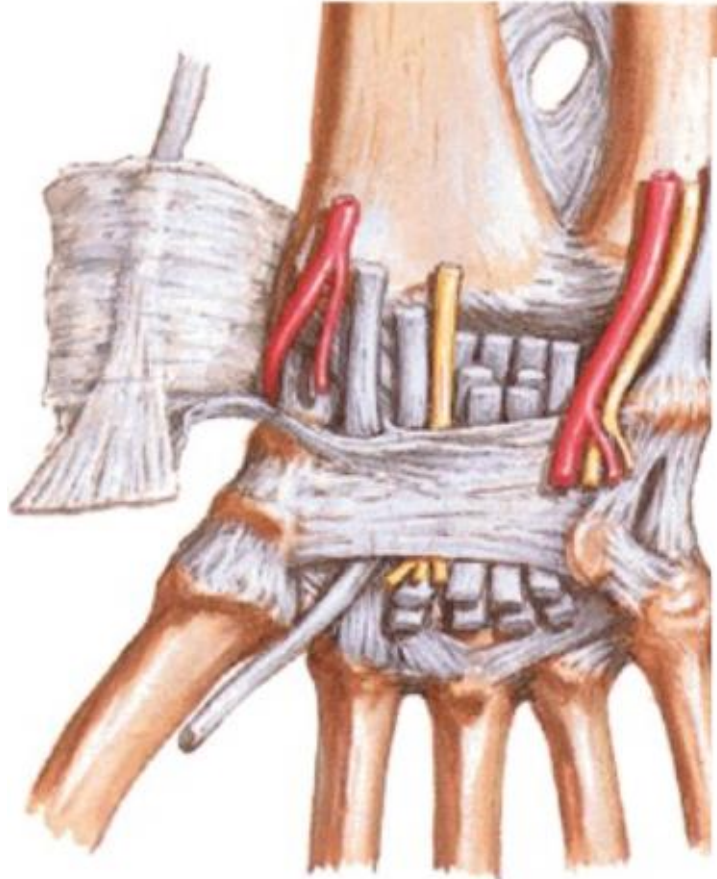
Palma manus



ANATOMICAL SNUFF BOX



Canalis carpi



Dorsum manus

