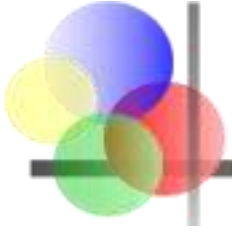


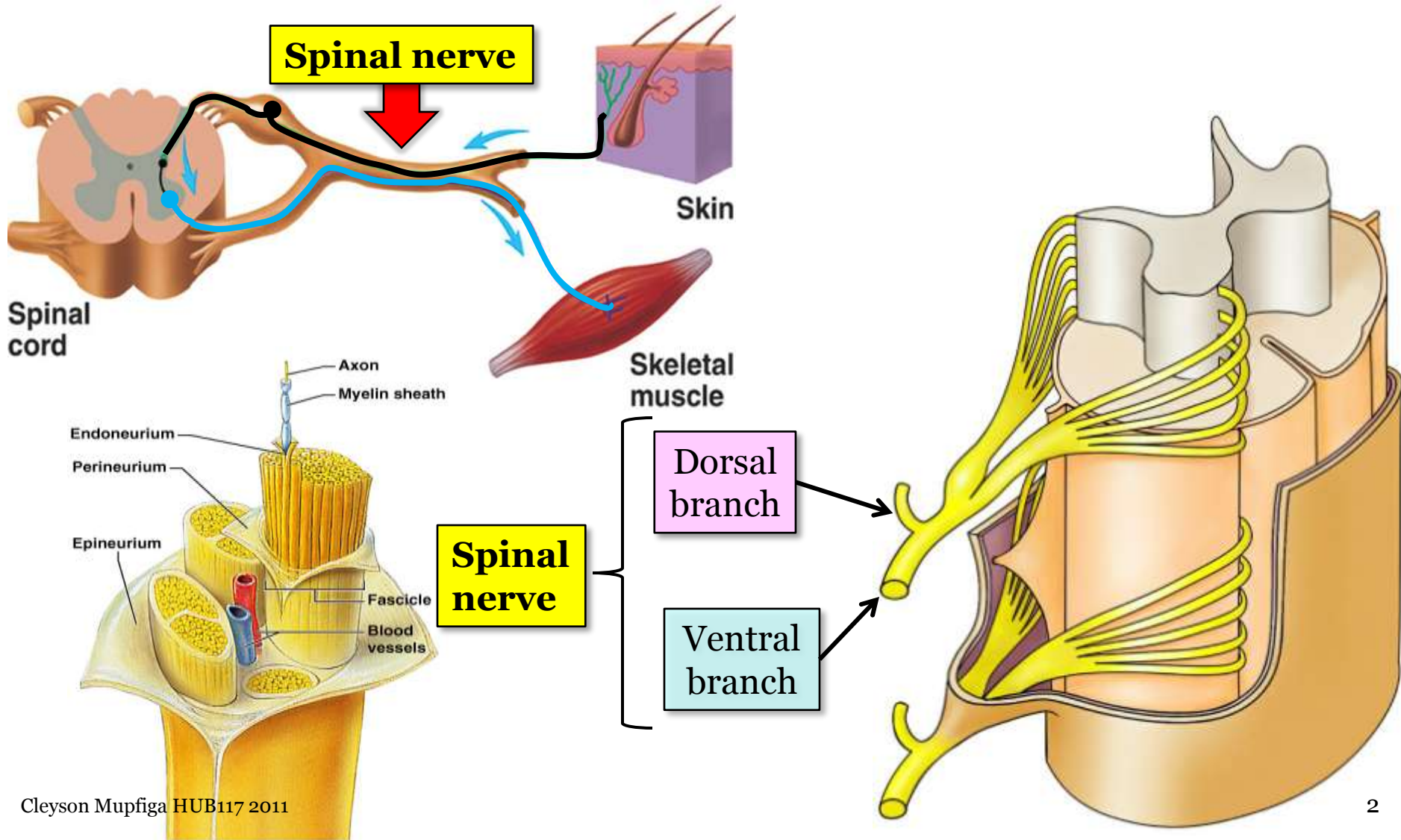
# Lecture 26

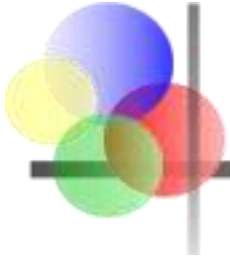
## The Brachial Plexus

Cleyson Mupfiga



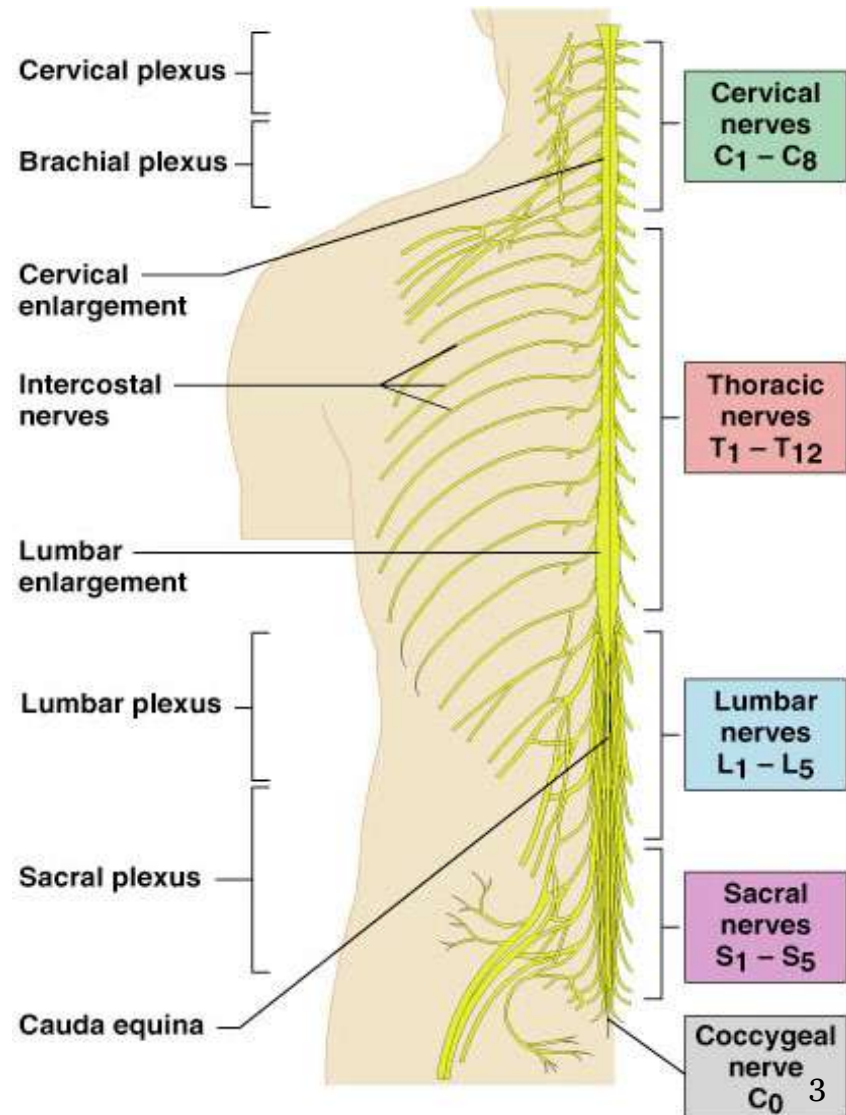
# Spinal Nerves

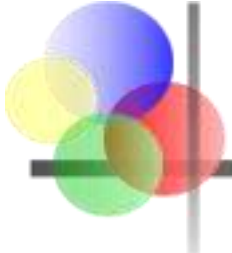




# Spinal Nerves

- 31 pairs of spinal nerves are attached to the spinal cord.
  - 8 cervical
  - 12 thoracic
  - 5 lumbar
  - 5 sacral
  - 1 coccygeal
- Each spinal nerve divides into a *dorsal* and *ventral* ramus.





