Al-Mustaqbal University

College of Engineering & Technology

Biomedical Engineering Department

Subject Name: Anatomy II

2nd Class, Second Semester

Subject Code: [UOMU011045]

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DR battol ali…….

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Lecture No.: - 3-

Lecture Title: [anatomy of upper limb.]

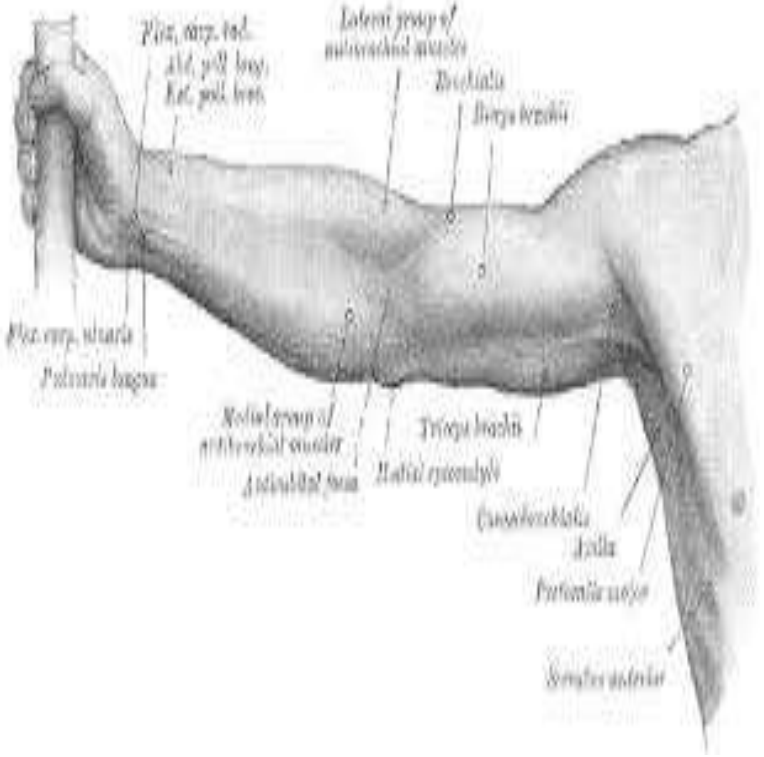
Anatomy of upper limbs

Lecture 4

1st stage

Almustaqbal university

By Dr AHMED NEAMAH



Contents

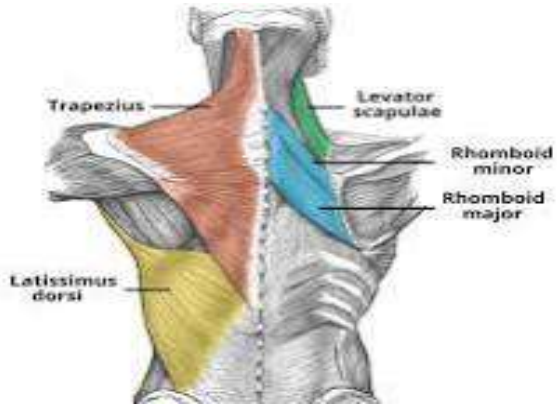
- Relationship to other regions
- Muscles of upper limbs
- Nerves of upper limbs
- Vessels of upper limbs

