

Veins of UL

- superficial system
- deep system
 - accompany arteries
 - doubled up to axilla
 - frequent connections around artery
 - frequent valves
- v. subclavia
 - small tributaries only



Superficial veins of UL

- v. axillaris
 - v. cephalica
 - vv. thoracoepigastricae
 - vv. costoaxillares
- v. brachialis (doubled)
 - v. basilica

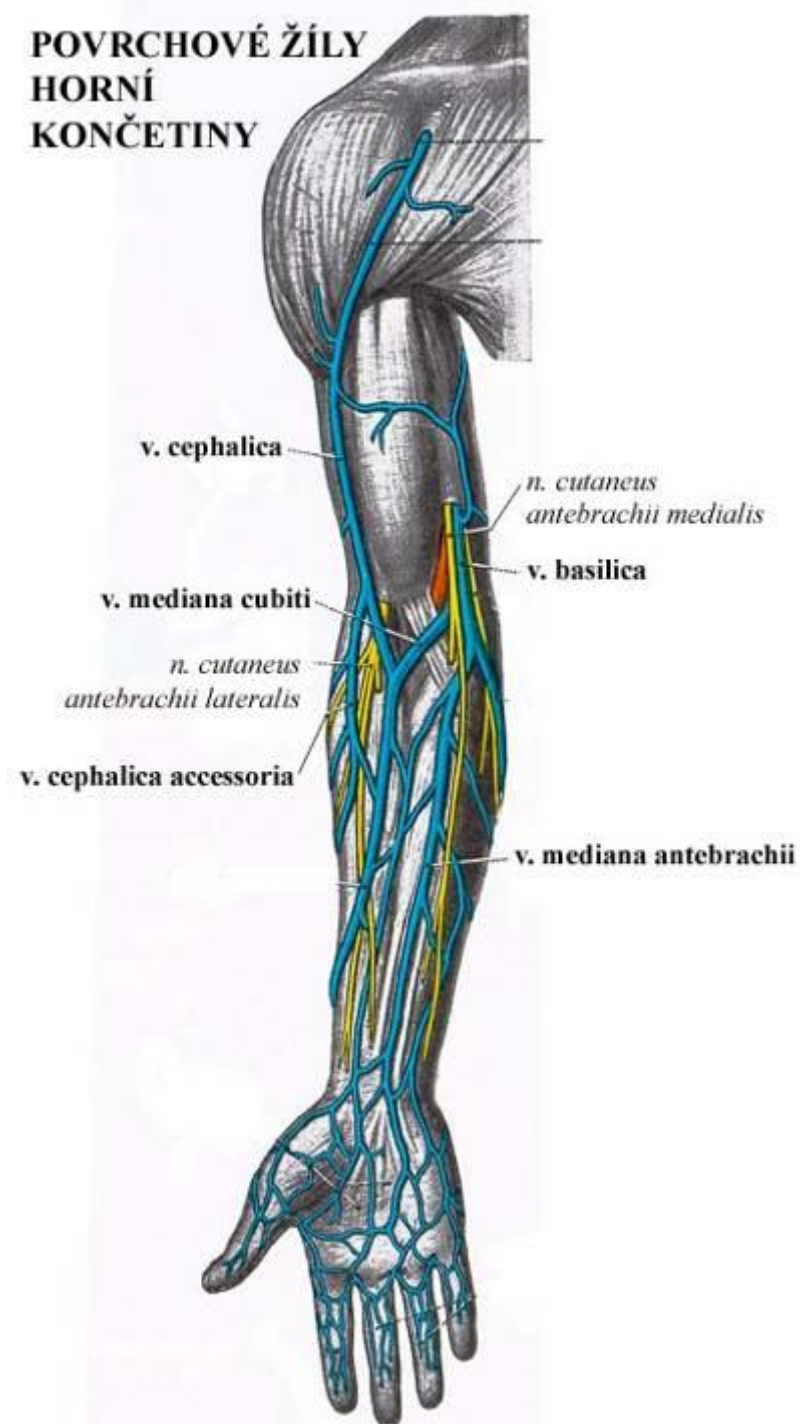
v. mediana cubiti + antebrachii

rete venosum dorsale manus

rete carpi dorsale

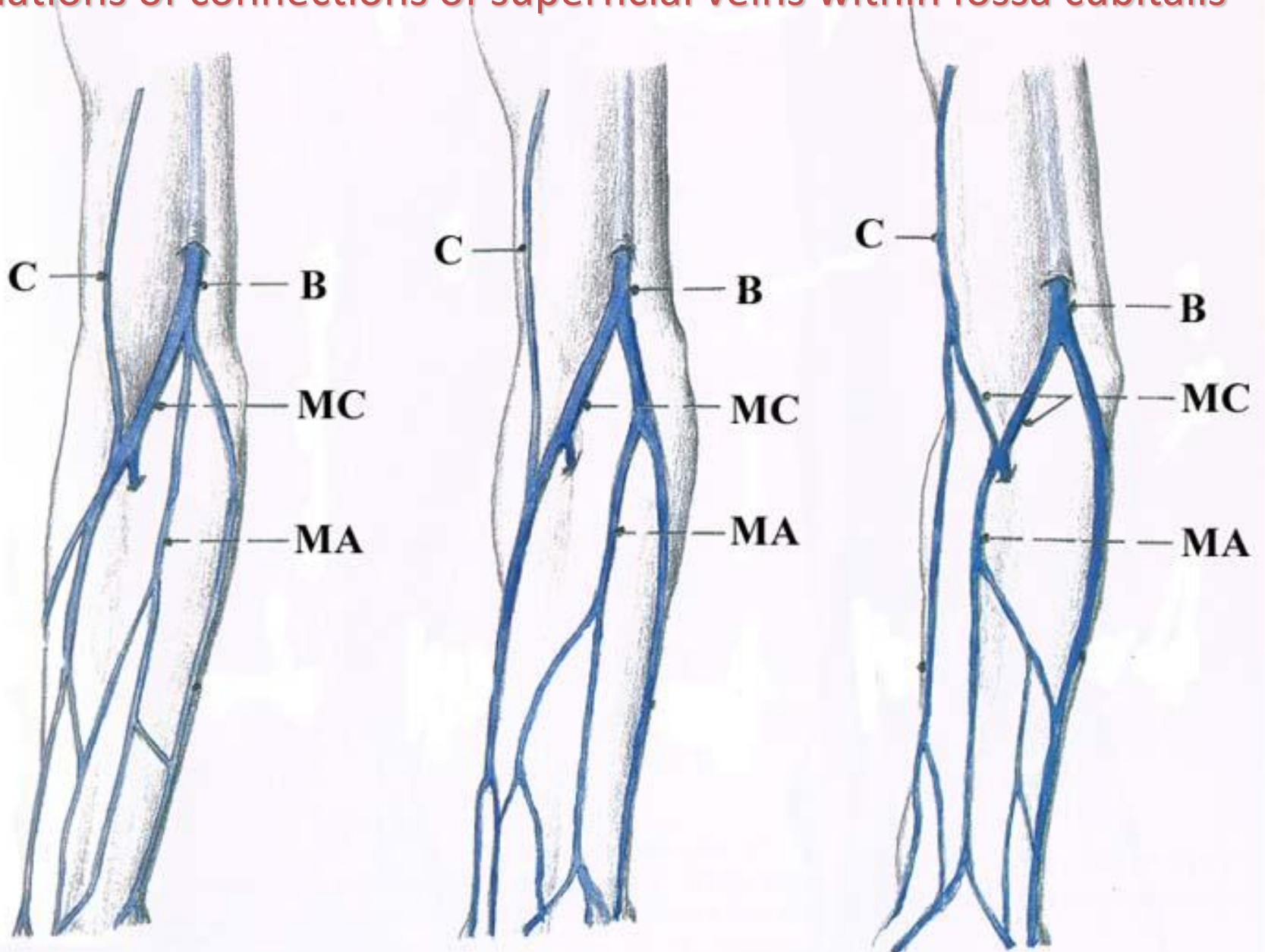
vv. intercapitulares

POVRCHOVÉ ŽÍLY HORNÍ KONČETINY

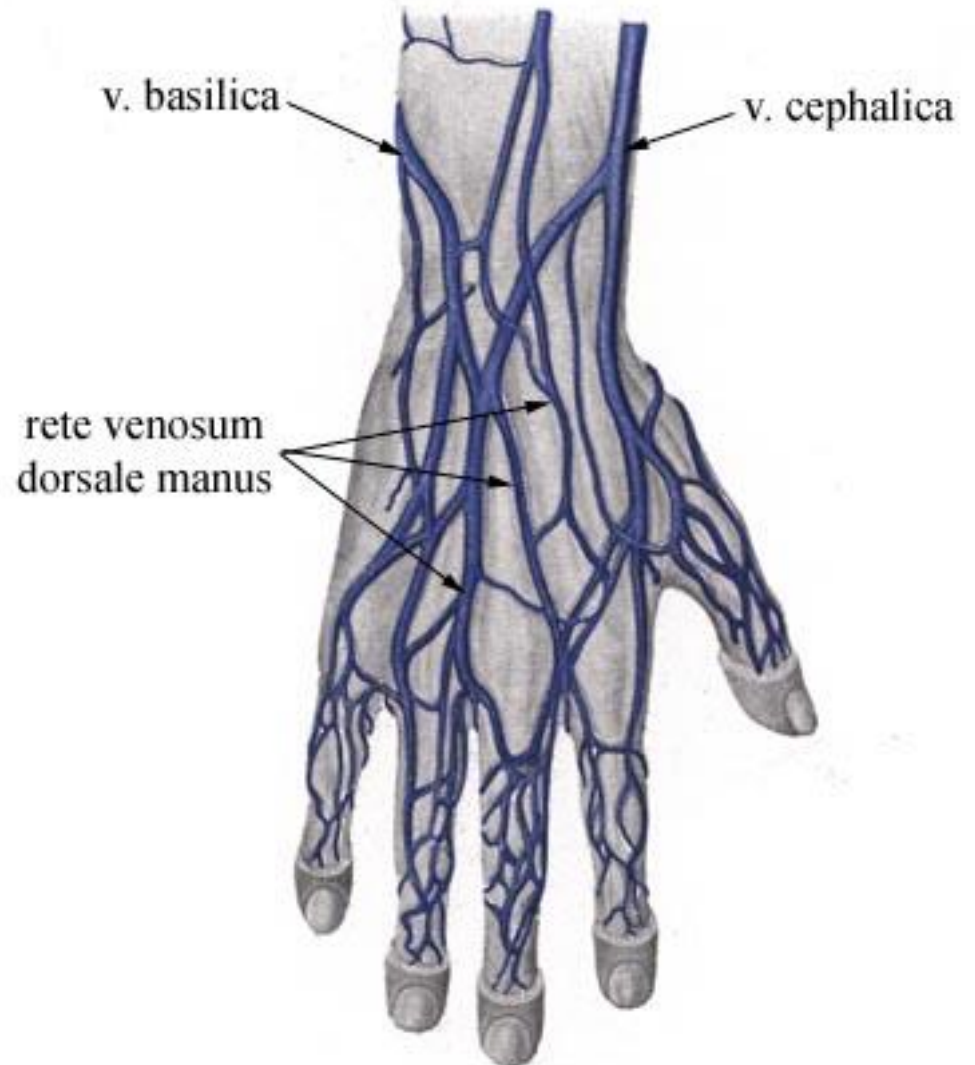
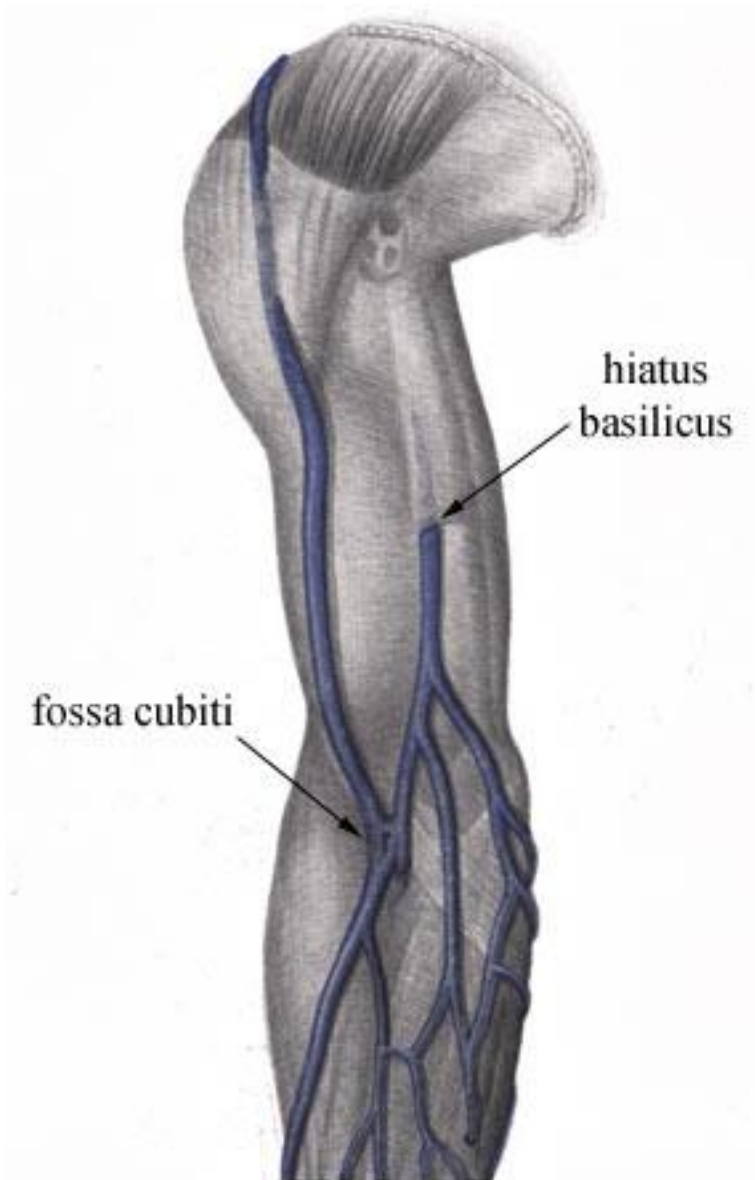


VARIACE NAPOJENÍ POVRCHOVÝCH ŽIL V LOKETNÍ JAMCE

Variations of connections of superficial veins within fossa cubitalis

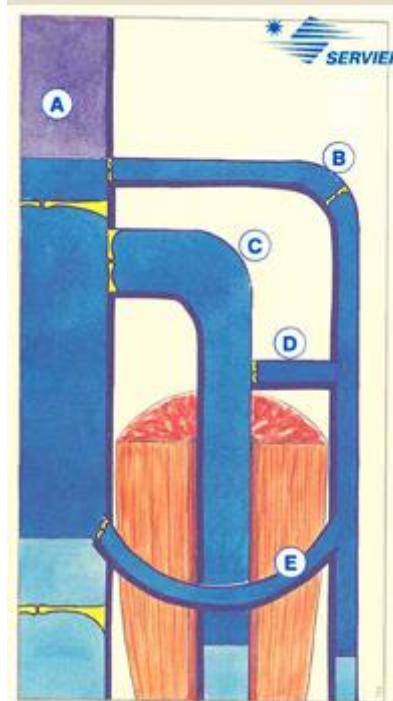
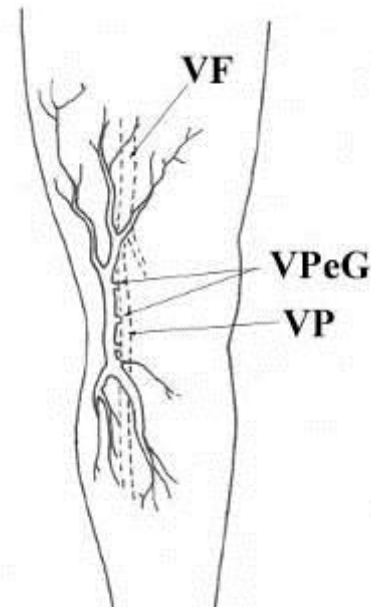


