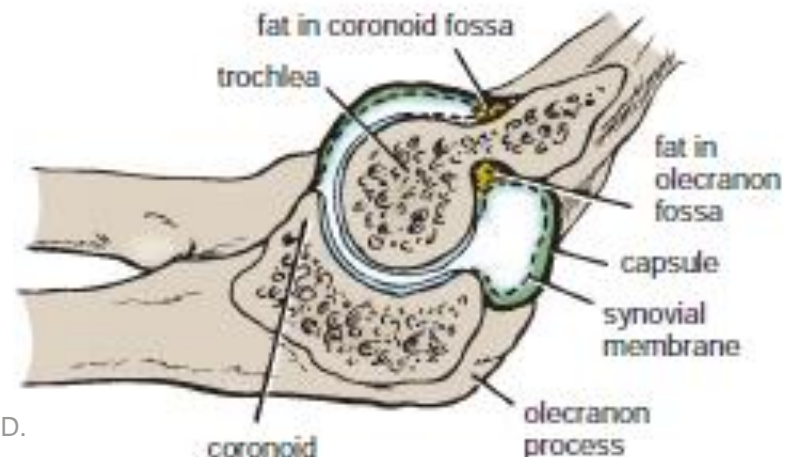
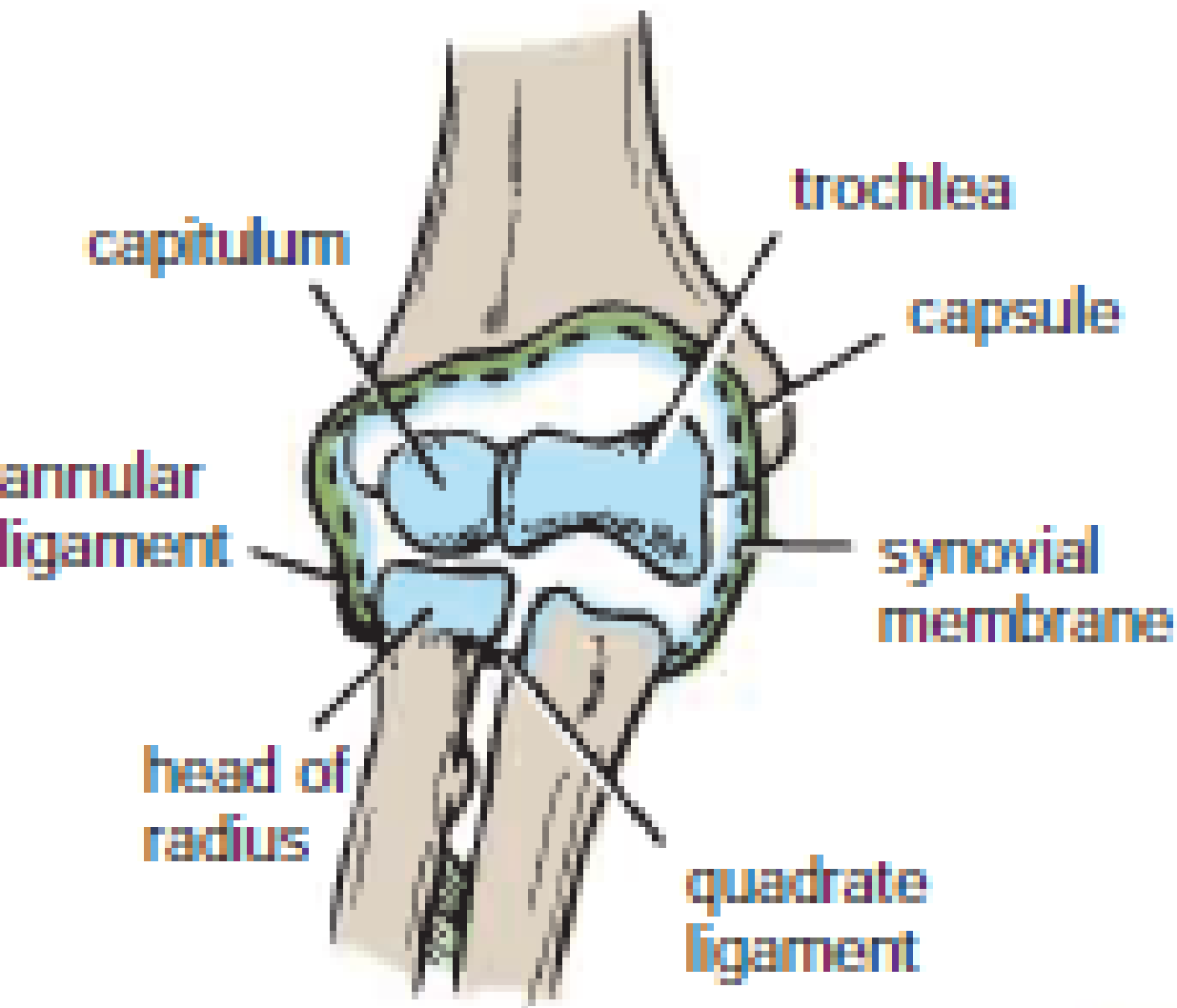