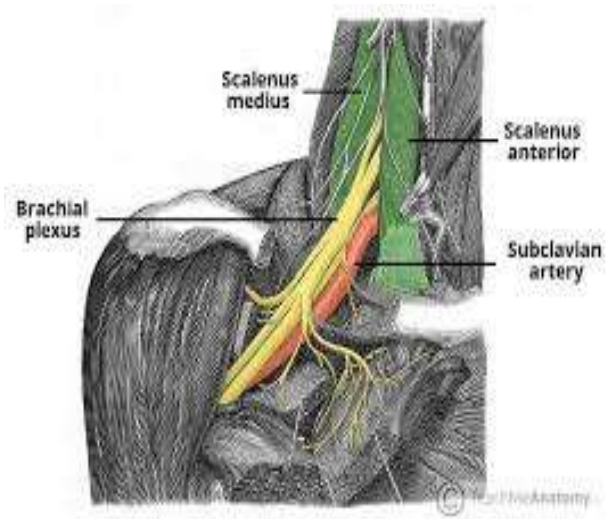
INTRODUCTION

- Overview of upper limbs anatomy

Relation to other regions

- Shoulder& thorax: connection via pectorals muscles& shoulder girdle
- Neck: passage of brachial plexus & subclavian vessels
- Back: involvement of trapezius, latissmus dorsi muscles





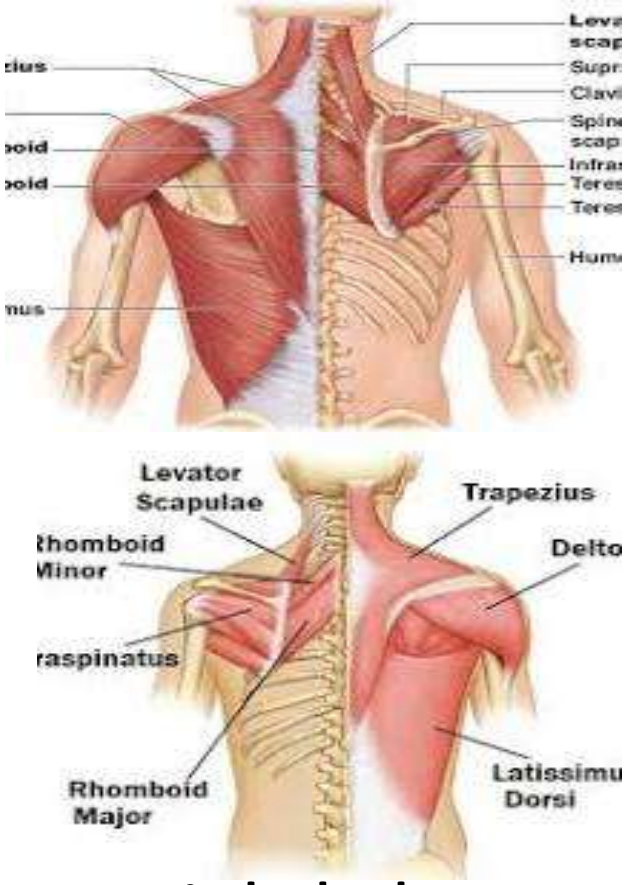
Extrinsic shoulder muscles

- Superficial group:

1. Trapizius ,
2. latissmus dorsi

*Deep group:

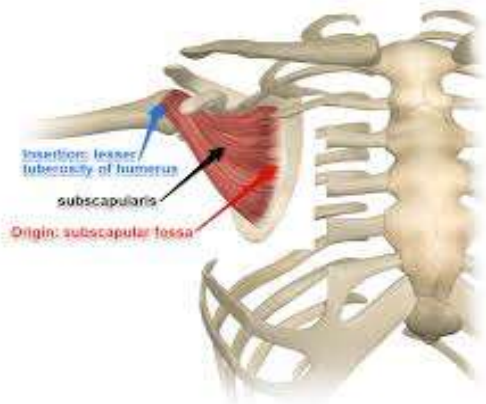
1. Levator scapule m.
2. . Rhomboids m.