Superficial veins of UL



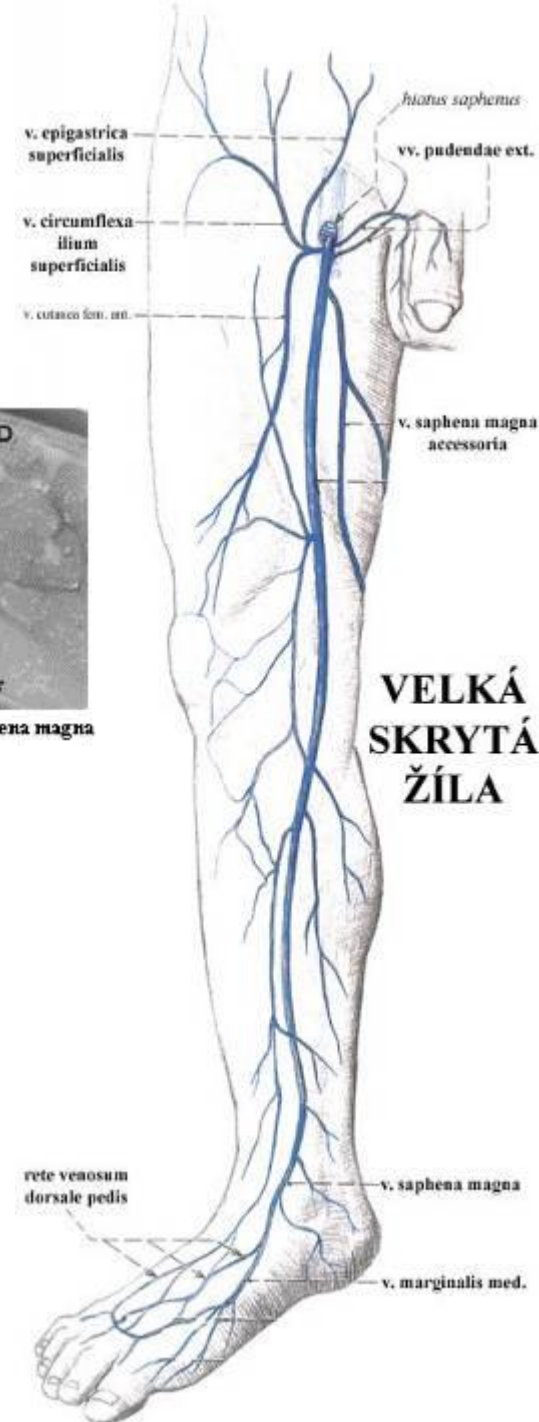
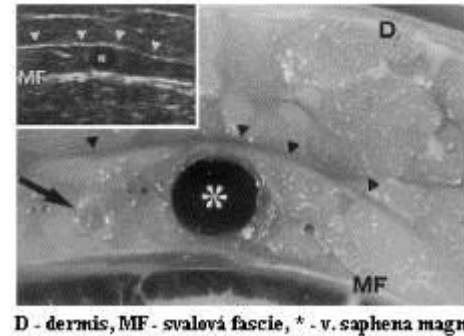
Veins of lower limb

- superficial system
 - compartimentum saphenum
- deep system
 - accompany arteries
 - doubled up to fossa poplitea
 - frequent connections around artery
 - frequent valves
- systema venosum laterale (*Albanesei*)