ANATOMY OF THE ARM



FASCIAL COMPARTMENTS OF THE UPPER ARM

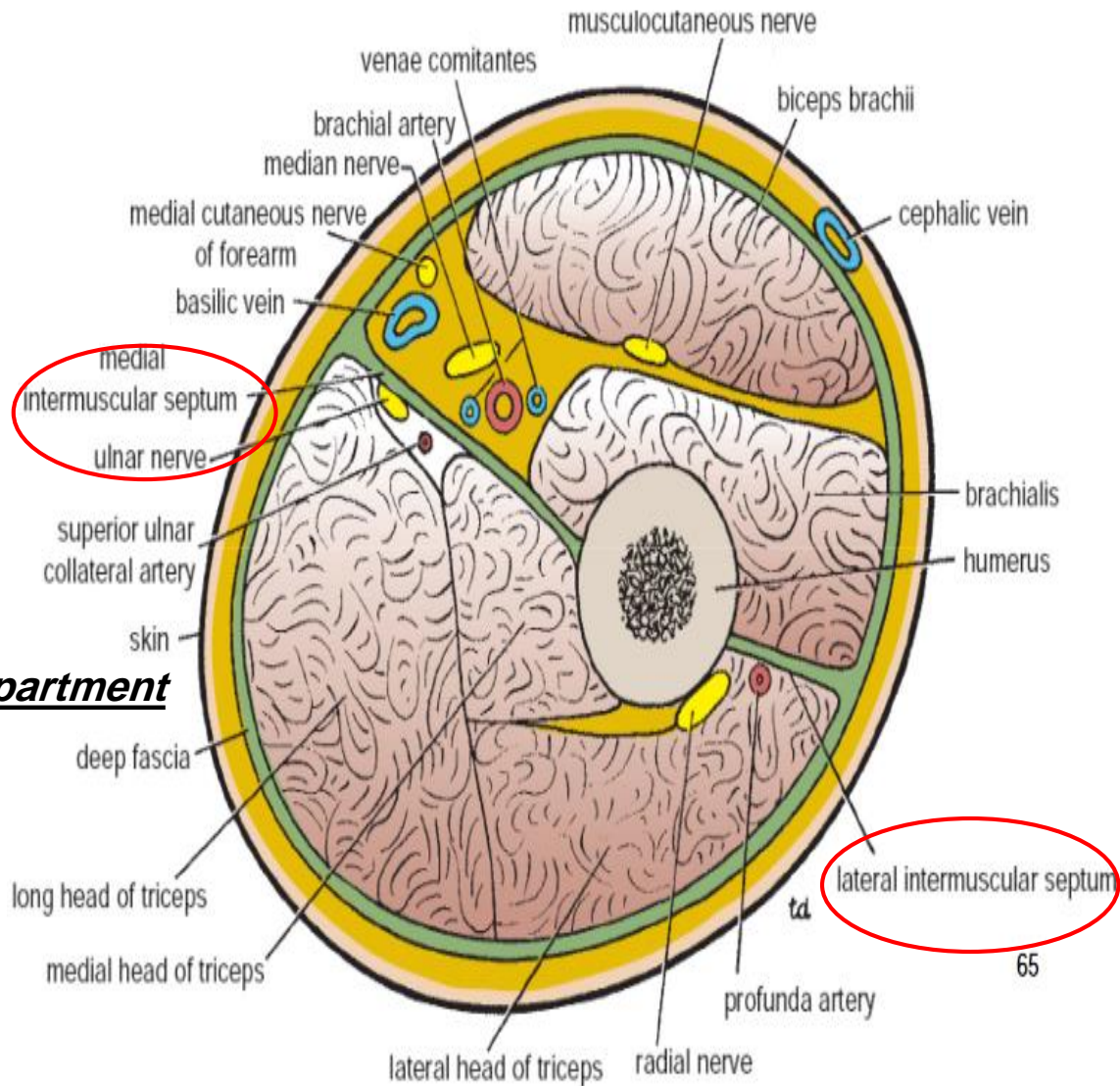
Fascial Compartments of the Upper Arm

The upper arm is enclosed in a sheath of deep fascia and has two fascial septa:

- 1- **Medial fascial septum**
(medial intermuscular septum)
- 2- **Lateral fascial septum**
(lateral intermuscular septum)



They divided the upper arm into: **anterior and a posterior fascial compartment**



Muscles of the Anterior Fascial Compartment of the Upper arm

Muscles:

1. Biceps brachii
2. Brachialis
3. Coracobrachialis

BBC group

Blood supply: Brachial artery

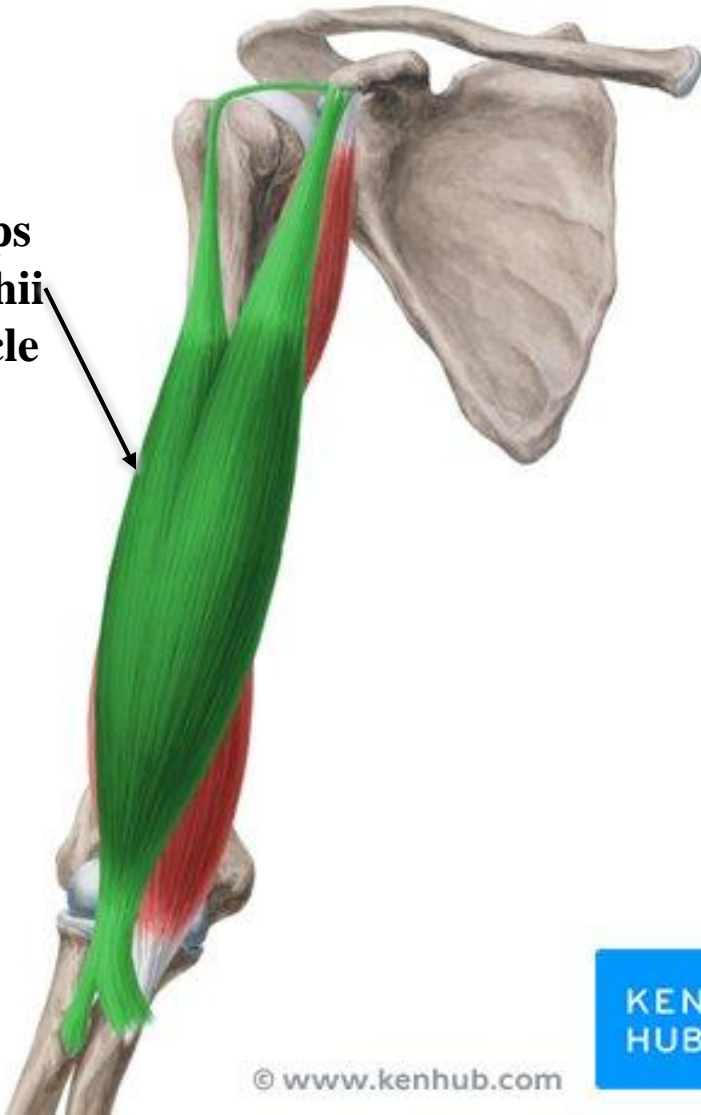
Nerve supply to the muscles: Musculocutaneous nerve