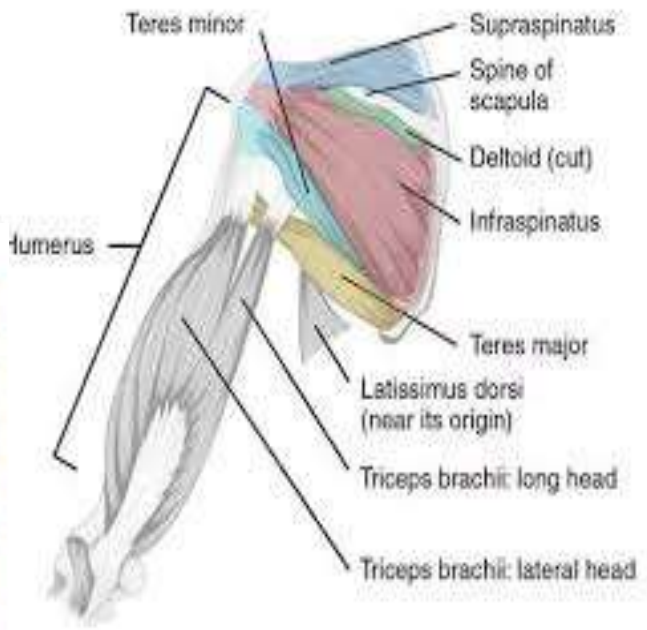


Function: connects upper limbs to axial skeleton

Intrinsic shoulder muscles

- Deltoid muscle: arm abductio
- Rotator cuff ms.(SITS)
- Supraspinatous
- Infraspinatious
- Teres minor
- Subscapularis
- Function: stabilize& move shoulder





Nerves of upper limbs

Brachial plexus

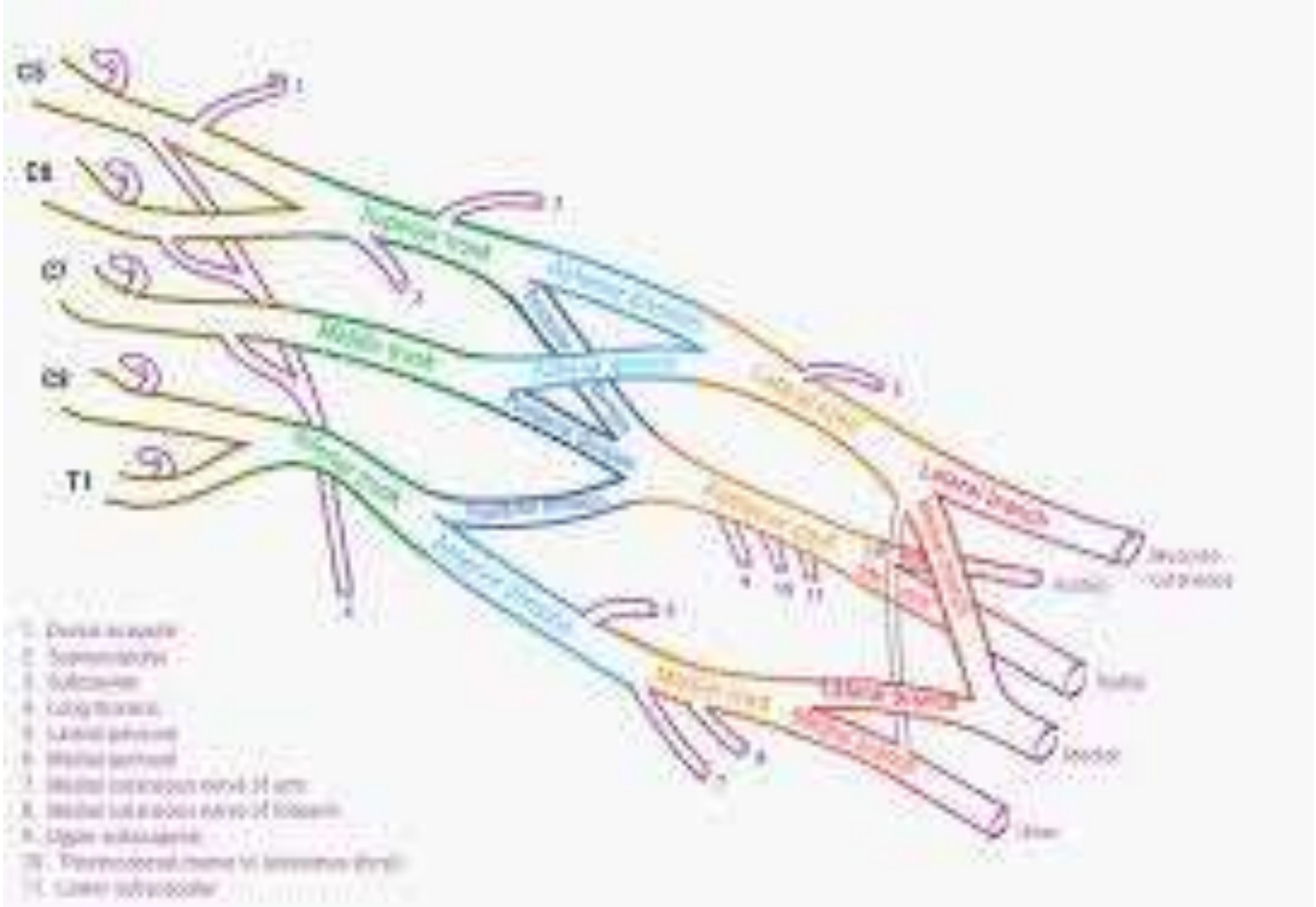
1.Roots: from(C5-C6-C7-C8-T1), emerge from intervertebral foramina.