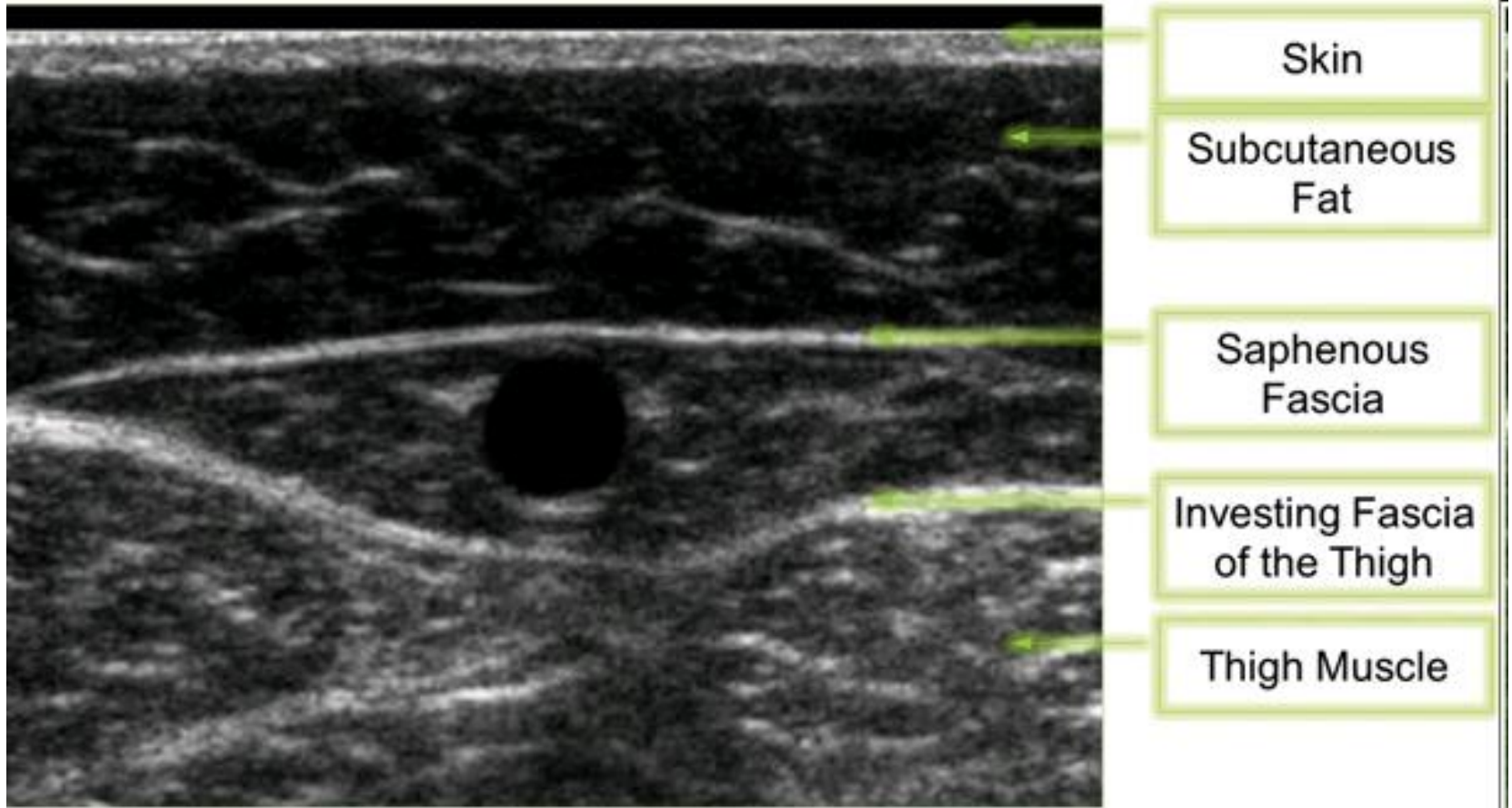


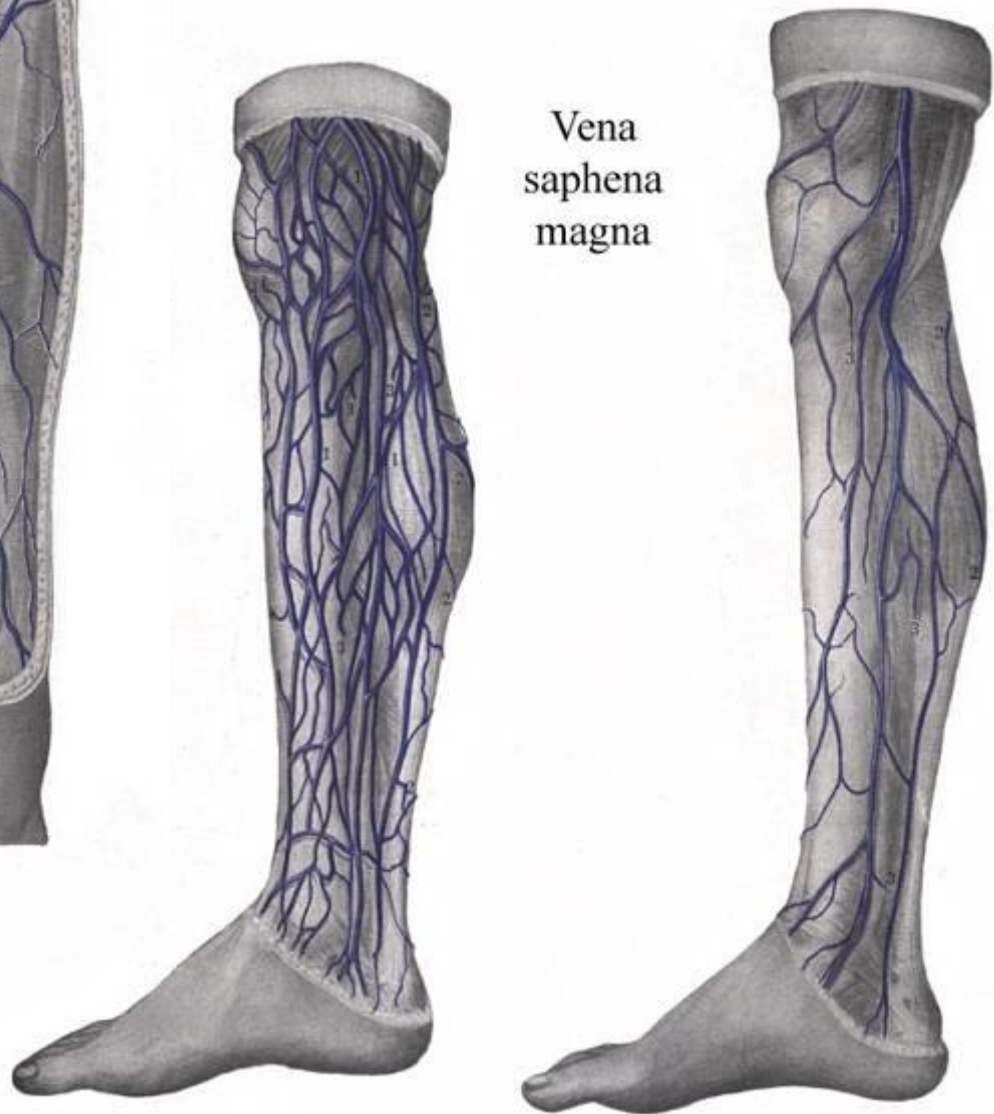
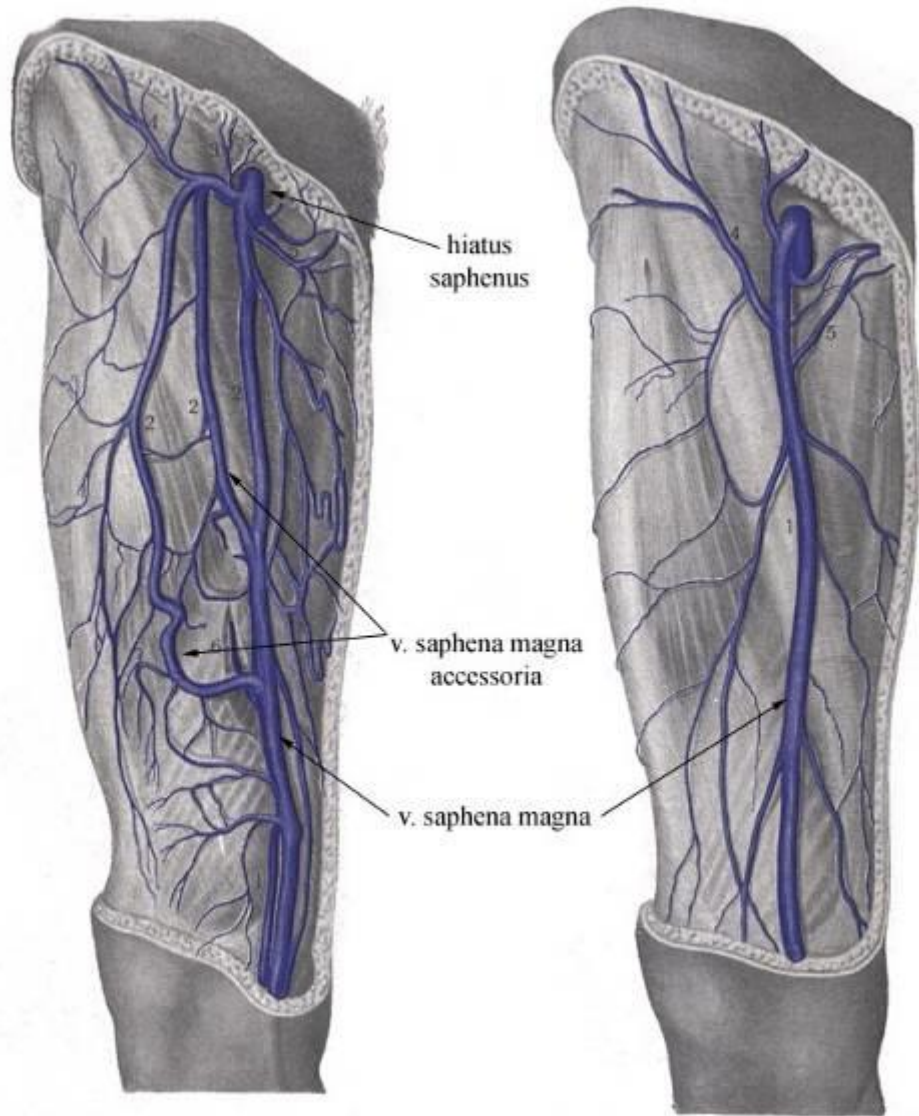
Vena saphena magna

- confluens venosus subinguinalis
- valvula terminalis + preterminalis
- v. s. m. accessoria
 - ant., post., superficialis
- v. circumflexa femoris ant., post.
- runs with n. saphenus
- *ultrasound: „Egyptian / Cleopatra’s eye“*