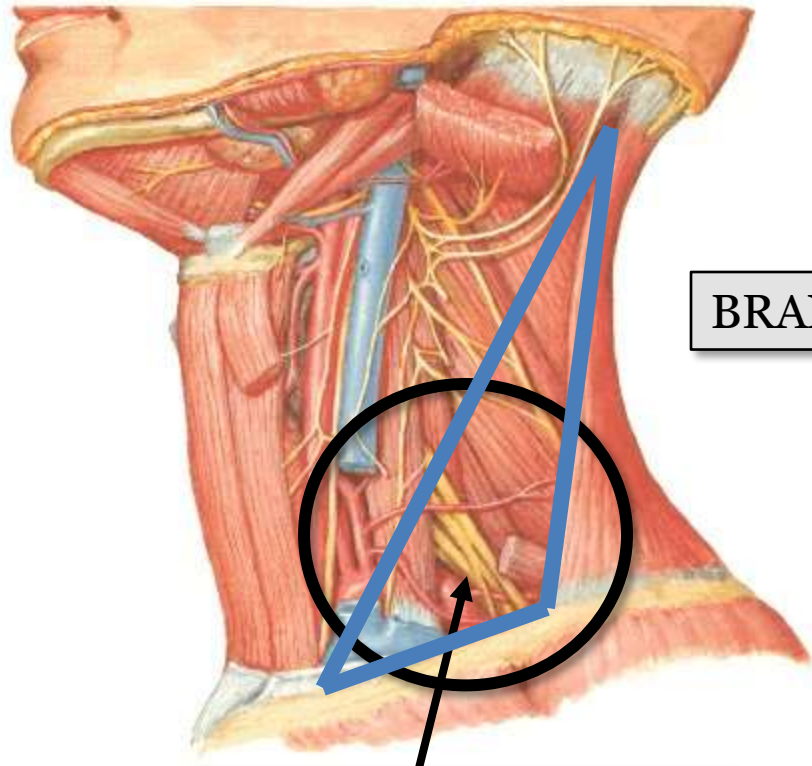
# Brachial Plexus

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- The brachial plexus is a network of nerves formed by the union of the anterior rami (branches) of **C5 – C8 & T1** spinal nerves.
- It originates in the neck, passes laterally & inferiorly over the first rib & enters the axilla (arm pit).
- All major nerves of the upper limb originate from parts of the brachial plexus.
- Divided into **ROOTS, TRUNKS, DIVISIONS,** and **CORDS. BRANCHES** emerge to supply the upper limb.

# Brachial Plexus

Lateral Cervical Region  
(**Posterior Triangle**)