2.Trunks: superior trunk(C5-C6), middle trunk(C7), inferior trunk(C8-T1)

3. Divisions: each trunk divided into: anterior, posterior division

4: Cords: lateral, posterior, medial

Figure of brachial plexus

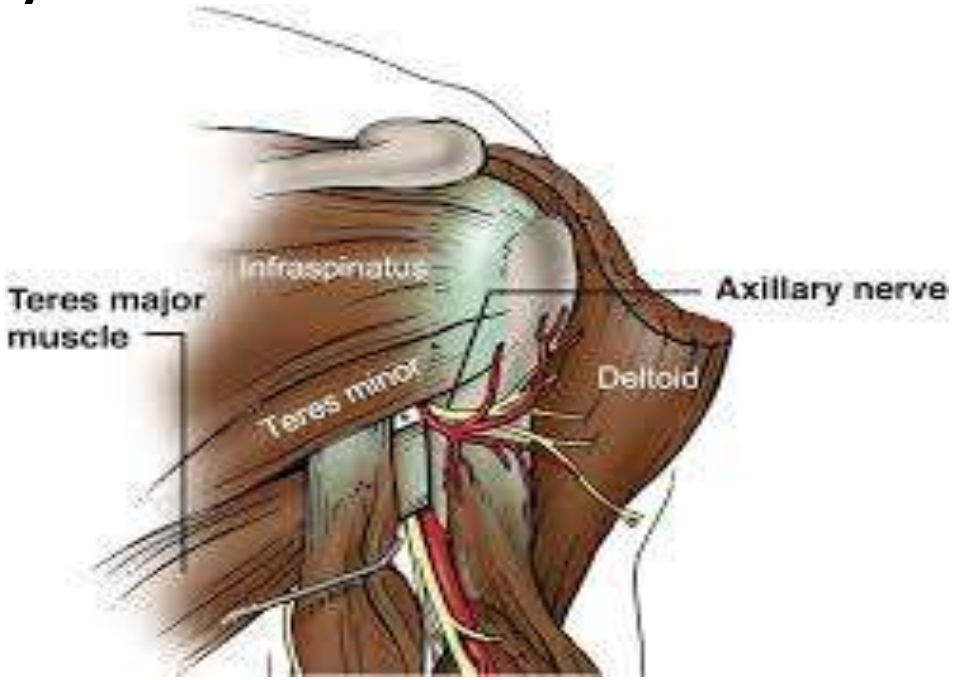


Nerves of upper limbs

- 1: Musculocutaneos n.
- Derived from (C5-C7)
- Motor: supply (biceps brachi, brachialis m.), flexion elbow.
- Sensation: lateral forearm