Ultrasound image of vena saphena magna





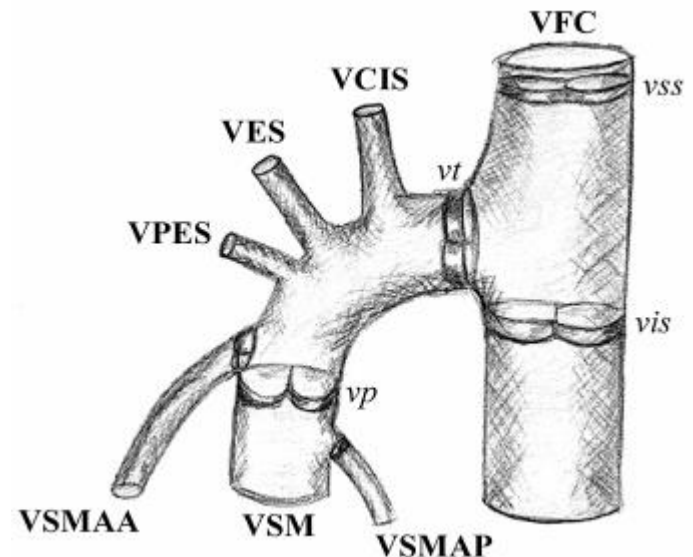
Confluens venosus subinguinalis

clinical term „Crosse“

= terminal portion of VSM bordered with valves

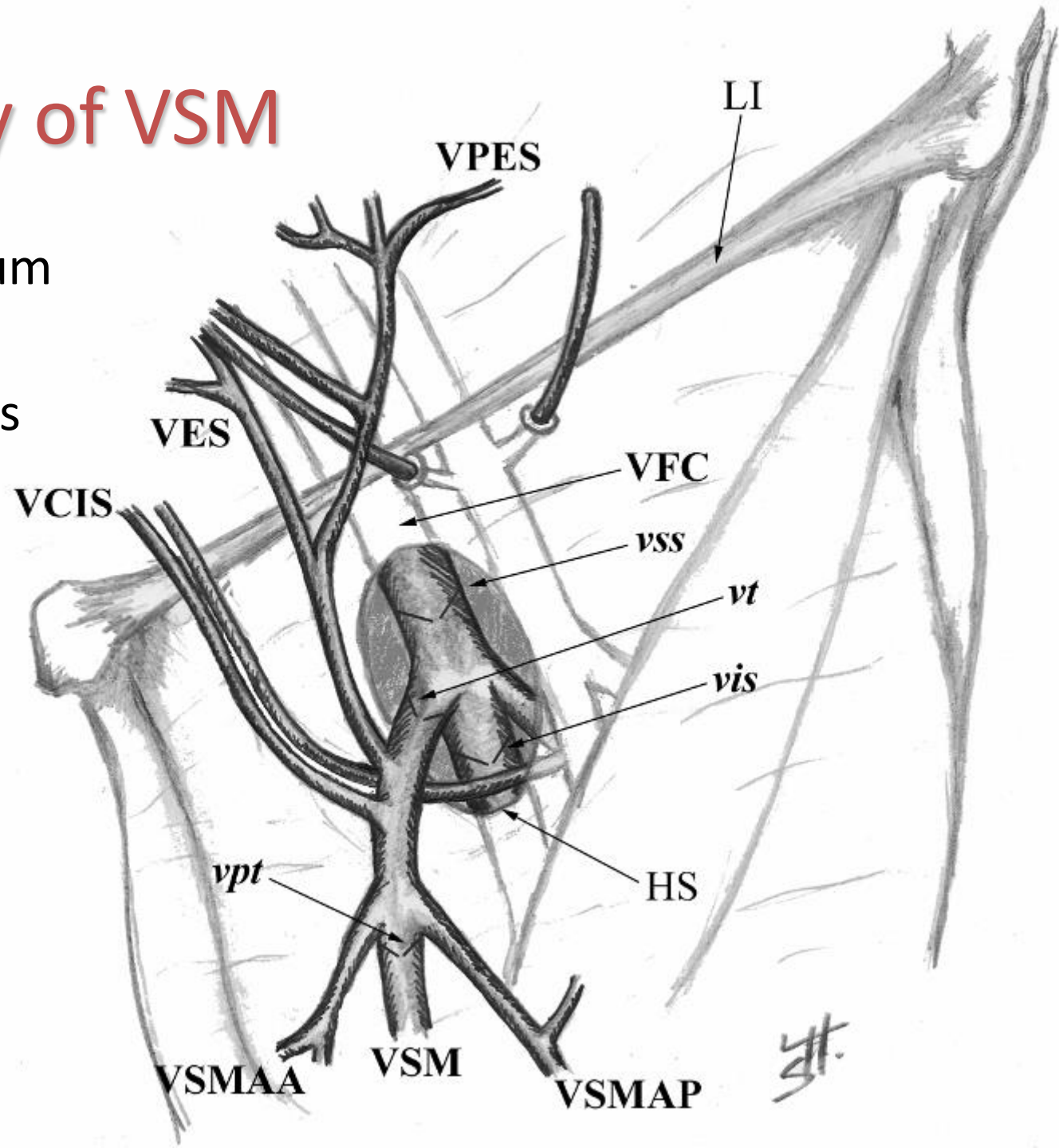
- v. epigastrica superficialis
- v. circumflexa ilium superficialis
- v. pudenda externa superficialis
- v. saphena magna accessoria anterior et posterior

