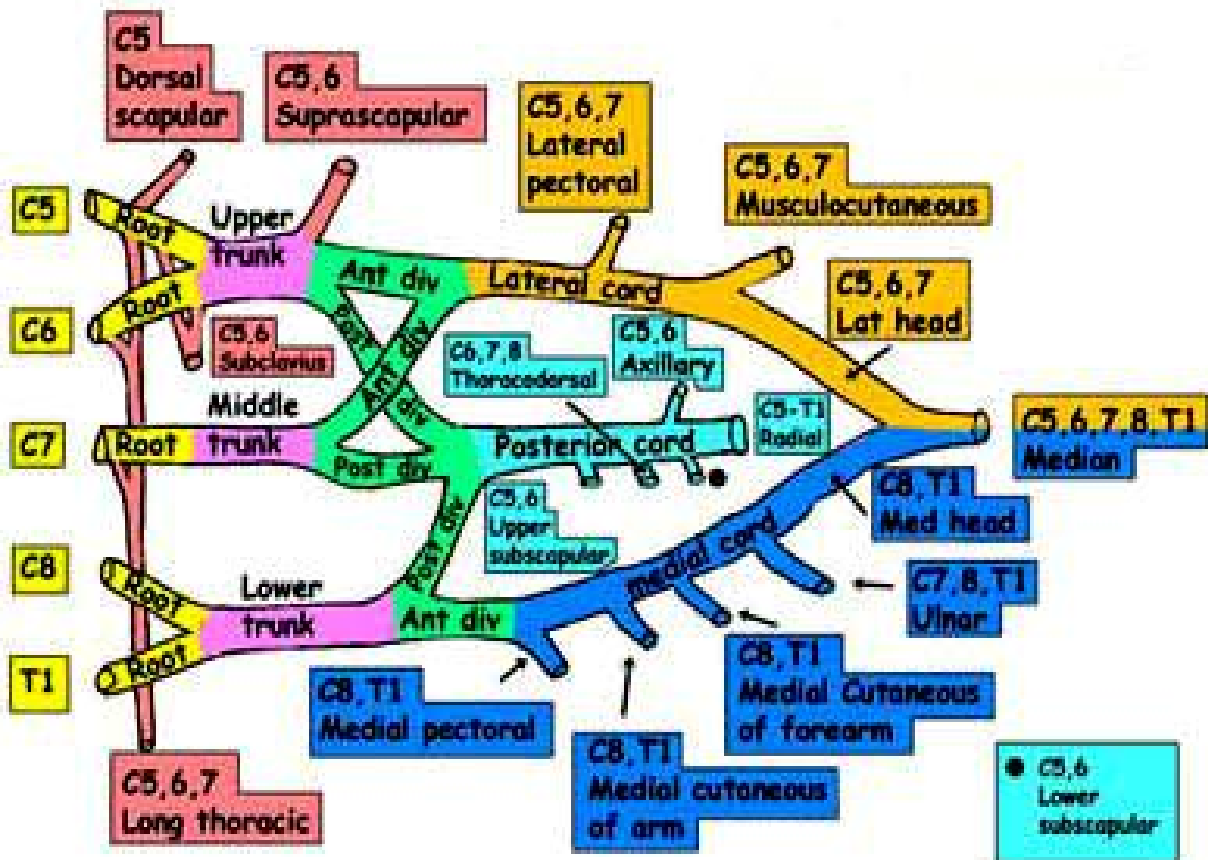


Brachial Plexus Summary



**it has the following stages :*

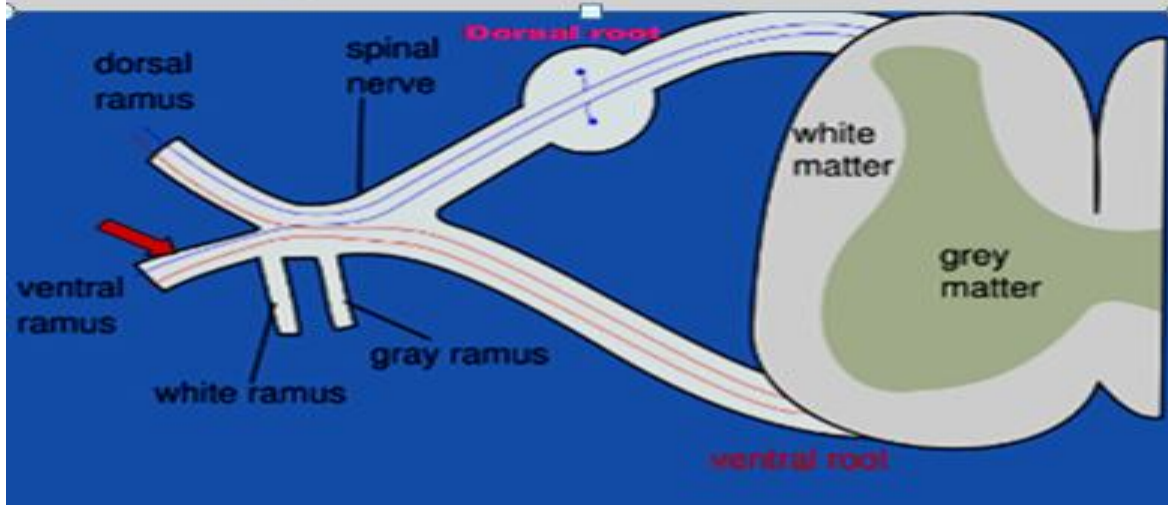
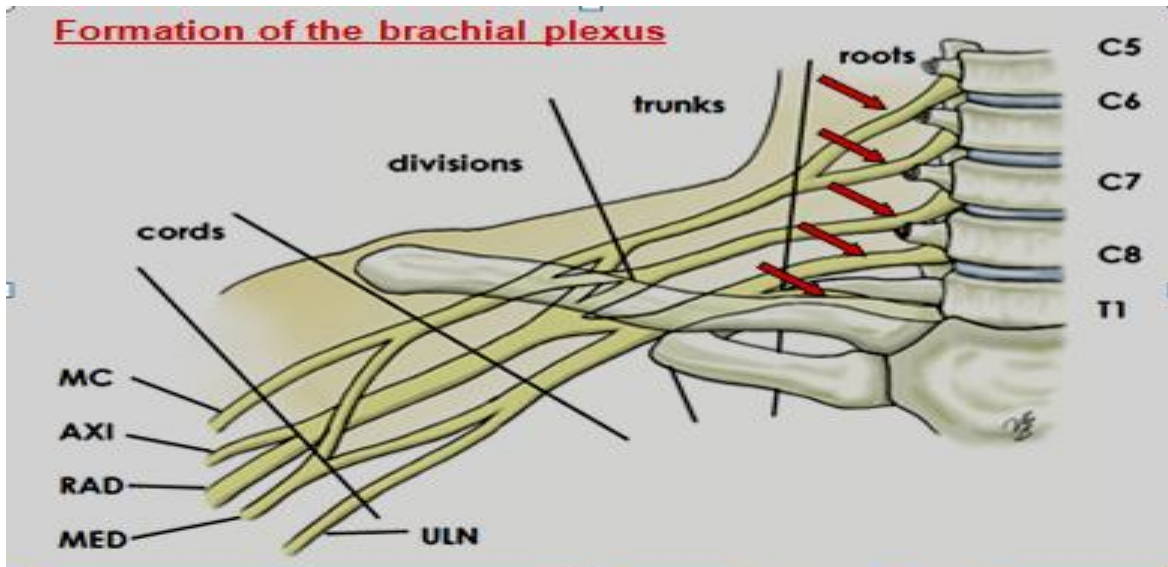
1) stage Of roots :

** They are the ventral Rami Of {C5,C6,C7,C8,T1} spinal nerves .*

** Branches to UL :*

A)Nerve to serratus anterior (Long thoracic nerve) .take the root Of (C5,6,7)

B) Nerve to romboids (C5). {Dorsal Scapular }



2) Stage Of trunks :

Three trunks are formed from above mentioned roots. they are ;

A) Upper trunk from (C5 ,C6)roots.

B) Middle trunk from (C7 Only)

C) Lower trunk from (C8,T1)