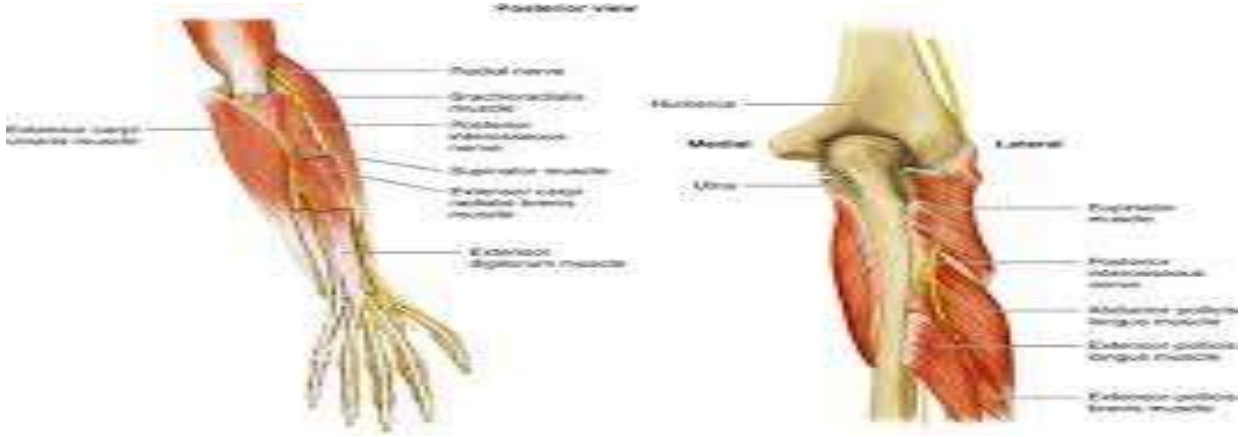
Axillary nerve

- Origin from(C5-C6)
- Motor: supply(deltoid m.), shoulder abduction
- (teres minor m.), external rotation
- Sensory: give upper lateral cutaneous n. of arm supply skin over deltoid m.



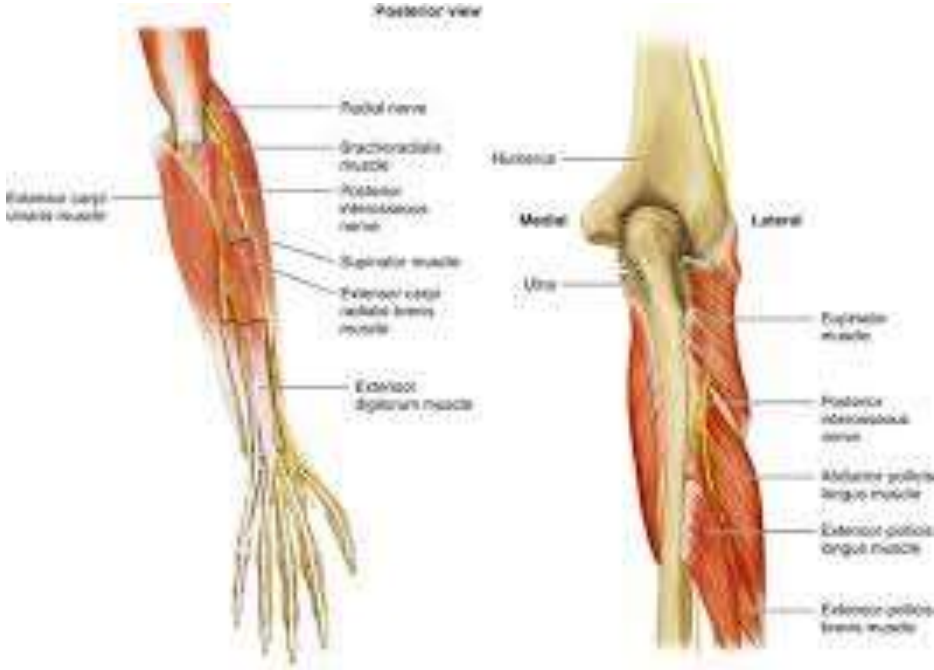
Radial nerve

- It is continuation of poster cord (C5-T1)
- Motor: supply(triceps m.), elbow extension, (brachialis m., brachioradialis m., extensor carpiradialis longus m.), wrist & fingers extention
- Sensory: supply posterior arm& hand