**Brachial Plexus**

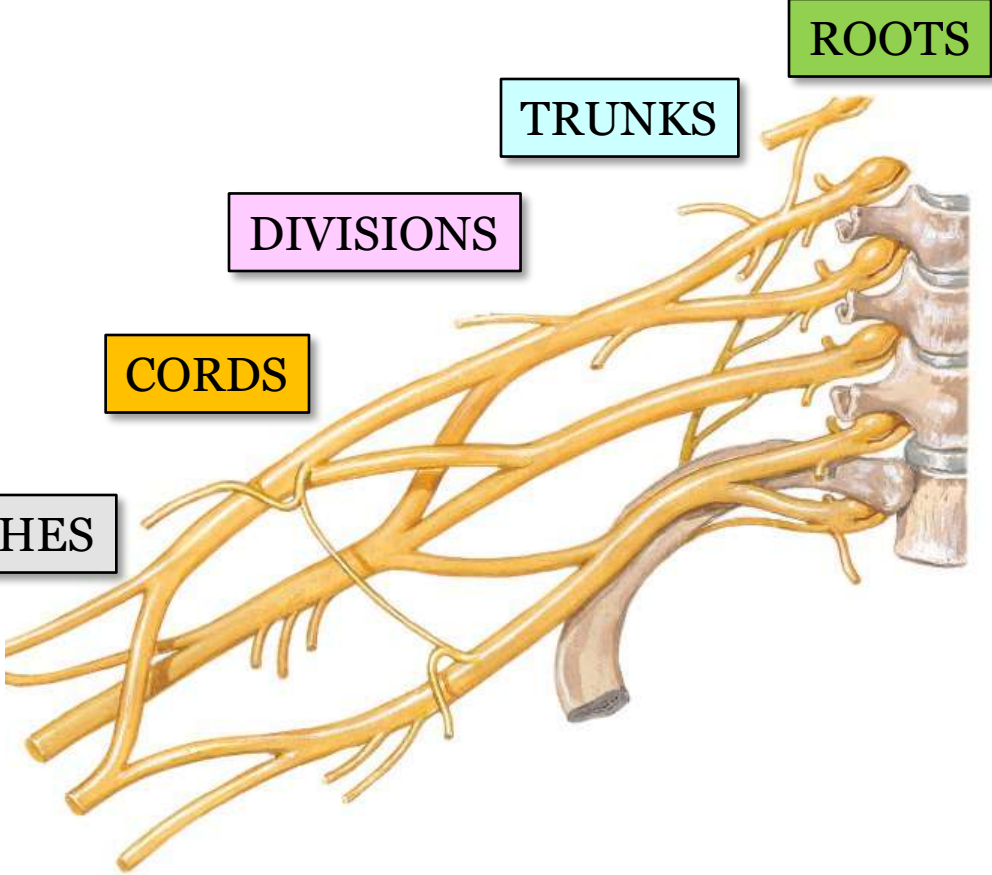
BRANCHES

CORDS

DIVISIONS

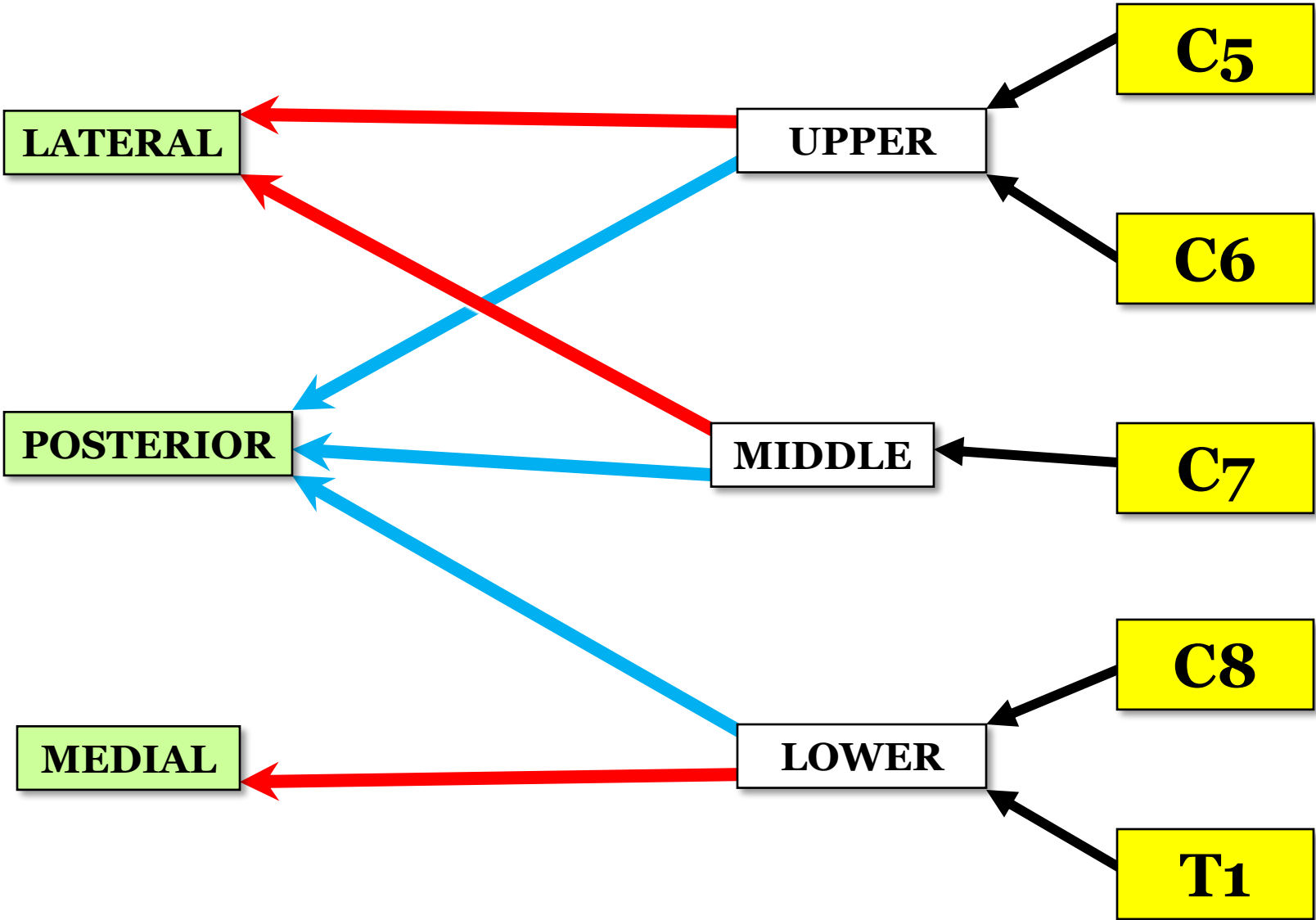
TRUNKS

ROOTS



**R**obert **T**rucker **D**rinks **C**old **B**eer

**CORDS**      **DIVISIONS**      **TRUNKS**      **ROOTS**





ROOTS

TRUNKS

DIVISIONS