- *crosectomy*



Topography of VSM

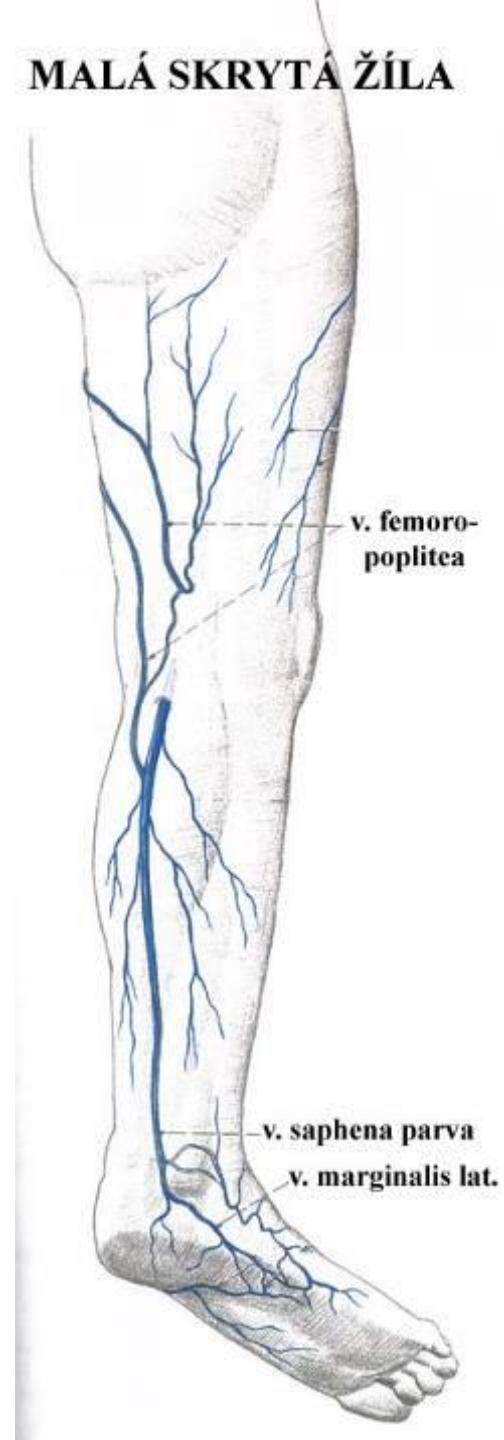
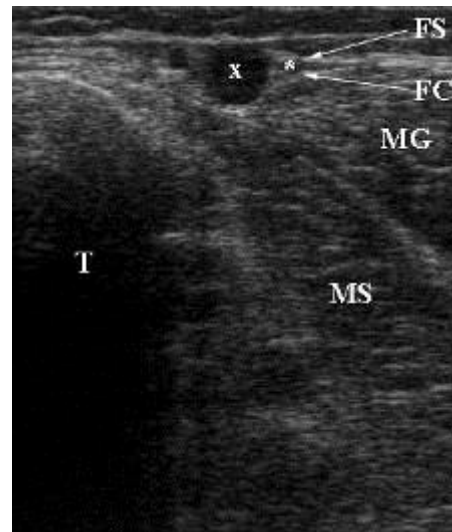
- compartmentum saphenum
- hiatus saphenus
- trigonum femorale



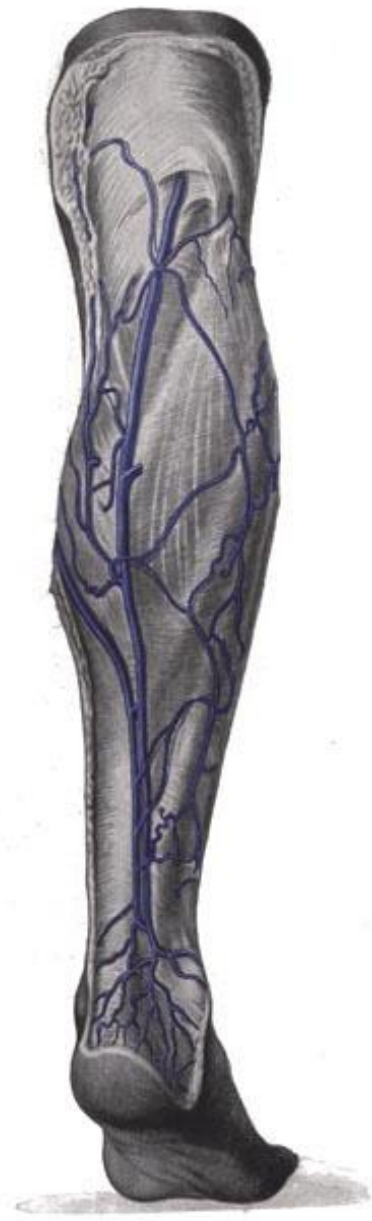
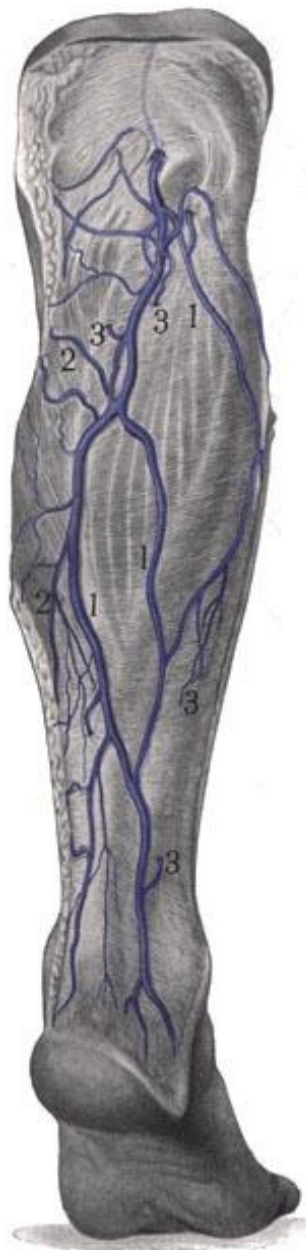
Vena saphena parva

- valvula terminalis + preterminalis
- v.s.p. accessoria superficialis
- extensio cranialis venae saphenae parvae (obsolete „v. femoropoplitea)
- runs with n. suralis