- **Branches :**

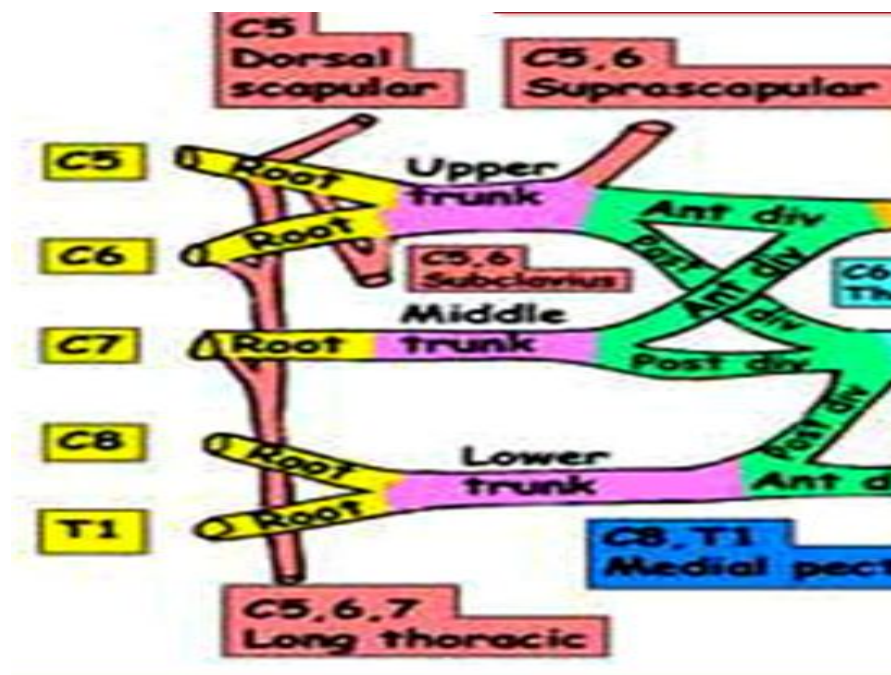
Only the Upper trunk of brachial plexus gives two branches :

A) Subscapular (N) (C5,C6)

B) Nerve to Subclavius.

The Figure Shows the branches Of roots (Dorsal Scapular (C5) and Nerve to serratus anterior (c5,6,7) .

The branches of Upper trunk (Suprascapular (c5,6) and N to subclavius (also c5,6)



****Stage of divisions :***

1) it is found in the clavicle .

2)Each trunk divides into anterior and posterior division .

**** Stage Of Cords :***

➤ ***It is found in the axilla***

➤ ***The cords are enclosed with the axillary artery by the axillary sheath but the axillary vein is outside the sheath to allow its distention which is needed to increase the venous return during muscular exercise.***

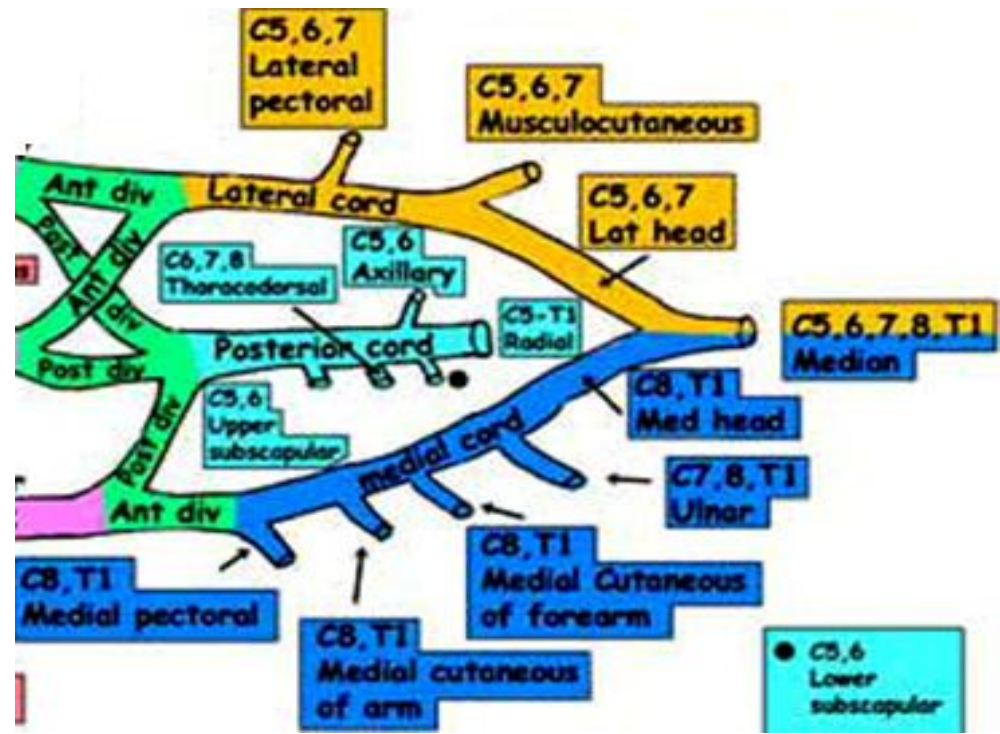
➤ ***The cords end at the same point of 2nd part axillary artery termination (At the lower border of Pectoralis minor .m)***

➤ ***Three cords are formed according their position in relation to the 2nd part of axillary artery ,they are lateral,posterior and medial cords of brachial plexus .***

This table shows the formation,root value ,realtion to axillary A and branches of each cord .