CORDS

BRANCHES

C5

C6

C7

C8

T1

Upper

Middle

Lower

Lateral

Posterior

Medial

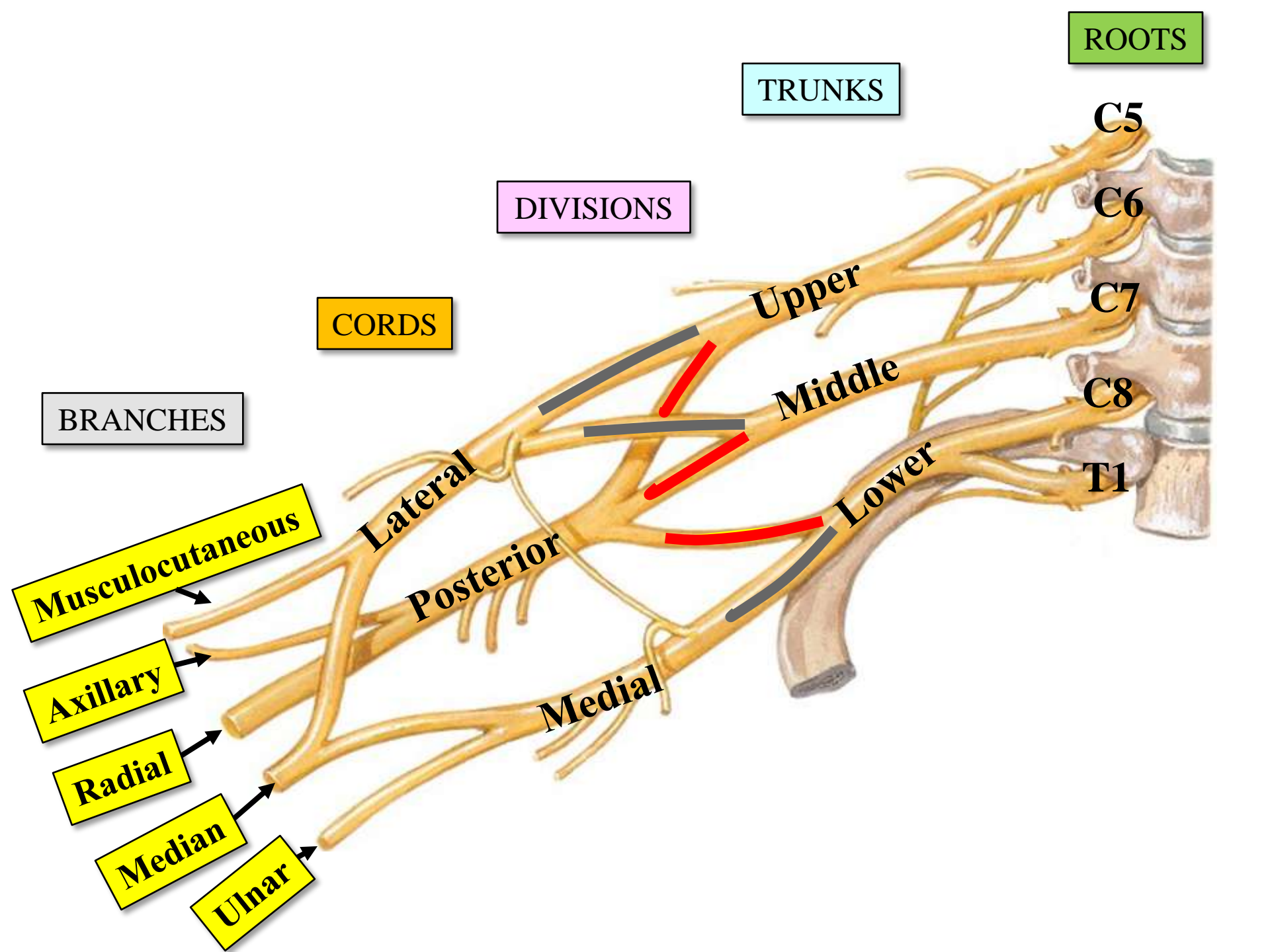
Musculocutaneous

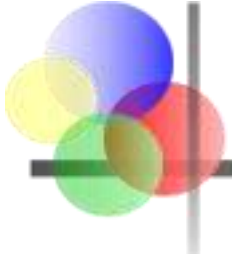
Axillary

Radial

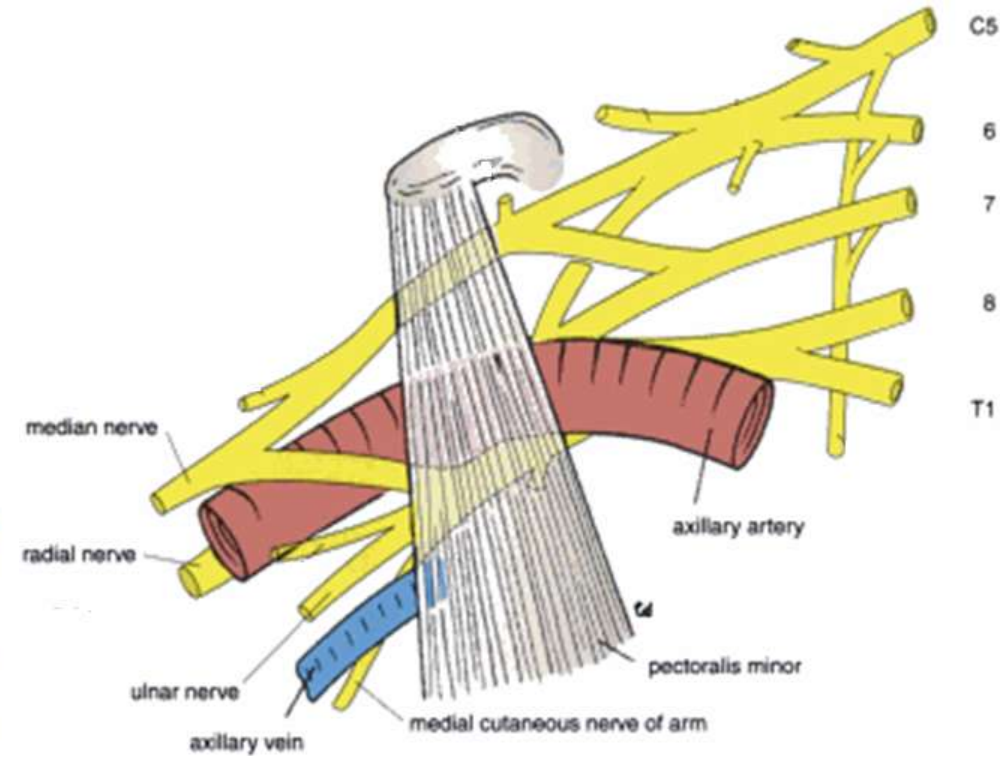
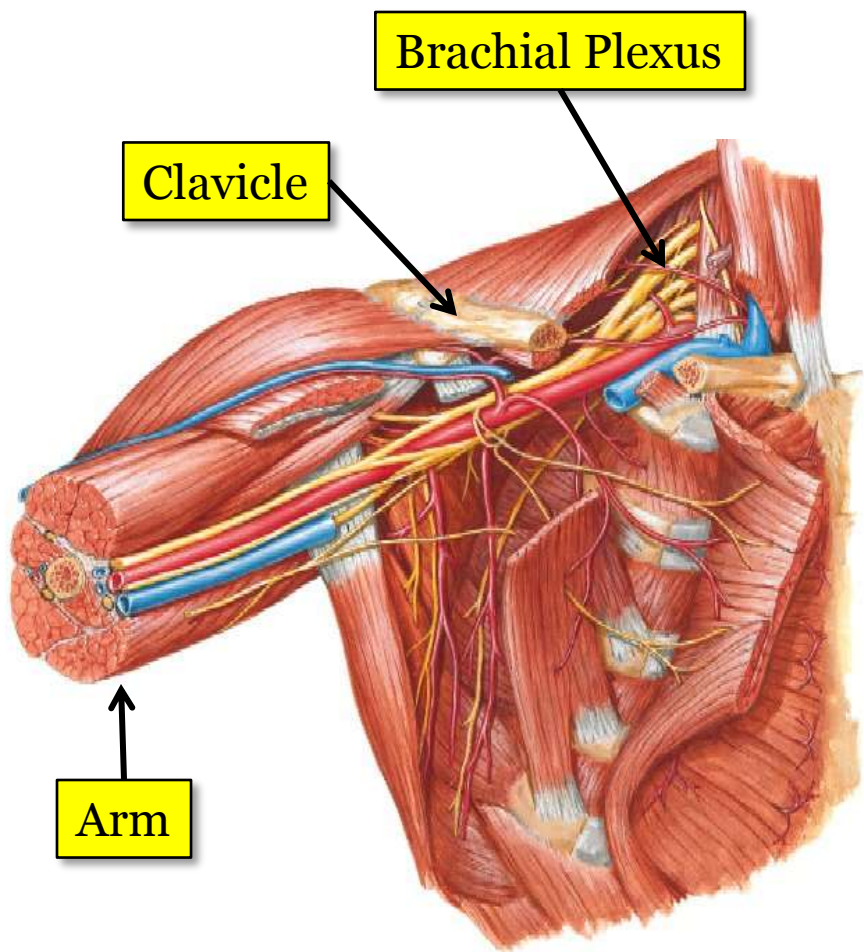
Median