venae intersaphenae



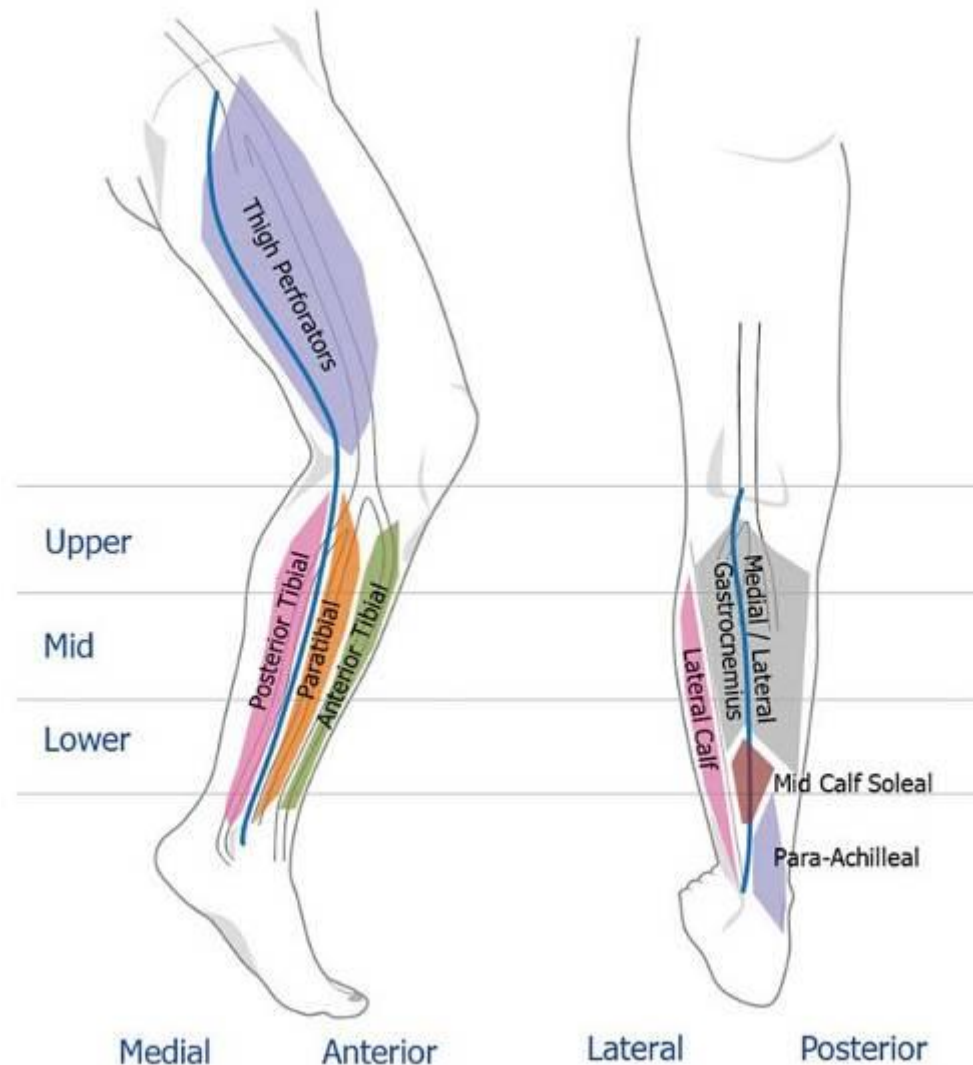
vena saphena parva

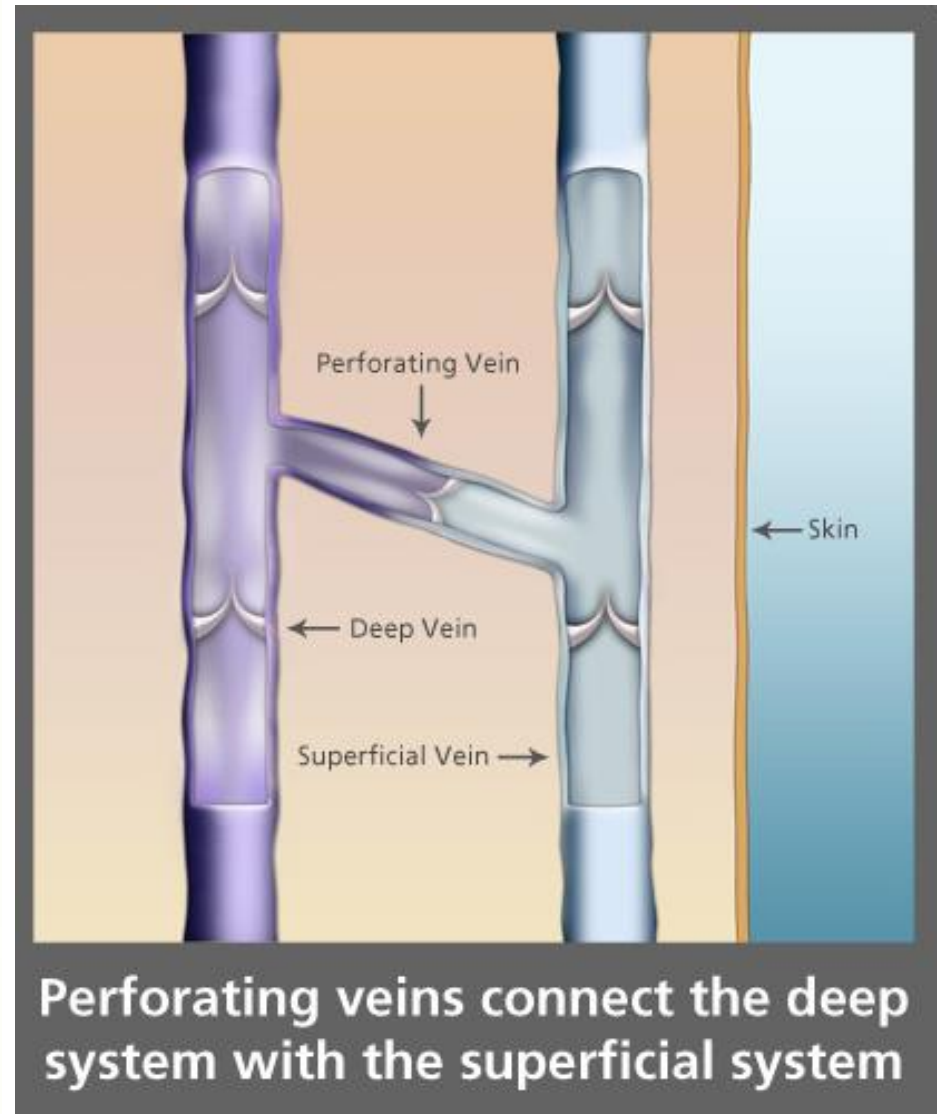
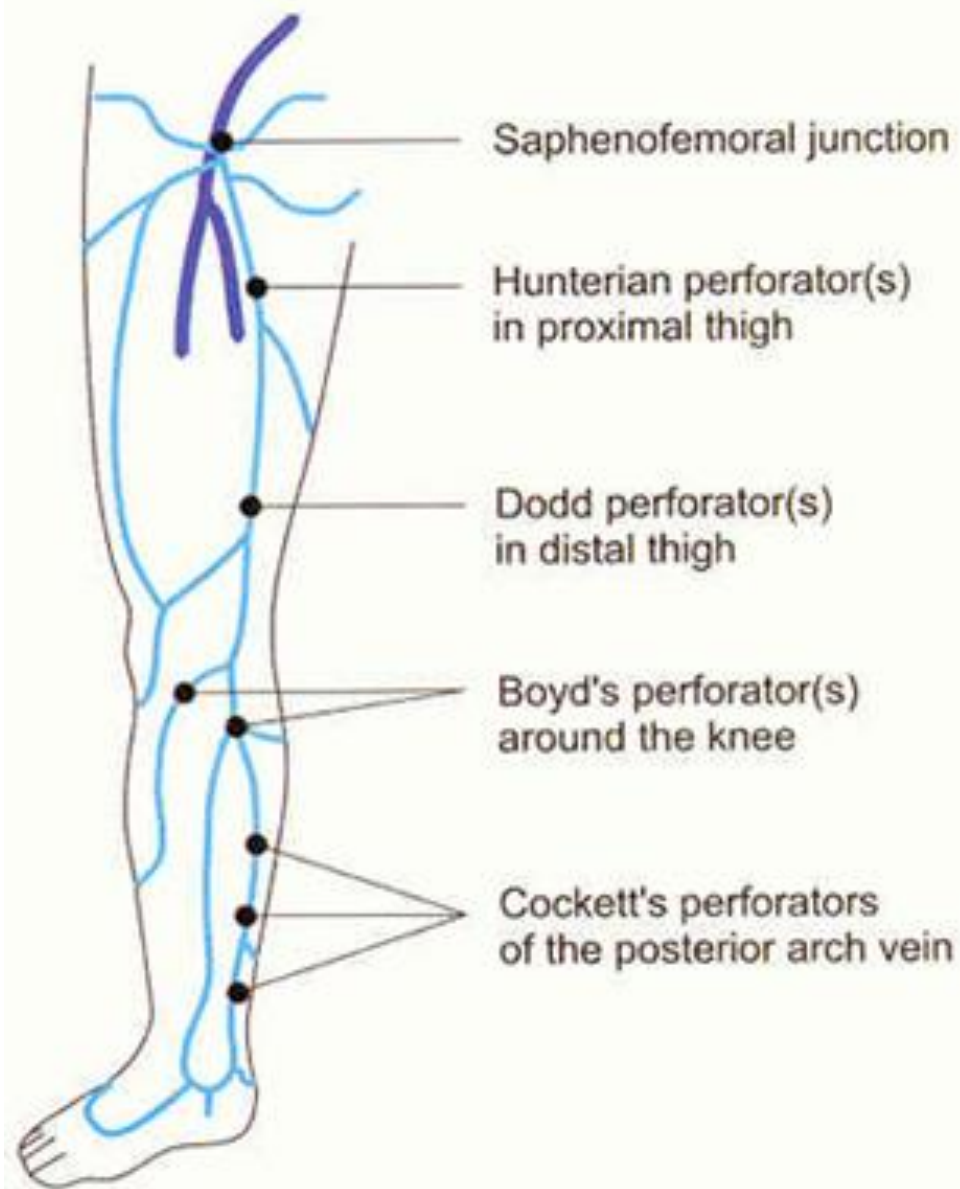