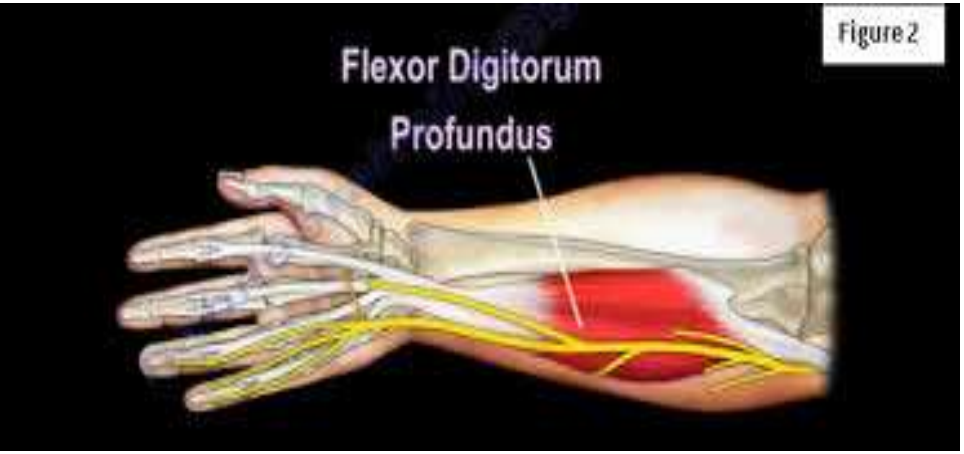
Median nerve

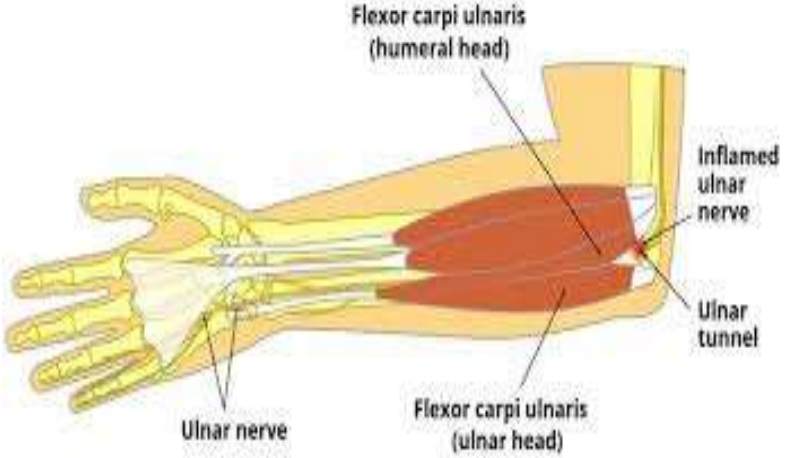
- Origin from medial& lateral cord(C6-T1),
- Motor: flexor muscles in forearm, head of flexor digiturum profundus m. .wrist& fingers flexion, thumb abduction .
- Sensory: palm of hand