Structures passing through the compartment:

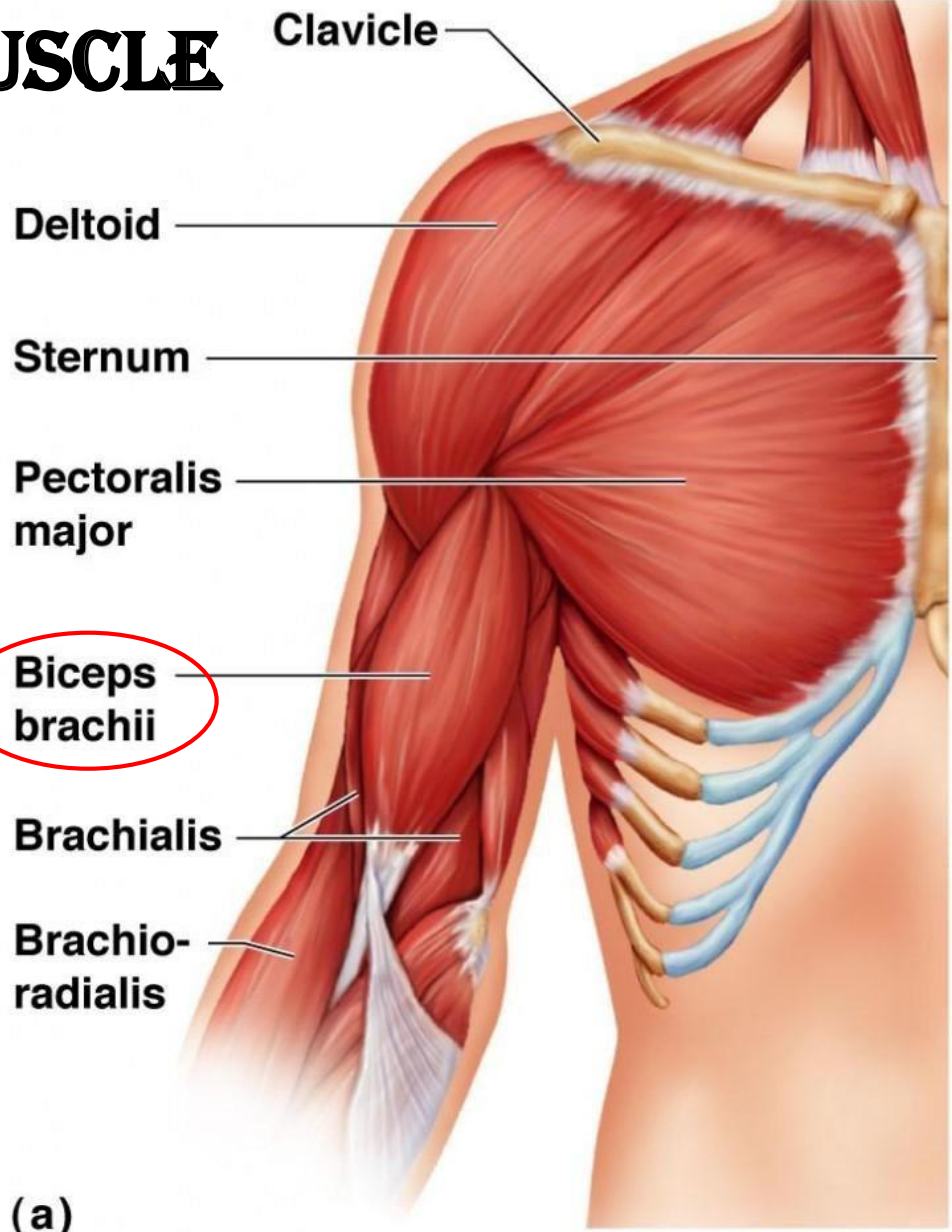
1. Musculocutaneous nerve
2. Median nerve
3. ulnar nerve
4. Brachial artery
5. basilic vein
6. The radial nerve is present in the lower part of the compartment.

1 – BICEPS BRACHII MUSCLE

Biceps
brachii
muscle



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(a)

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It has two heads; long and short