Ulnar

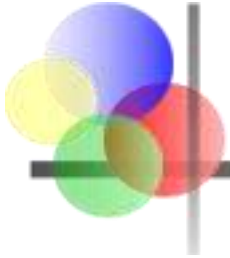




# Brachial Plexus

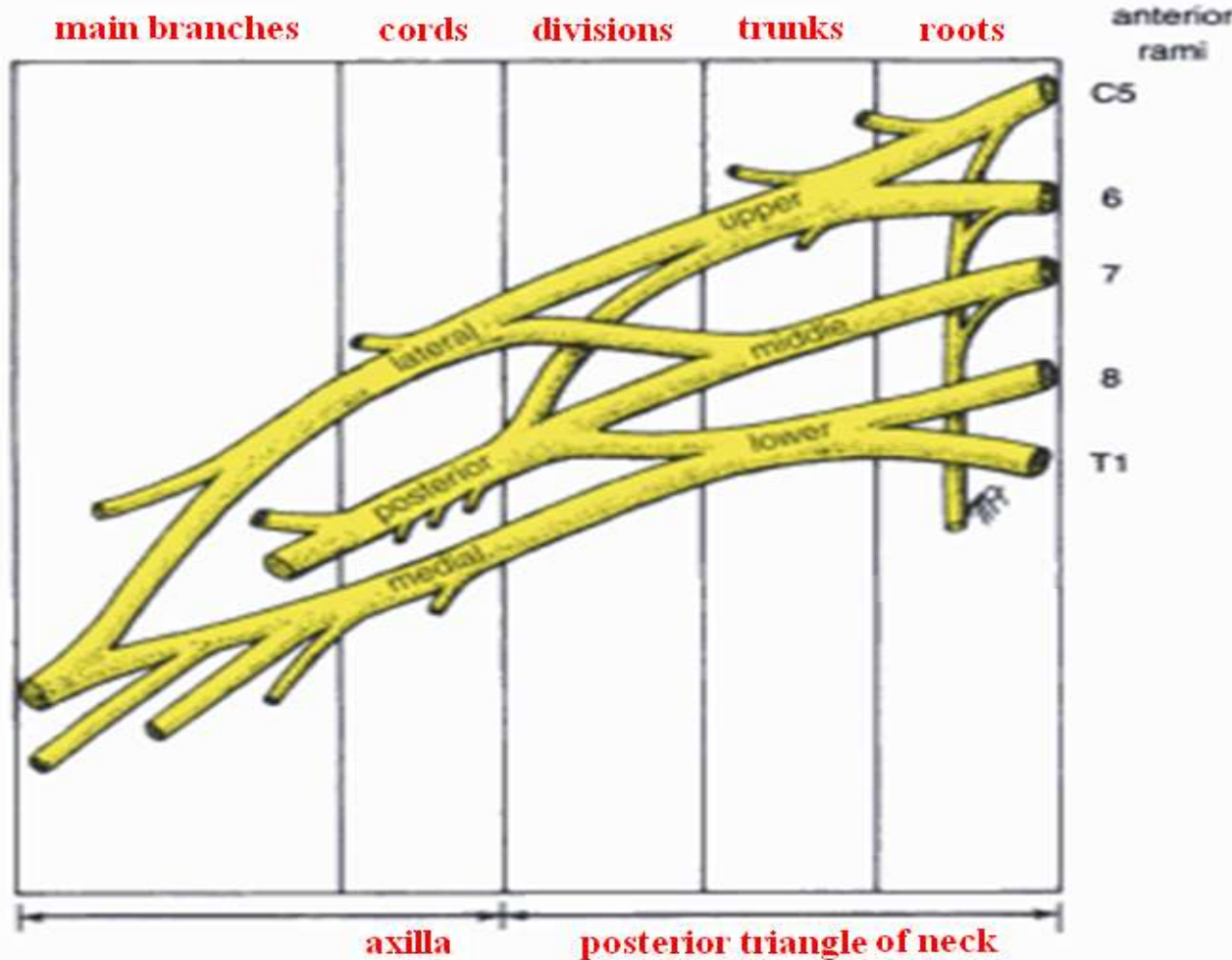






# Brachial Plexus

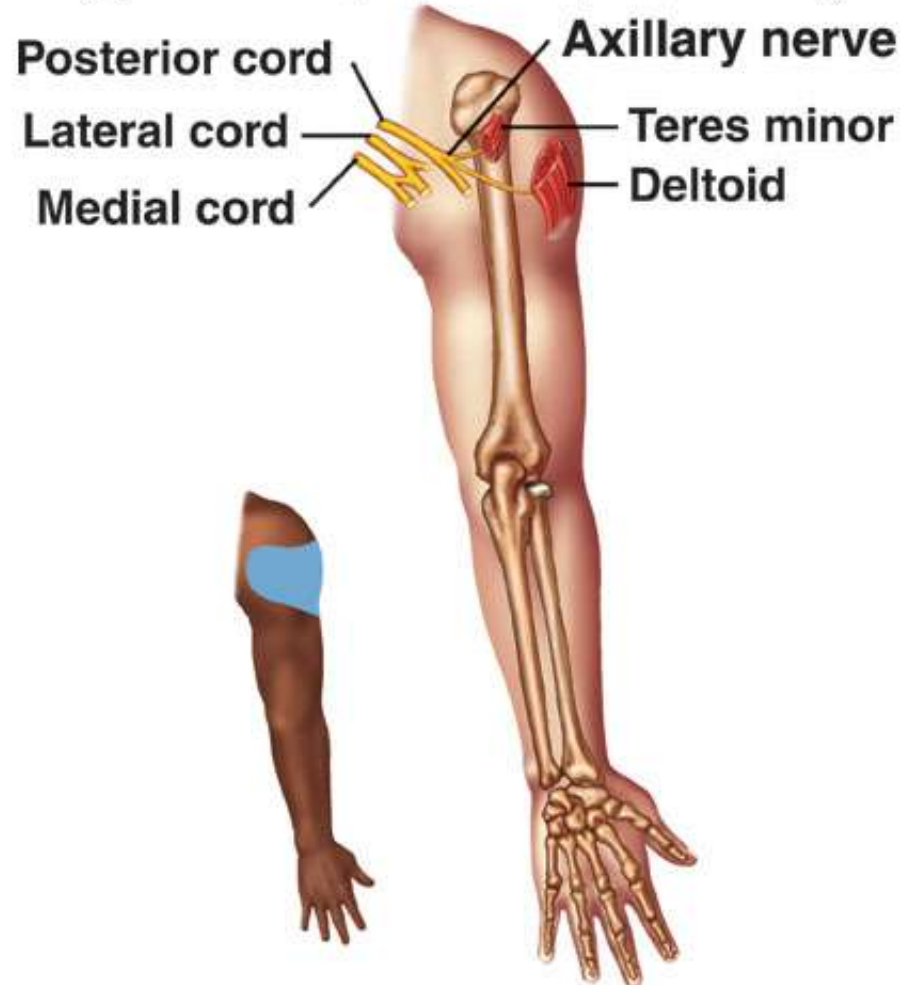
- **Major nerves:**
- Axillary
- Radial
- Musculocutaneous
- Ulnar
- Median

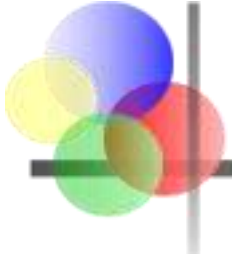




# Axillary Nerve

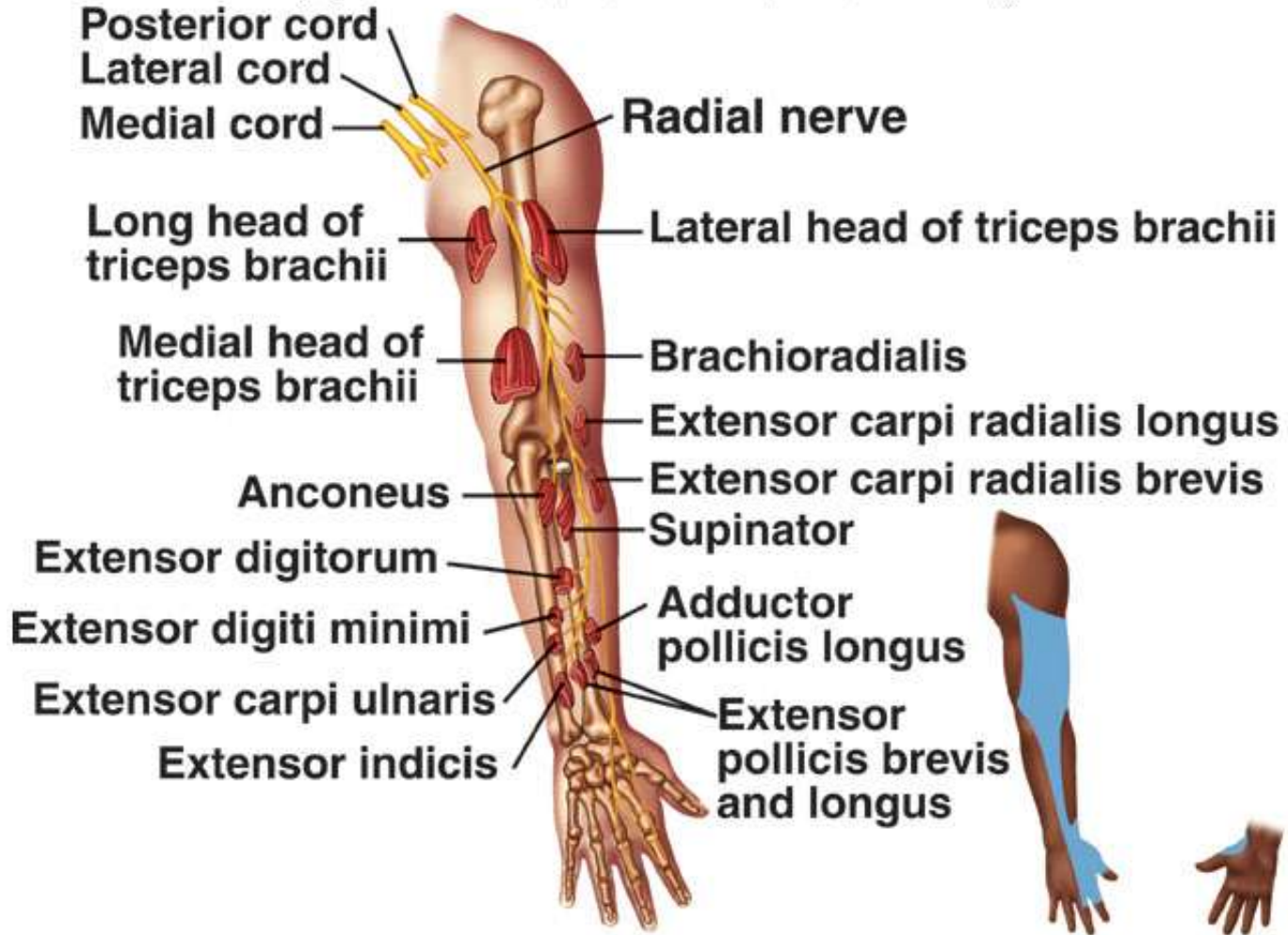
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# Radial Nerve