Venae perforantes

Transfascial connections = Perforators

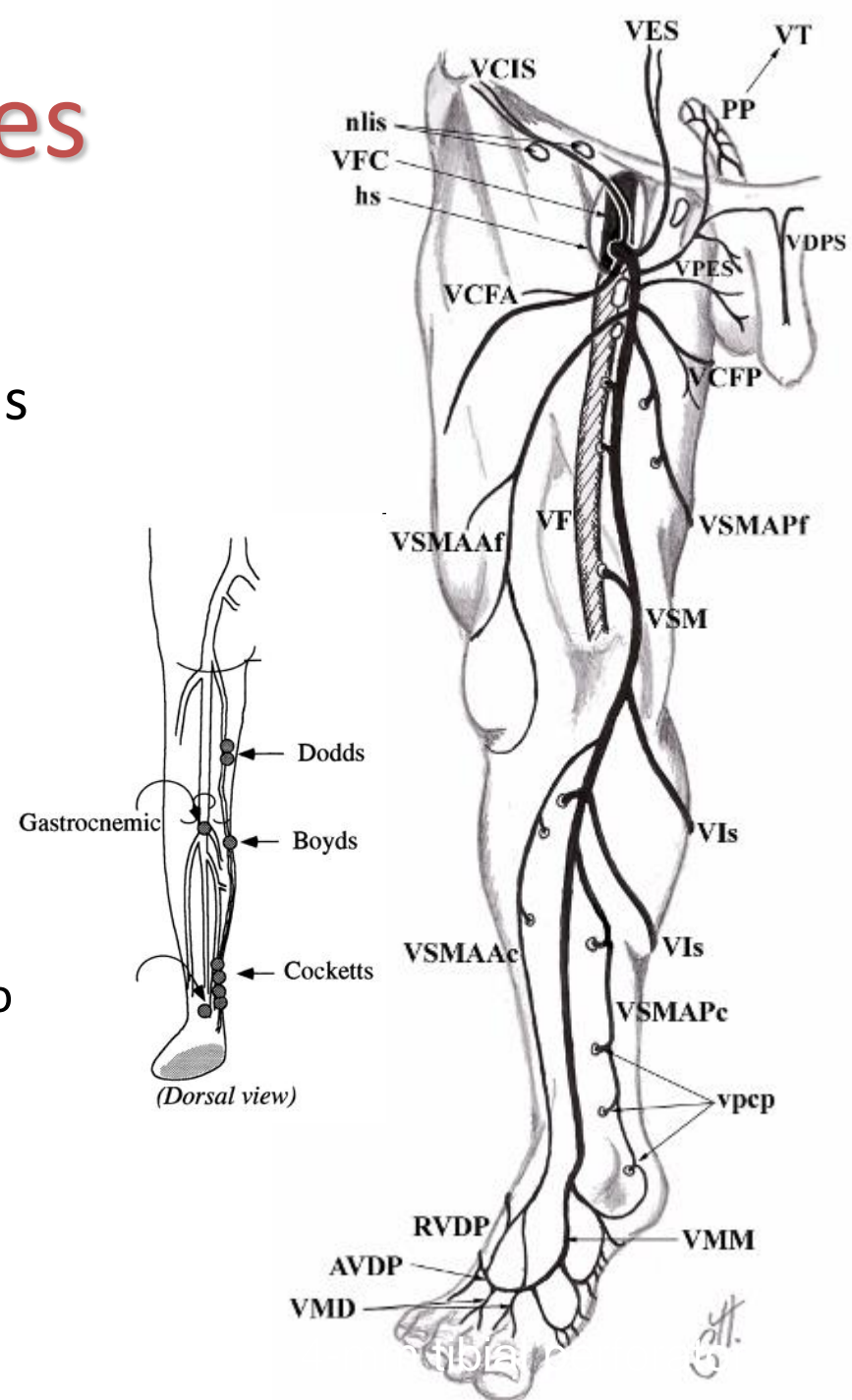
- first drawn by Leonardo da Vinci
- interconnect deep (80% of blood) and superficial systems
- contain valves
- insufficient valves → varices
- 6 groups according to position



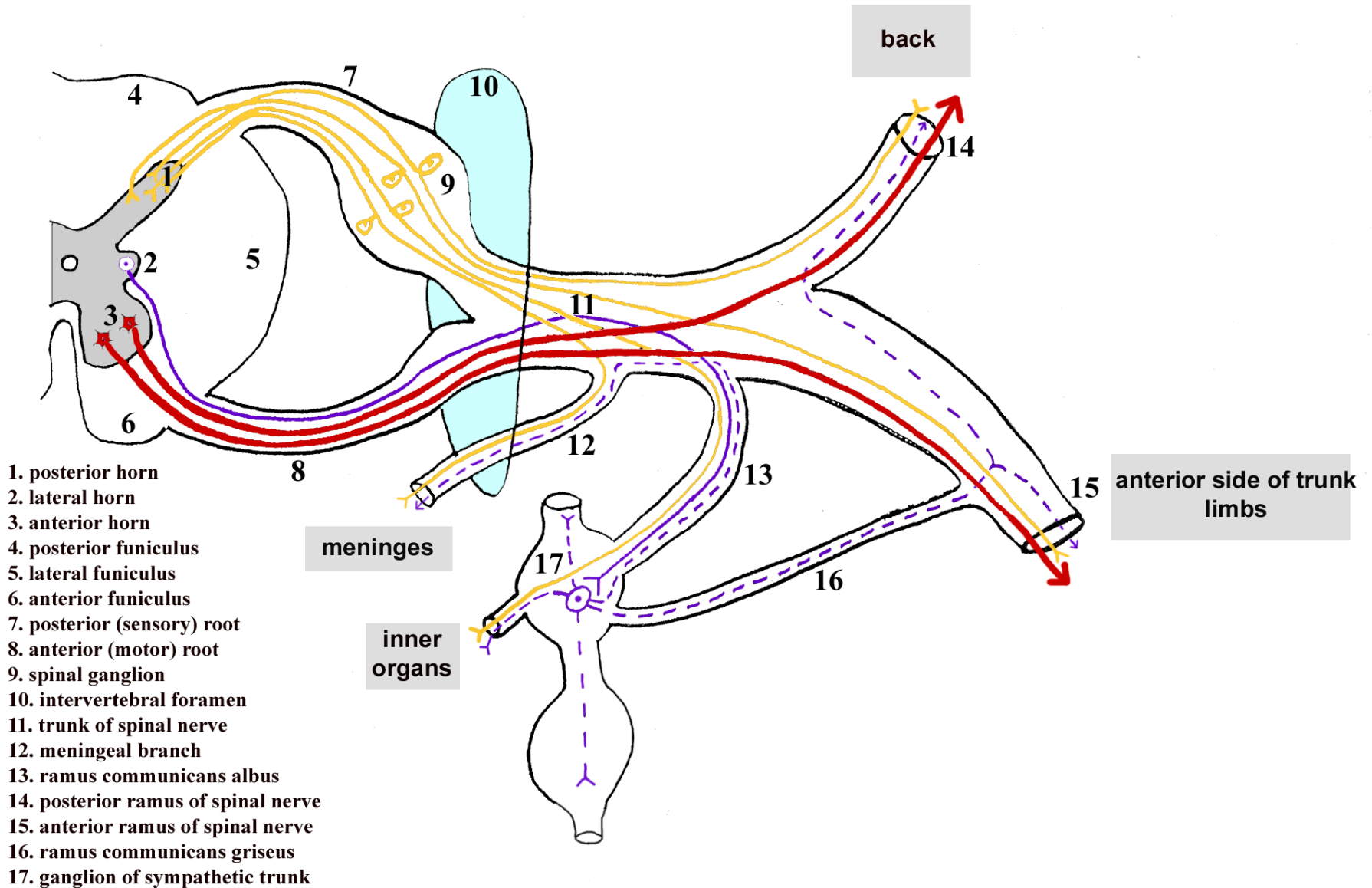


Venae perforantes

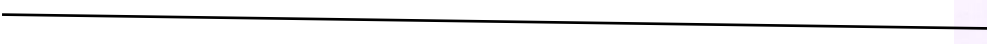
- simple, double or multiple
- run with small artery and cutaneous nerve (Staubesand's triad)
- 6 groups: foot, ankle, leg, knee, thigh, buttocks
- eponyms: Cockett, Boyd, Dodd
- e.g.: *venae perforantes cruris posteriores tibiales* = *Cockett's perforators*
 - interconnect v.s.m. accessoria posteriorio and venae tibiales posteriores
 - 18.5, 13.5 a 7 cm proximal to sole