Coracoid process

**Origin of the long head:
Supraglenoid tubercle of
scapula**

Origins of
biceps brachii

**Origin of the short head:
Coracoid process of scapula**

Tendon of
long head

Tendon of
short head

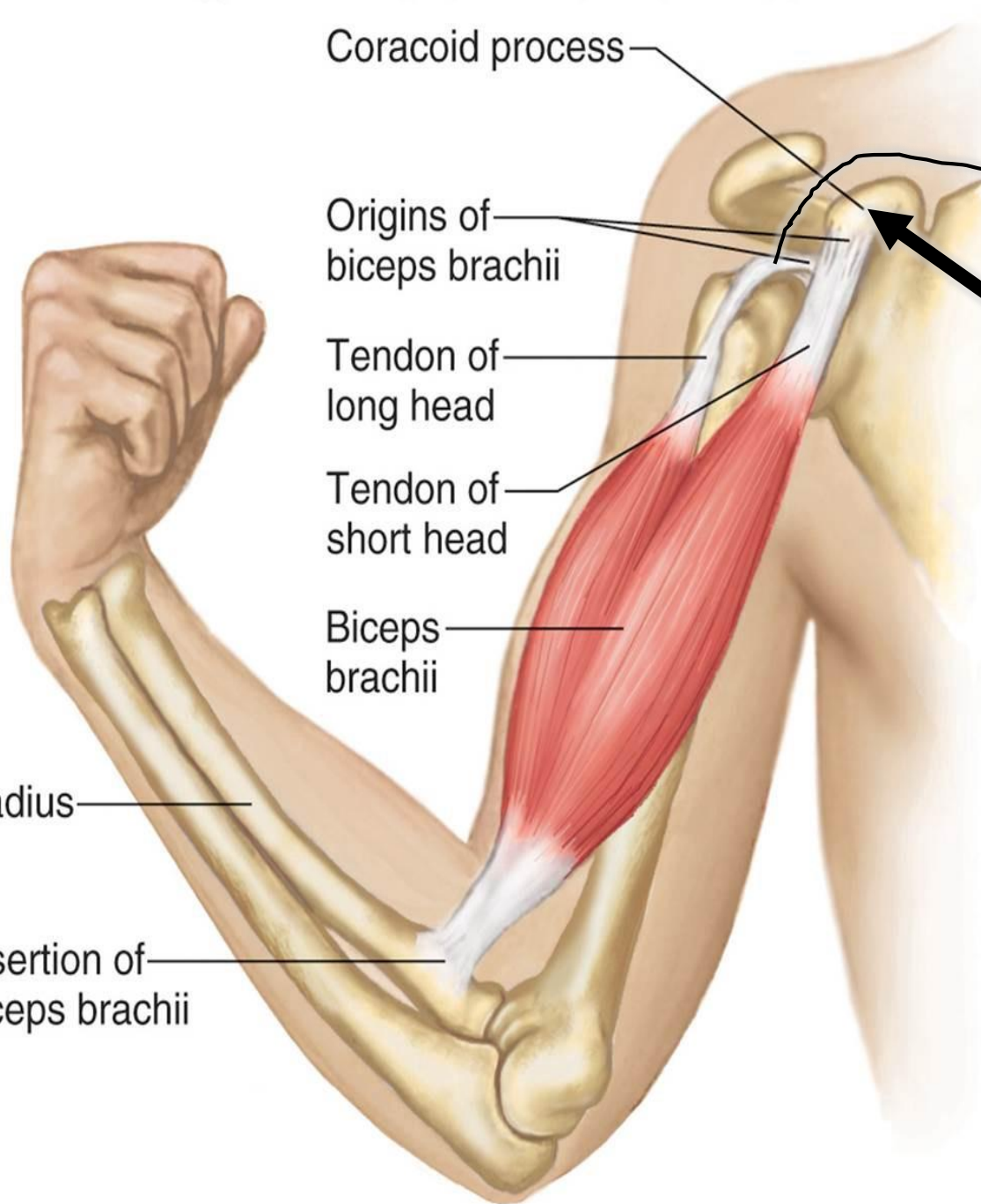
Biceps
brachii

NOTE

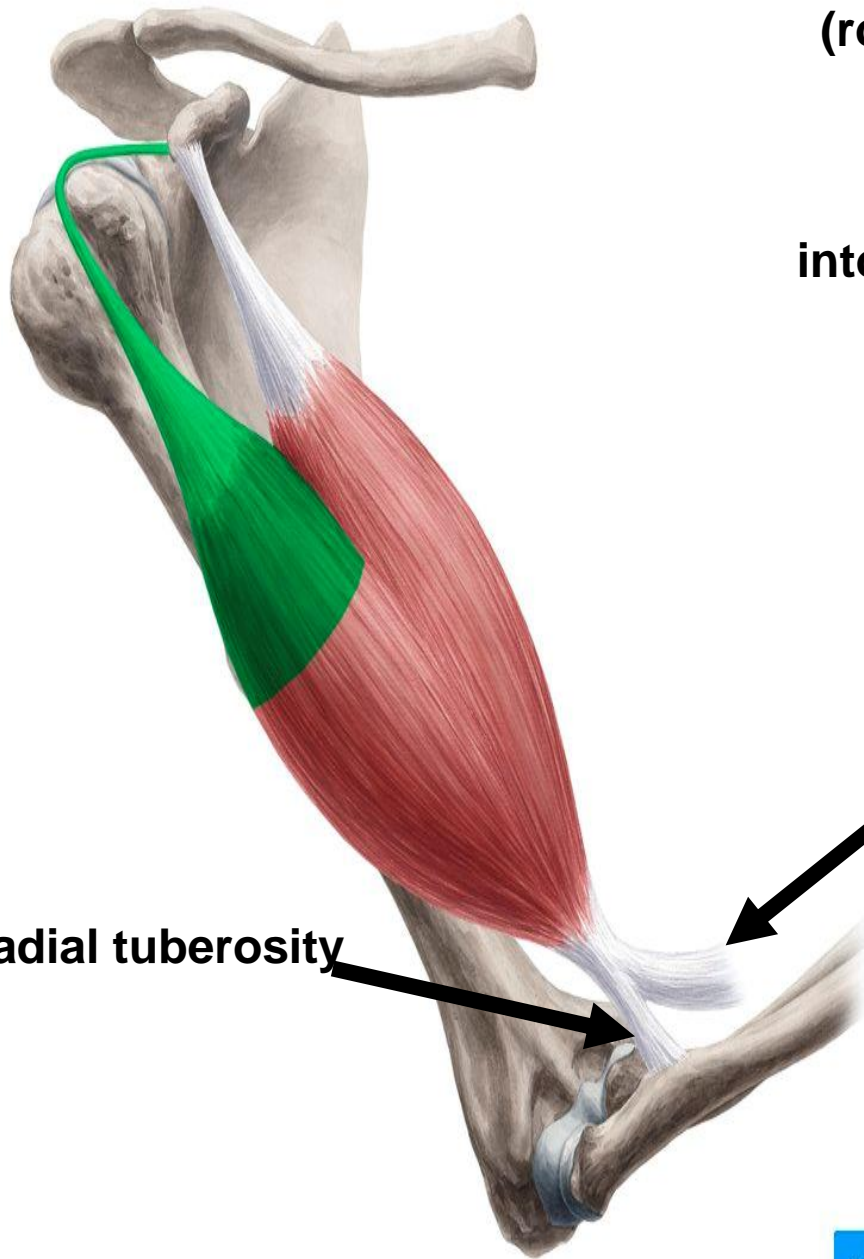
You may think that the short head is longer, however, you need to understand that part of the tendon of the long head is hidden by the capsule of the shoulder joint which make you think the that the tendon of the short head is loner which is not true.