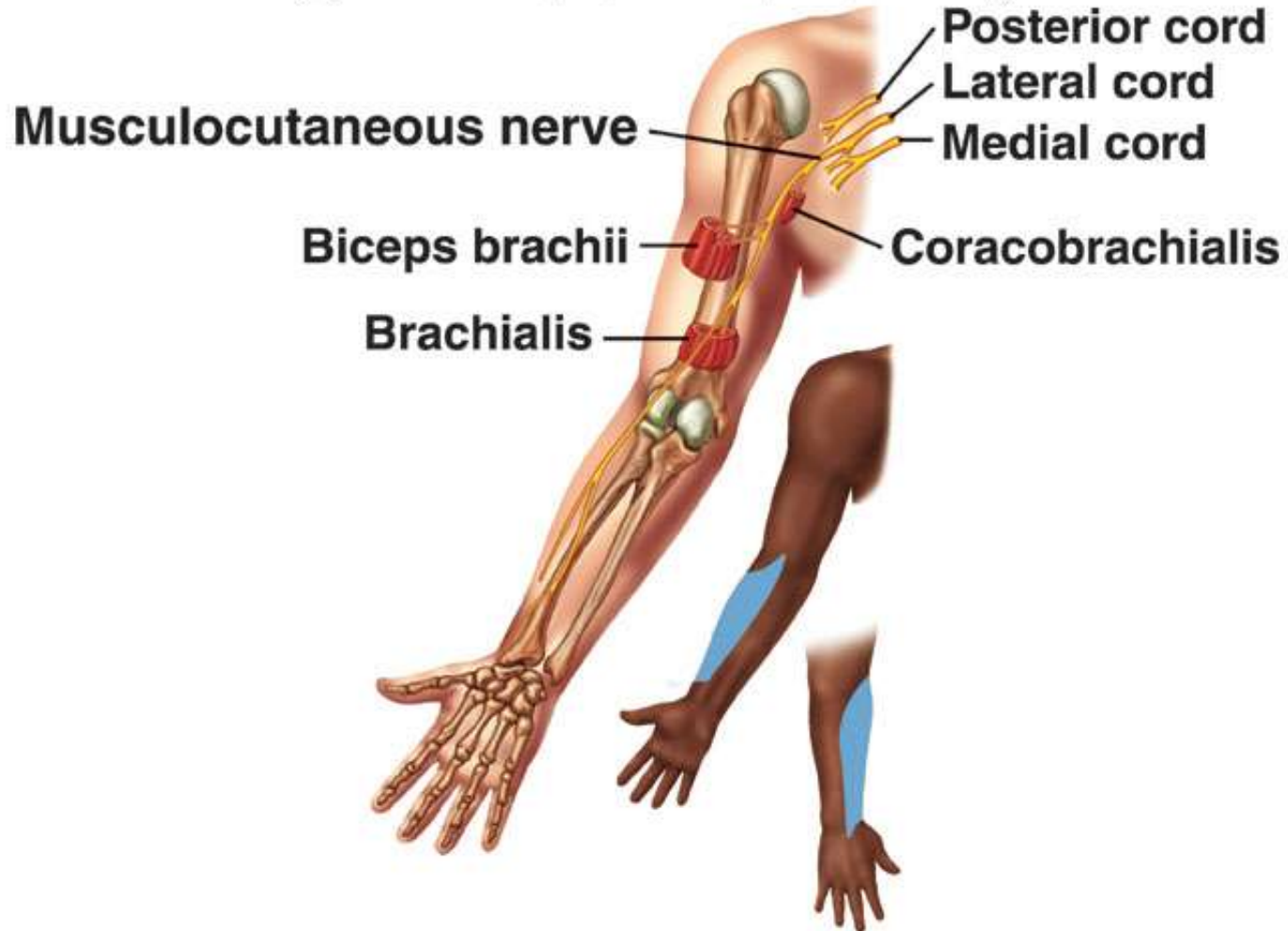
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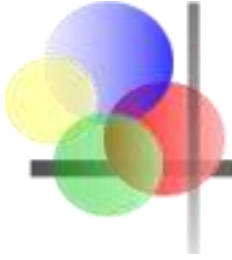




# Musculocutaneous Nerve

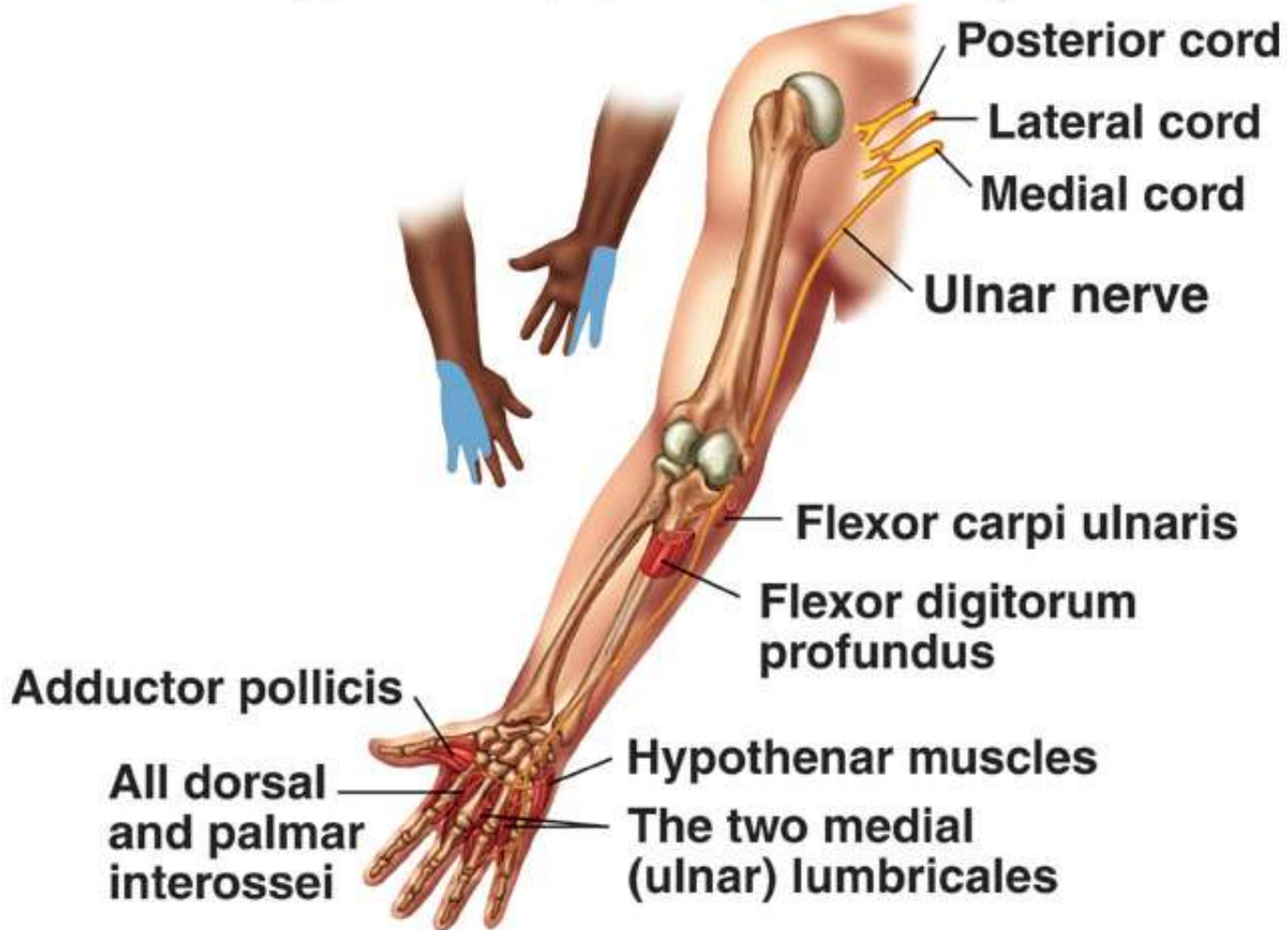
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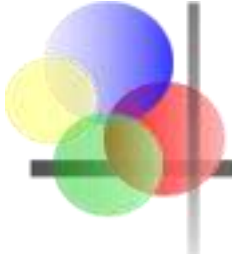