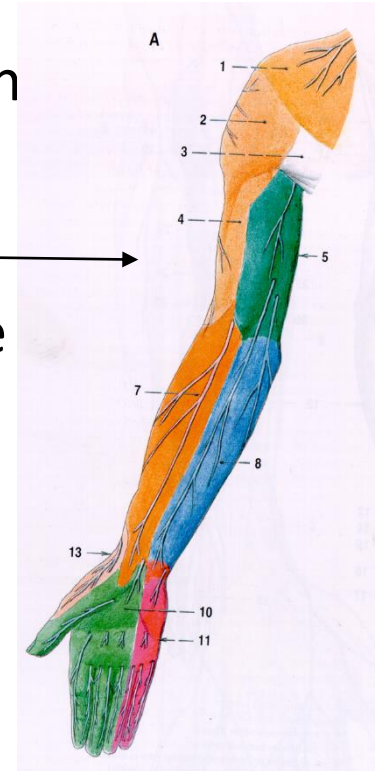


SCHEME OF SPINAL NERVE BRANCHING



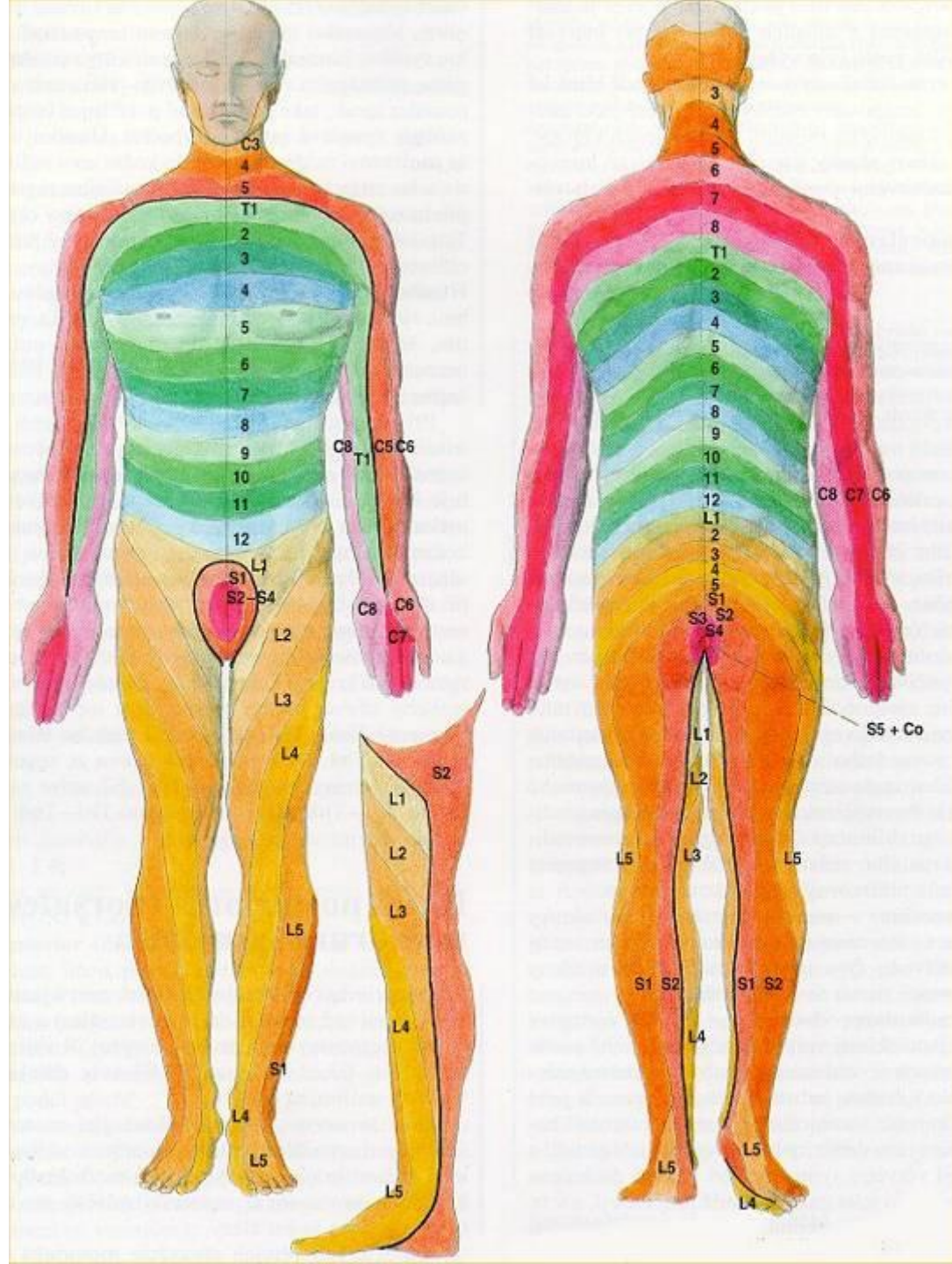
Sensory skin innervation

- area radicularis (dermatome)
 - skin area supplied by 1 radix spinalis (from 1 spin segment)
- area nervina 
 - skin area supplied by 1 peripheral sensory nerve (usually from more spinal segments)
- area radicularis visceralis
 - Internal organ area supplied by viscerosensory nerves of 1 spinal segment
- *Head's zone*
 - segmental projection of sensitivity from organs to the certain skin areas

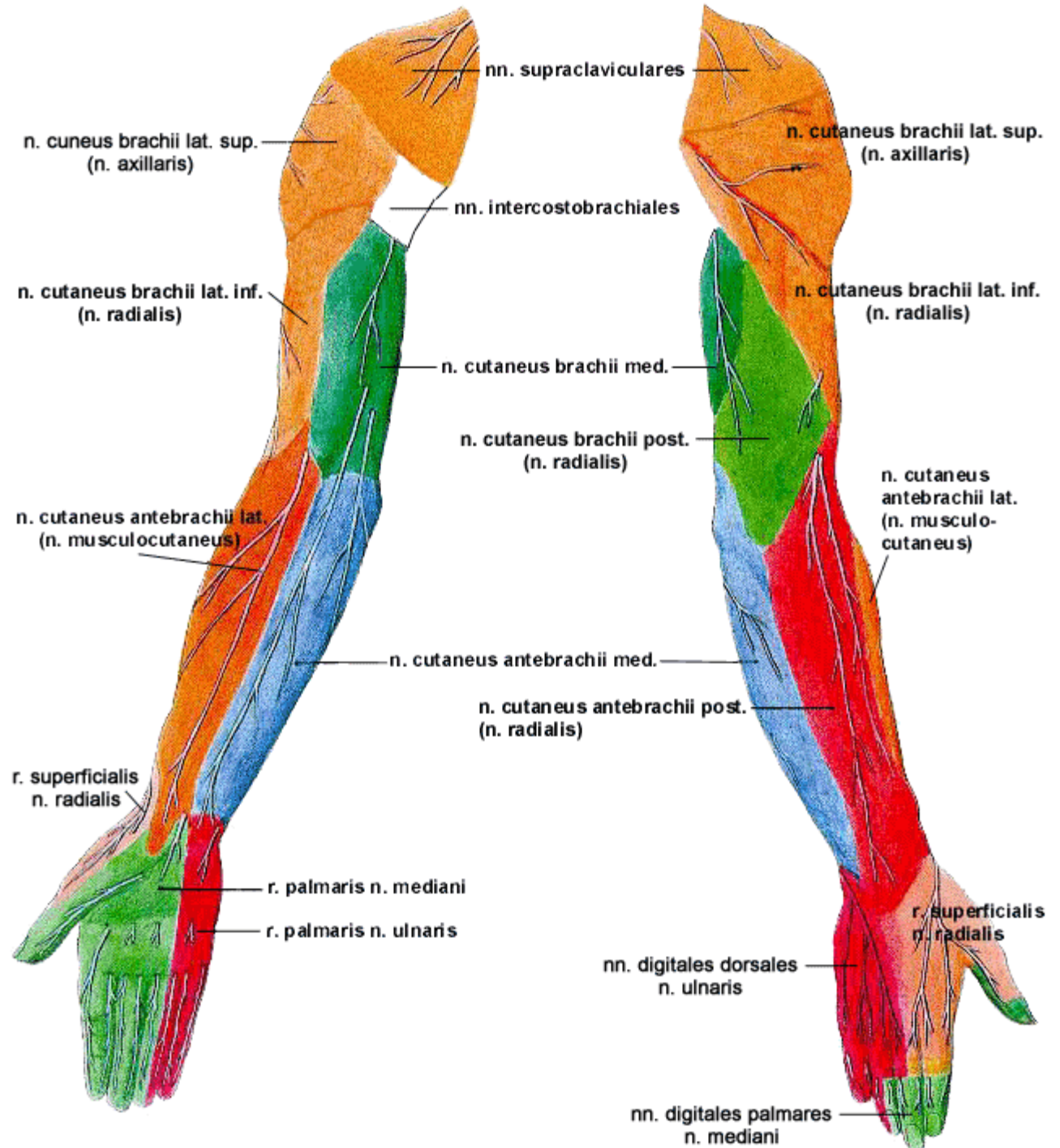


Dermatome

skin area supplied
by one spinal
nerve (from one
spinal segment)



Sensory innervation of upper limb



Sensory innervation of lower limb