Radius

Insertion of
biceps brachii



**Insertion: Radial tuberosity
(round tendon), the main
insertion
and
bicipital aponeurosis
into deep fascia of forearm**

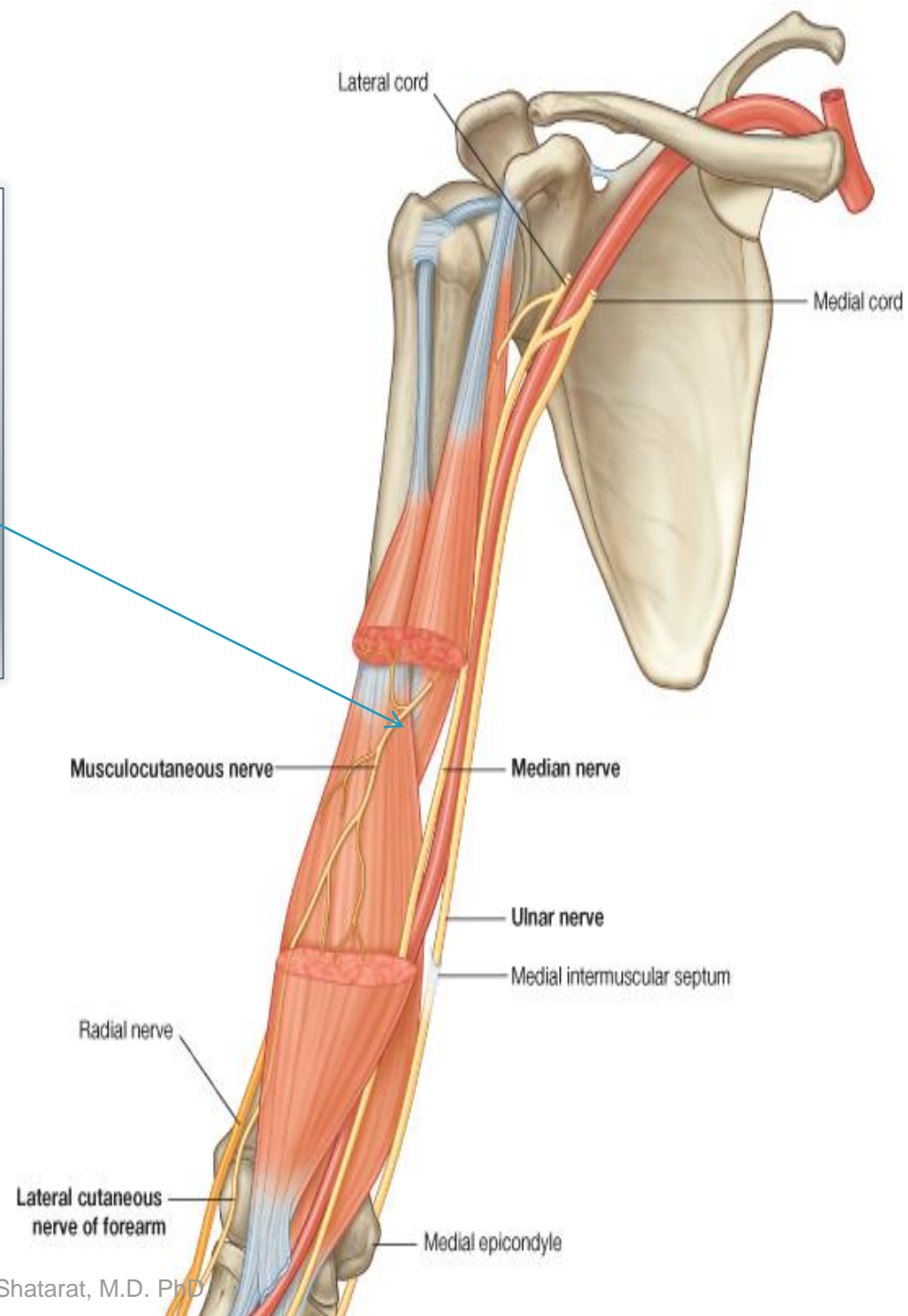


**bicipital aponeurosis
into deep fascia of forearm**

Radial tuberosity

**Action: Supinator of
Forearm (at the superior and
inferior radioulnar joints)
and strong flexor of elbow joint;
weak flexor of shoulder joint**

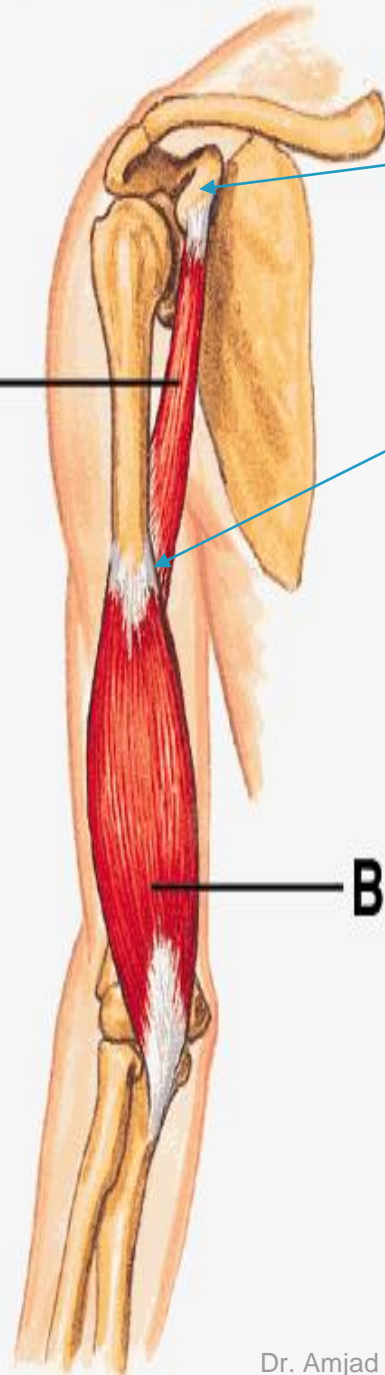
**The BBC group is
innervated by the
Musculocutaneous
nerve**



