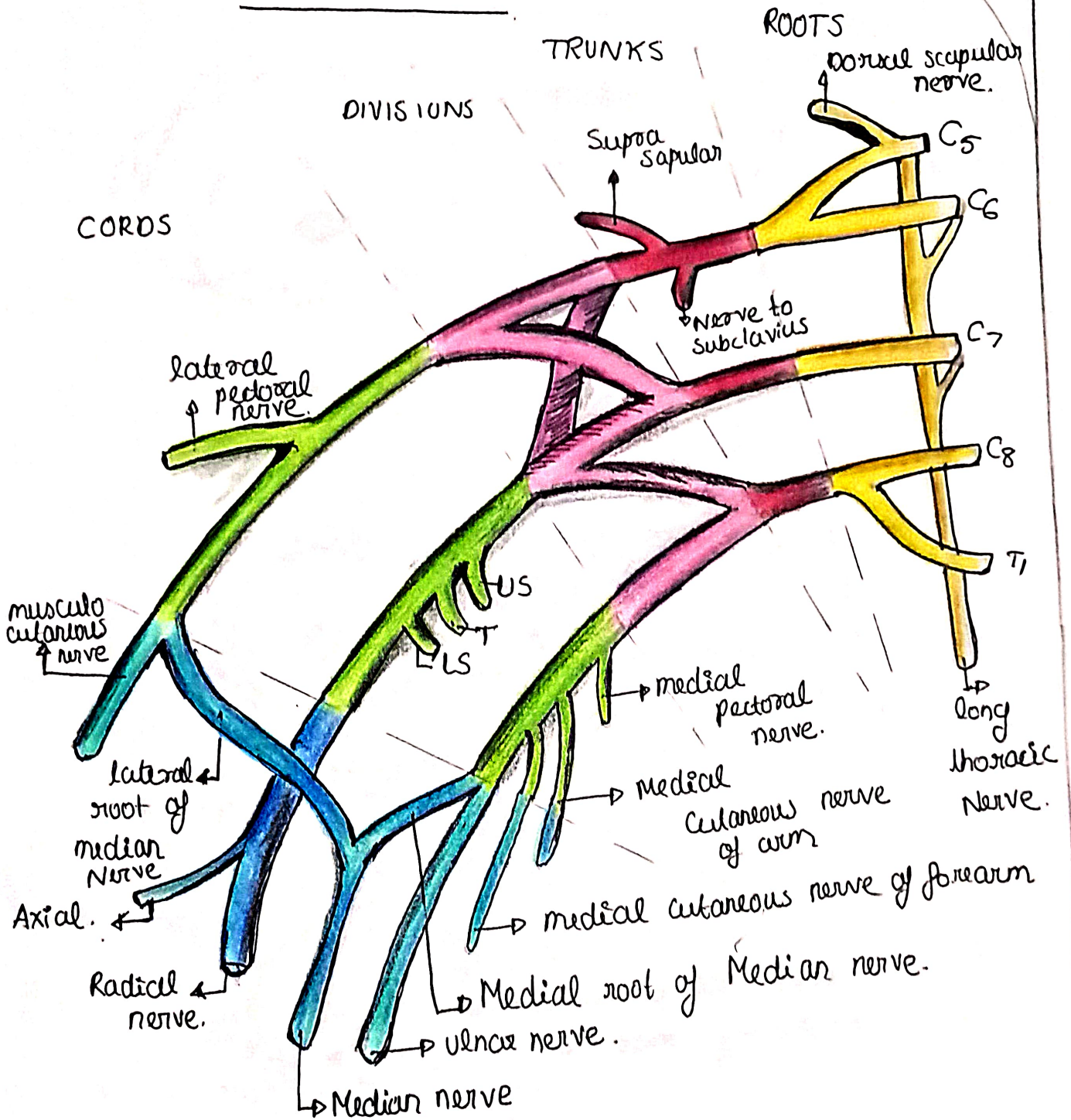


# BRACHIAL PLEXUS.



- US - upper subscapular nerve.
- T - Thoracodorsal nerve.
- LS - lower subscapular nerve.

# It is a plexus of nerves formed by anterior primary rami of C<sub>5</sub>, C<sub>6</sub>, C<sub>7</sub>, C<sub>8</sub> & T<sub>1</sub> [5 roots] and contribution from C<sub>4</sub> or T<sub>1</sub>  
 of contribution from C<sub>4</sub> (more) → prefixed BP.  
 from T<sub>2</sub> (more) → postfixed BP.