	<i>Lateral cord</i>	<i>Posterior cord</i>	<i>Medial Cord</i>
<i>Formation</i>	<i>Anterior divisions of upper and middle trunks</i>	<i>Posterior divisions of all trunks</i>	<i>Anterior division of the lower trunk</i>
<i>Root Value</i>	<i>C5,6,7</i>	<i>C5,6,7,8,T1</i>	<i>C8,T1</i>
<i>Relation to axillary (A)</i>	<i>Lateral to 1st and 2nd part</i>	<i>Lateral to 1st part but behind the 2nd part</i>	<i>Behind the 1st part but medial to the 2nd part</i>
<i>Branches (the largest one is underlined)</i>	<p><i>They are all carries the same root value of (C5,6,7) and they are :</i></p> <p><i>1) Lateral Pectoral nerve</i></p> <p><i>2) Musculo-cutaneous n</i></p> <p><i>3) lateral root of Median nerve</i></p>	<p><i>Hint (ULNAR)</i></p> <p><i>U: Upper</i> <i>subscapular n (C5,6)</i></p> <p><i>L: Lower</i> <i>subscapular n (c5,6)</i></p> <p><i>N: nerve to latissimus dorsi (c5,7,8)</i></p> <p><i>A: Axillary (n)</i> <i>it seems like a circumflex nerve (c5,6)</i></p> <p><i>R: Radial (n)</i> <i>(C5,6,7,8,T1)</i></p>	<p><i>1) Medial cutaneous n if arm (C8,T1)</i></p> <p><i>2) Medial cutaneous nerve of forearm (C8,T1)</i></p> <p><i>3) Medial pectoral n(c8,t1)</i></p> <p><i>4) Medial root of Median n(c8,T1)</i></p> <p><i>5) Ulnar n (c7,8,T1)</i></p>

_this figure shows the how the cords are formed by divisions and the branches of each cord



Notes :

- 1) The Brachial plexus serves the Motor innervations of muscles of upper limb except Trapezius**
- 2) The brachial plexus supplies all skin of UL except :**
 - A) Over the upper lateral part of deltoid (By lat subclavicular nerve)**
 - B) Base of axilla + upper medial part of arm → by intercostobrachial n**
 - C) Pectoral region → by supraclavicular and intercostal n.**
- 3) c7 fibres carried to ulnar nerve through communication with median nerve in axilla, forearm and palm .**

The table below Shows the all branches Of brachial plexus:

Brachial Plexus Branch	Origin	Spinal Segment	Function
Dorsal scapular	C5 root	C5	Motor: Rhomboid major/minor
Long Thoracic	C5 to C7 roots	C5 to C7	Motor: Serratus anterior
Suprascapular	Superior trunk	C5 to C6	Motor: Supra/infraspinatus
Nerve to subclavius	Superior trunk	C5 to C6	Motor: Subclavius
Lateral pectoral	Lateral cord	C5 to C7	Motor: Pectoralis major
Musculocutaneous	Lateral cord	C5 to C7	Motor: All muscles in anterior compartment of arm Sensory: Skin on lateral side of forearm
Medial pectoral	Medial cord	C8 to T1	Motor: Pectoralis major/minor
Medial cutaneous of arm	Medial cord	C8 to T1	Sensory: skin on medial distal 1/3 of arm
Medial cutaneous of forearm	Medial cord	C8 to T1	Sensory: skin on medial side of forearm
Median nerve	Medial and lateral cords	C5 to T1	Motor: All muscles in anterior compartment of forearm (except flexor carpi ulnaris and medial half of flexor digitorum profundus), three thenar muscles and two lateral lumbrical mm. Sensory: Skin over the palmar surface of the lateral three and one half digits and lateral side of palm and middle of wrist
Ulnar nerve	Medial cord	C8 to T1	Motor: All intrinsic muscles of hand (except 3 thenar muscles and two lateral lumbricals); flexor carpi ulnaris and medial half of flexor digitorum profundus in the forearm Sensory: Palmar surface of medial and one and one-half digits and associated palm and wrist, and skin over dorsal surface of the medial one and one-half digits
Superior Subscapular	Posterior cord	C5, C6	Motor: Subscapularis
Thoracodorsal (Middle subsca)	Posterior cord	C6 to C8	Motor: Latissimus dorsi
Inferior Subscapular	Posterior cord	C5, C6	Motor: Subscapularis and teres major
Axillary	Posterior cord	C5, C6	Motor: Deltoid and teres minor Sensory: Skin over upper lateral part of arm
Radial	Posterior cord	C5 to T1	Motor: All muscles in posterior compartment of arm and forearm

			Sensory: Skin on posterior arm and forearm, lower lateral surface of arm, and the dorsal lateral surface of hand
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