2-CORACOBRACHIALIS:

Coracobrachialis

**Anterior Arm
Muscles (3)**



Origin: Coracoid process of scapula

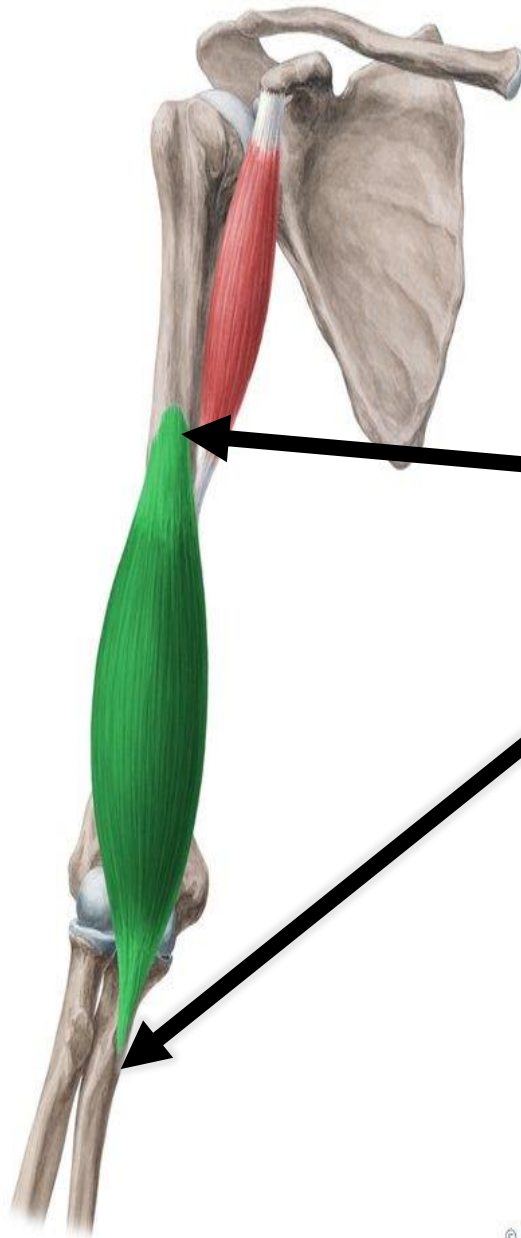
Insertion: Medial aspect of shaft of humerus

NS: Musculocutaneous nerve

Action: Flexes arm and also weak adductor

Brachialis

3. Brachialis



Origin: Front of lower half of humerus

Insertion: Coronoid process of ulna

NS: Musculocutaneous nerve

Action: Flexor of elbow joint

MUSCULOCUTANEOUS NERVE

C 5, 6, 7

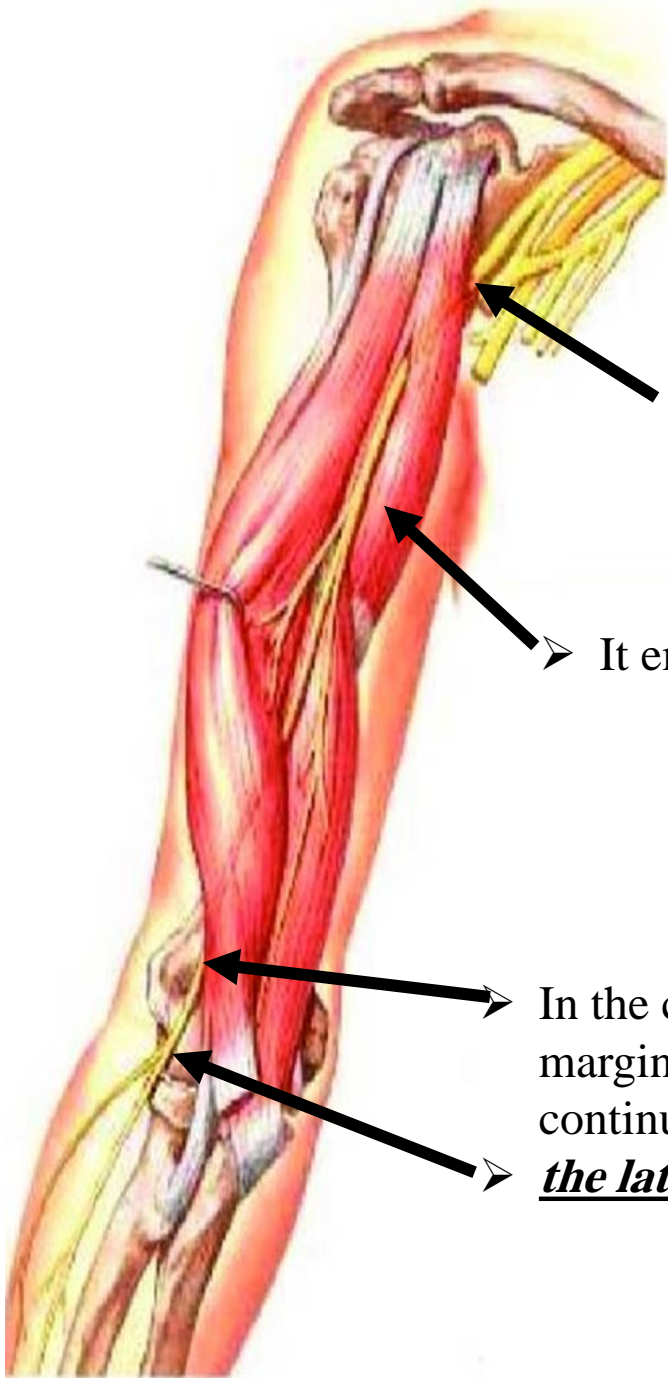
➤ It is the nerve of the anterior compartment of the arm