Components =  $\begin{cases} \text{Roots} \rightarrow 5 \text{ roots} \rightarrow C_5, C_6, C_7, C_8, T_1 \\ \text{Trunks} \rightarrow 3 \rightarrow \text{upper trunk, middle, lower.} \end{cases}$

behind clavicle ← { Divisions → A, P divisions  
 in axilla. ← { Cords → Lateral, medial, <sup>posterior</sup> middle cords.

## Components

① Roots → form C5, C6, C7, C8, T1  
(5)

→ IN THE NECK

② Trunks → 3.

Joining of.

• upper trunk → C5 & C6 root.

• middle trunk → C7 alone.

• lower trunk → C8 T1 root.

→ IN NECK

③ DIVISIONS → each trunk has anterior and posterior divisions.

Behind Clavicle.

Joining of.

④ CORDS → Lateral cord  
posterior.

anterior division of U & M trunk

• ~~middle~~ cord

post div of all trunks.

• medial cord

ant. div of L trunk alone.

IN DALLA

## Branches

- ① from root → C5 → Dorsal scapular nerve. (C5) <sup>rhomboids</sup>
- ② from trunk → upper → C5 C6 C7 → long thoracic nerve - SA  
Suprascapular & Nerve to Subclavius.  
(C5, C6) (C5, C6)

### ③ Cords → Lateral

- Lateral pectoral nerve. C5 C6 C7
- Lateral root of median nerve C5 C6 C7
- Musculocutaneous nerve. C5 C6 C7.

- posterior
- middle → Upper subscapular (C5 C6) ✓
- Thoracodorsal (C6 C7 C8) ✓ (lat dorsi)
- Lower subscapular (C5 C6) ✓
- Axillary (C5 C6) ✓
- Radial (C5 C6 C7 C8 T1) ✓ **VAII**

- medial → medial pectoral nerve. (C8 T1)
- med. cutaneous nerve of arm. (C8 T1)
- Forearm (C8 T1)
- ulnar nerve (C8 T1)
- medial root of median nerve (C8 T1)

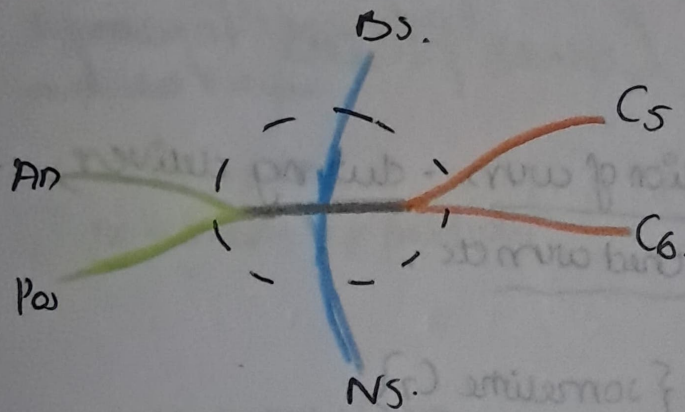
## Erb's point:

• region of upper trunk of BP where 6 nerve meet.

→ roots of C5, C6

→ NS & SS.

→ Ant & post divisions of upper trunk.



## Lesions of the brachial plexus.

Erb's paralysis.

"upper plexus injury"

• caused by excessive ↑ in angle between head and shoulders as in during traction during childbirth  
falling & landing on shoulders, onto head

Erb's palsy

Klumpke's are due to

lesions of BP

@ diff sides

⇒ Involves upper trunk  $C_6, C_5$ .

⇒ pOlicemenos/waivers / posterior tip hand.  
arm's hang by side.  
adducted arm, medially rotated arm.

No claw hand

Forearm → Extended & pronated.

### Klumpke's Paralysis. Lower plexus injury

- due to hyper abduction of arm - during delivery,  
falling with outstretched arm etc.

-  $C_8, T_1$  are injured {sometimes  $C_7$ }

- Claw hand

### In Exh's

Adduction of arm → due to paralysis of deltoid muscle.

medial rotation →  $C_8, T_1$ , Supra Spinatus, Infraclapin, lower m 100

pronated & extend } biceps paralysis

Erb's

Klumpke's

nerve roots involved

C5, C6

C8, T1

muscle paralyzed

deltoid, supraspinatus, infraspinatus, biceps brachii, brachialis, brachioradialis, supinator, extensor carpi radialis longus.

all intrinsic muscles of hand.

position of ul/hand

pollicemad, tip position.

claw hand

Sensory loss

outer aspect of arm.

medial border of forearm & hand.

Autonomic Signs

X

✓ Horner's syndrome.