# Ulnar Nerve

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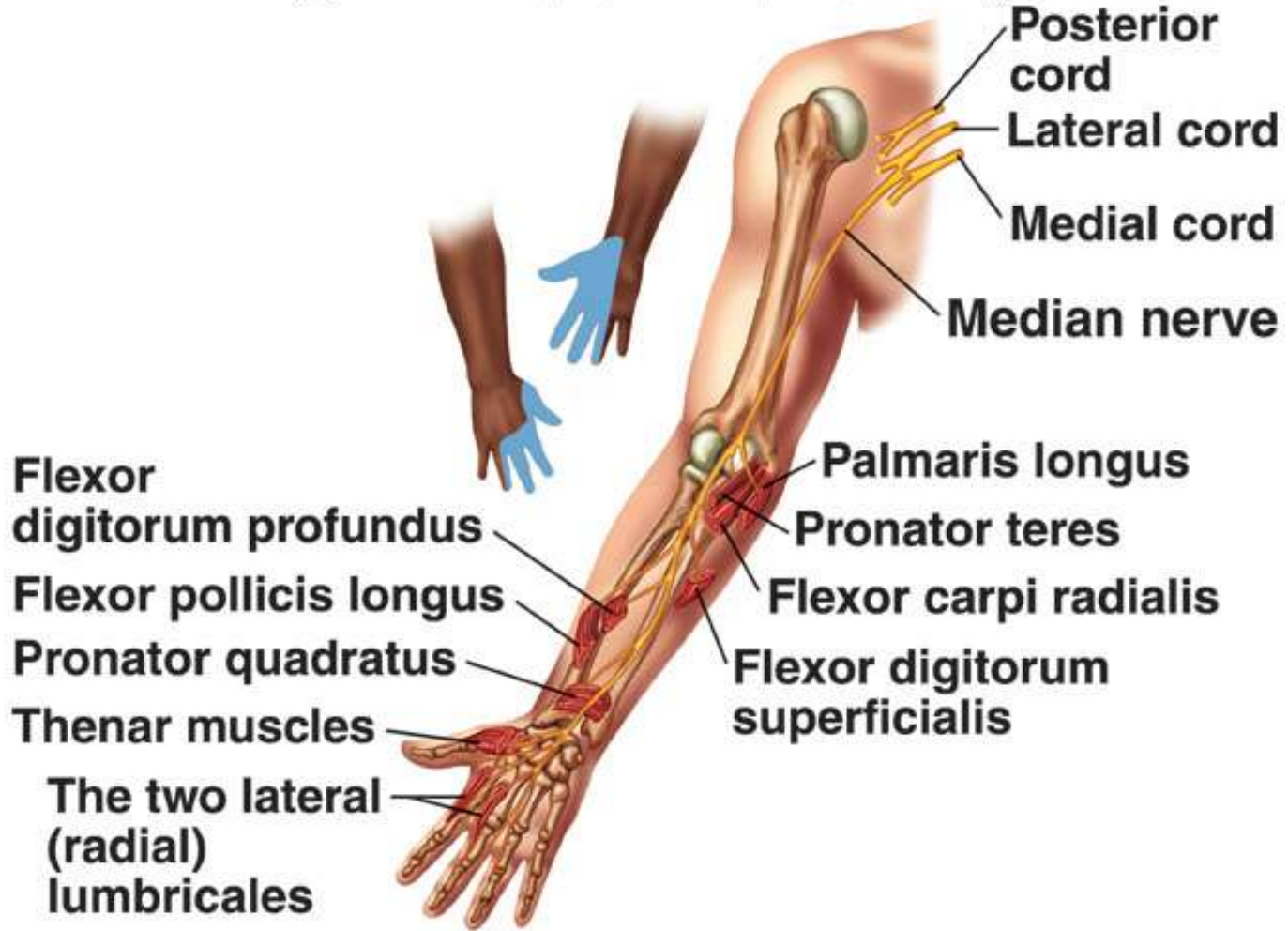