Ulnar nerve

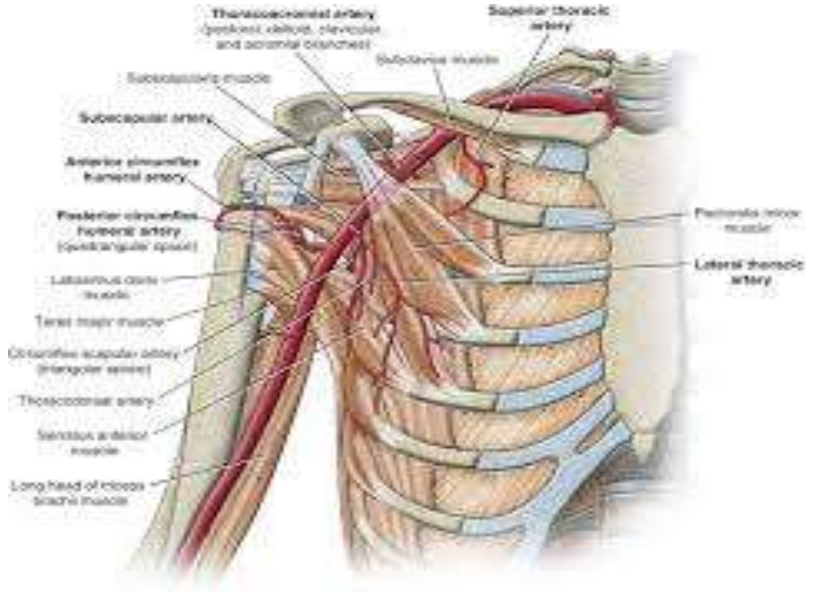
- Originate from(C7-T1)
- Motor: supply(flexor carpi ulnars m.& flexor digitorum profundus m.& intrinsic ms. Of hand), fingers abduction& adduction
- Sensory: 4^{th}&5^{th} fingers





Blood vessels in upper limb

- 1. Subclavian art.(SCA)
- Rt.(SCA) ,arise from brachiocephalic trunk.
- Lt. (SCA), arise from aortic arch.
- It continue as (axillary art.) beyond outer border of 1st. Rib



Arterial supply in upper limb (continue)

The axillary art. Continue as (brachial art.) beyond teres major m.

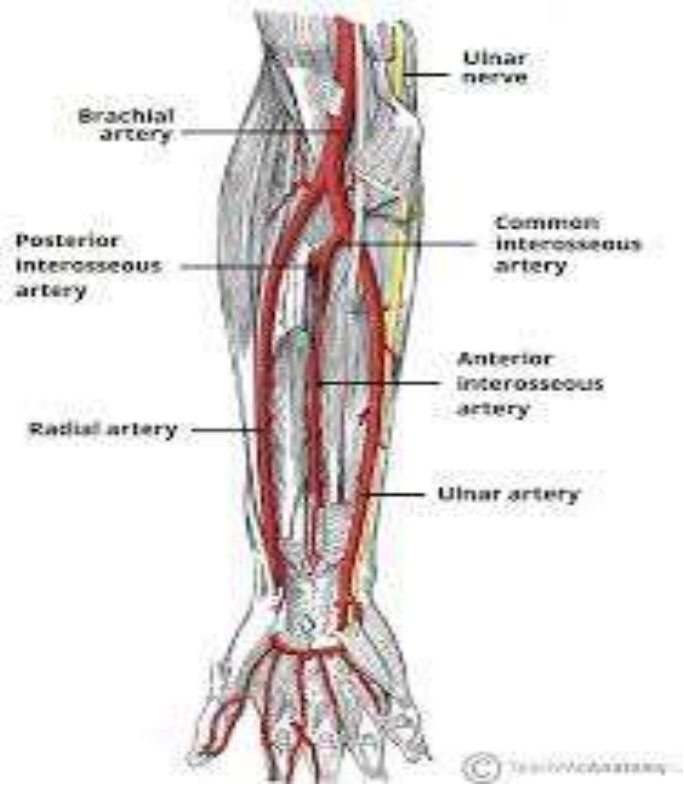
Brachial art. Divided into radial& ulnar arts.

Radial art. Terminate in hand

Into 3 branches.

Ulnar art. Terminate in hand

Into 2 branches



THANK YOU!