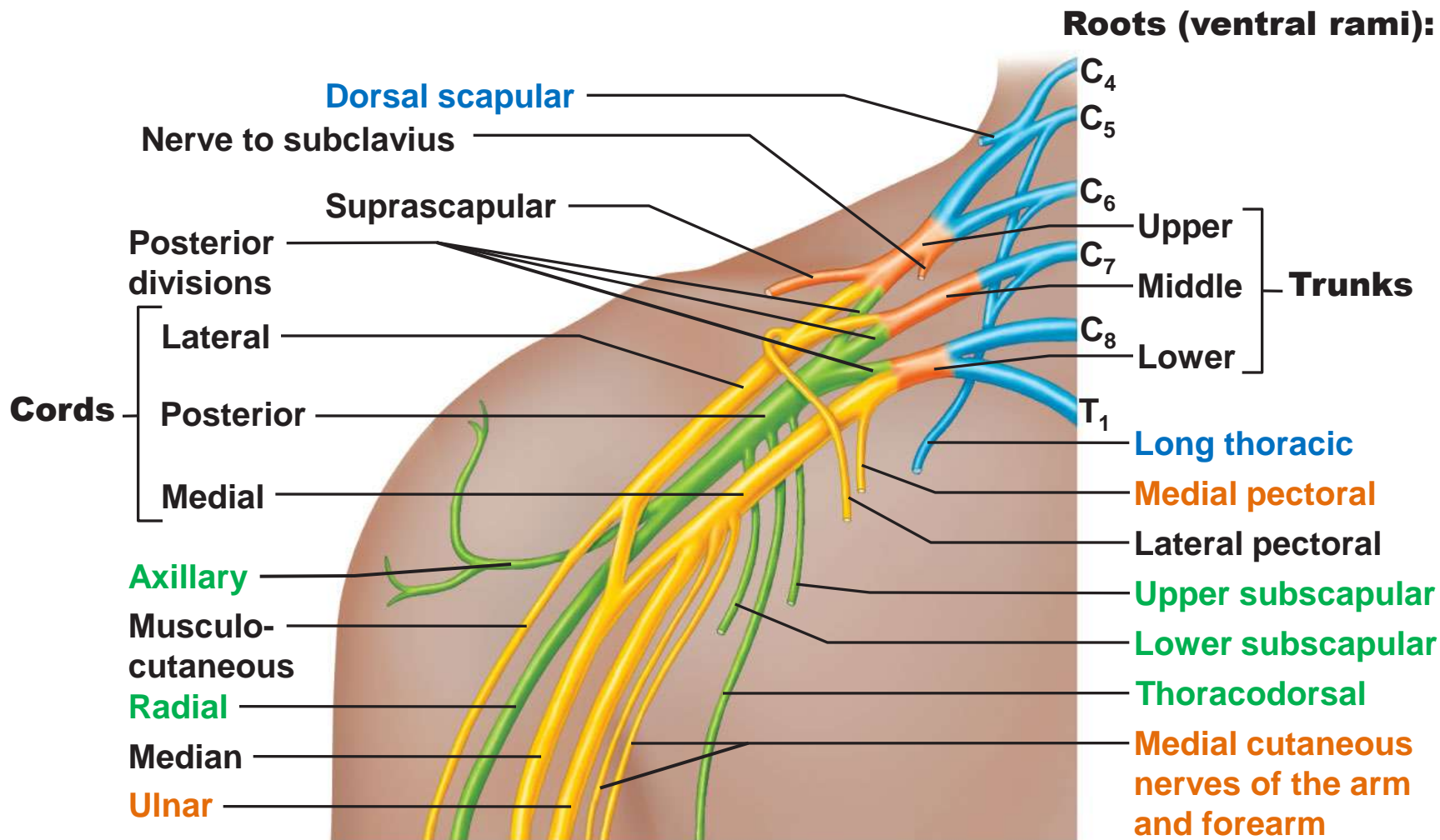




# Median Nerve

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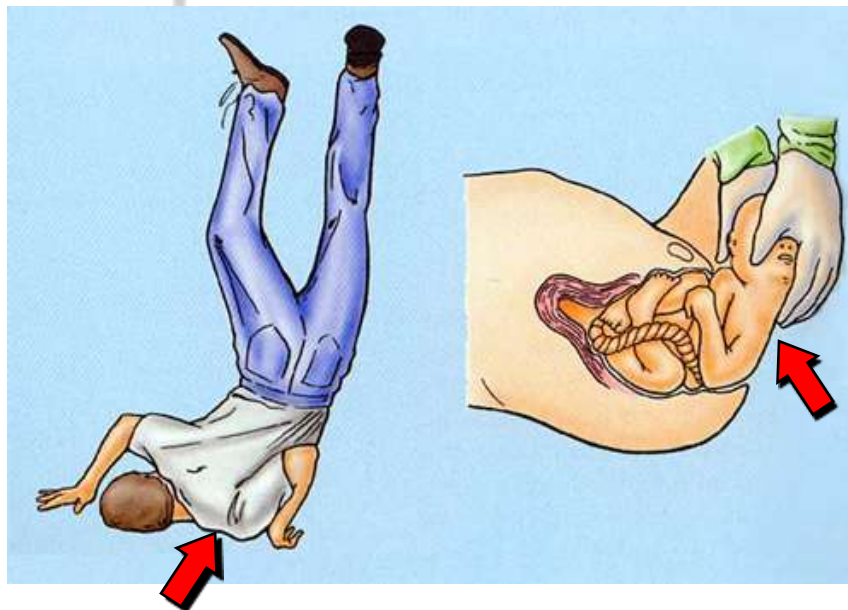


**(a) Roots (rami C<sub>5</sub> – T<sub>1</sub>), trunks, divisions, and cords**

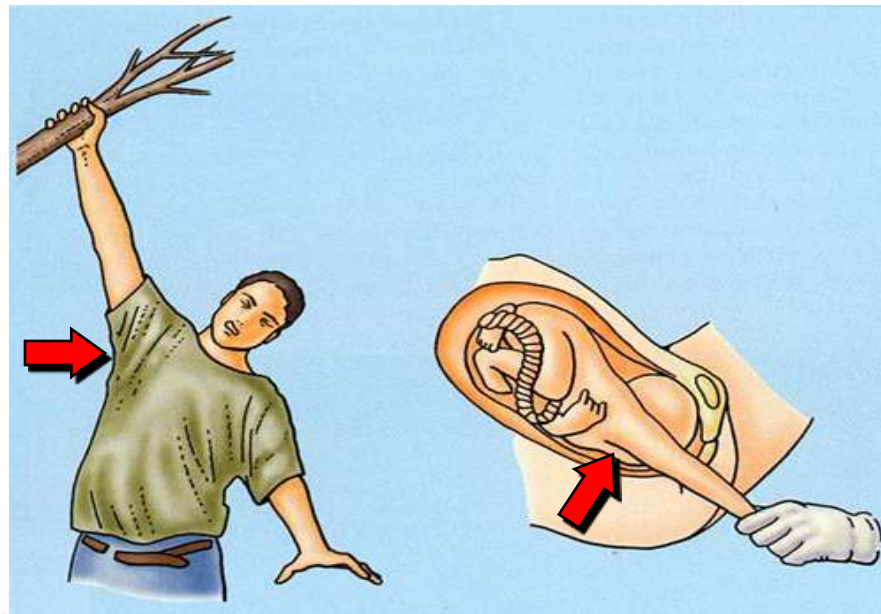




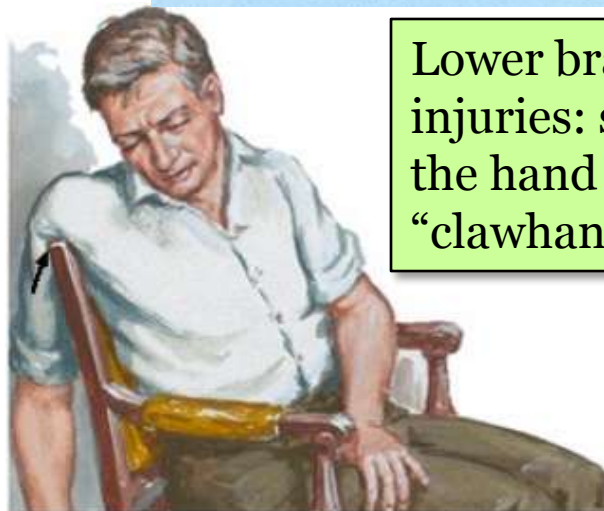
# Brachial Plexus Injuries



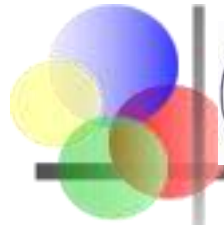
Upper brachial plexus injuries: “waiter’s tip position”



Lower brachial plexus injuries: short muscles of the hand are affected > “clawhand”







# Nerve Injury



“Hand of benediction”

**(a) Median nerve injury**



Clawhand

**(b) Ulnar nerve injury**

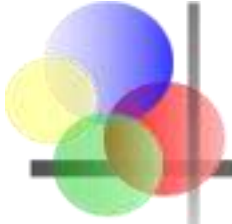


Wrist-drop

**(c) Radial nerve injury**

**Anaesthesia:** loss of sensation; may be pathological or induced to facilitate surgery or other medical treatment.

**Paraesthesia:** abnormal sensation e.g. tingling or burning.



# Questions...



Global culture (2): child jumping puddles in Tibet  
by Harry Kikstra