➤ It passes through coracobrachialis

➤ It emerges to pass between biceps and brachialis

➤ In the cubital fossa it lies at the lateral margin of the biceps tendon where it continues as

➤ the lateral cutaneous nerve of the forearm



Contents of the Posterior Fascial Compartment of the upper arm

Muscles: The three heads of the triceps muscle:

Long head

Lateral head

Medial head

Blood supply:

1. Profunda brachii

2. Ulnar collateral arteries

Nerve supply to the muscles: Radial nerve

Structures passing through the compartment:

1. Radial nerve

2. ulnar nerve

Muscle of the Posterior Fascial Compartment of the Upper arm

1. TRICEPS BRACHII:

A. Origin of long head:

Infraglenoid tubercle of scapula

B. Origin of lateral head: Upper half of posterior surface of shaft of humerus

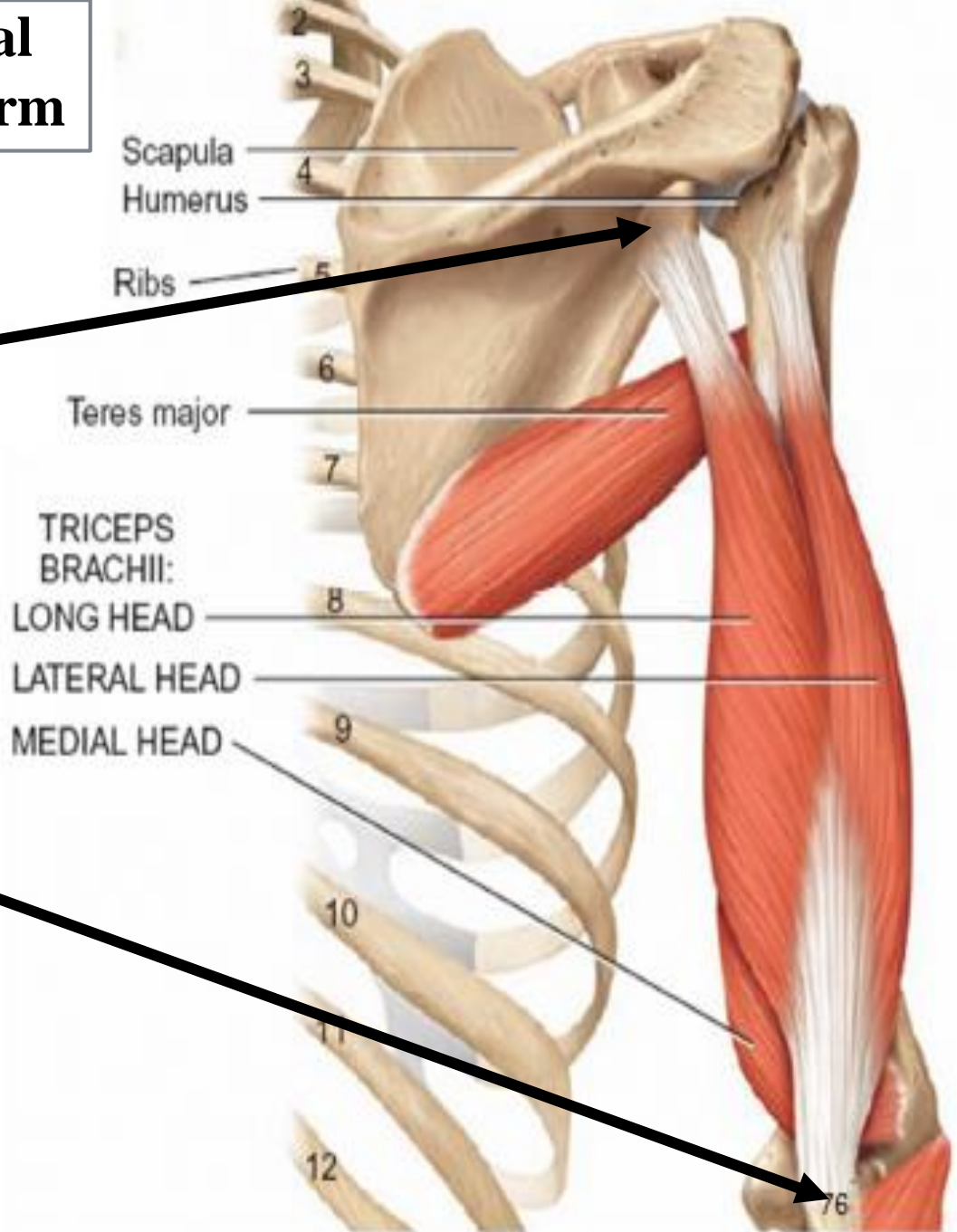
C. Origin of medial head: Lower half of posterior surface of shaft of humerus

Insertion:

Olecranon process of ulna

NS: Radial nerve

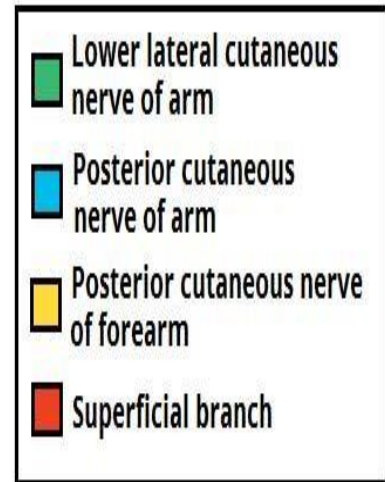
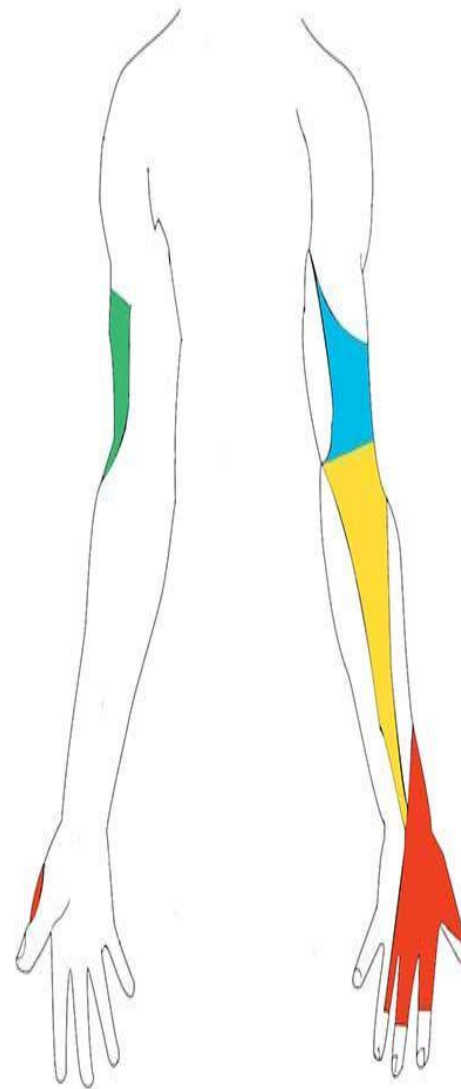
Action: Extensor of elbow joint, and the long head of the triceps acts on the shoulder joint as an adductor of the arm.



RADIAL NERVE AND IT'S BRANCHES:

A. In the axilla:

- **Motor (muscular branches) to Long and medial heads of the triceps**
- **Sensory (cutaneous) Posterior cutaneous nerve of the arm**



B) In the spiral groove (radial):

Posterior view

- It gives muscular branches to the **Lateral and medial** heads of the triceps and to the **anconeus**.

- Sensory nerves**
 - The lower lateral cutaneous nerve of the arm**
 - The posterior cutaneous nerve of the forearm**

Teres major muscle

Axillary nerve

Posterior brachial nerve

Lateral head of triceps brachii muscle (cut)

Lateral head of triceps brachii muscle (cut)

➤ The posterior cutaneous nerve of the forearm

Posterior

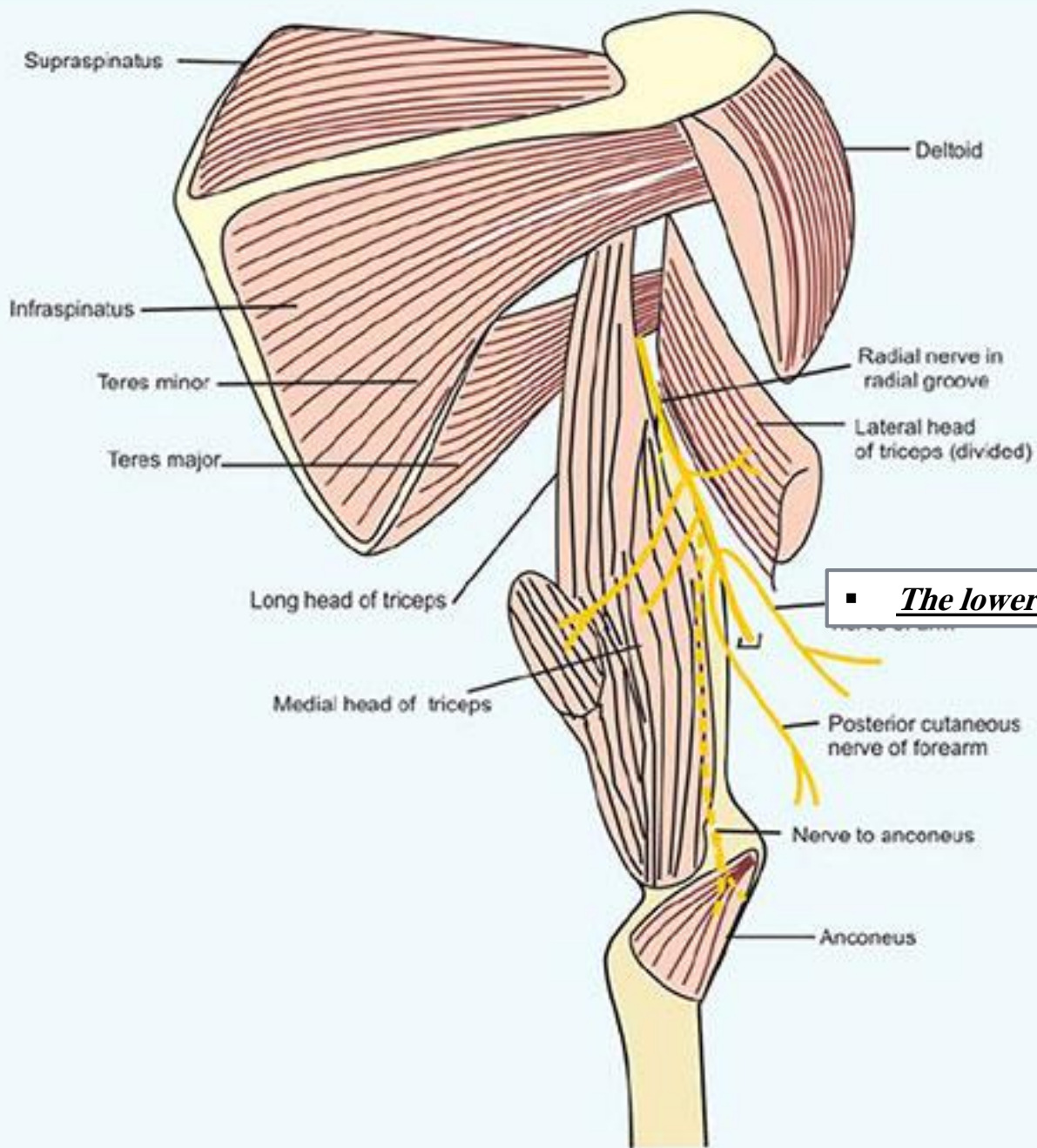
Greater tubercle

Surgical neck

Groove for radial nerve

Olecranon fossa

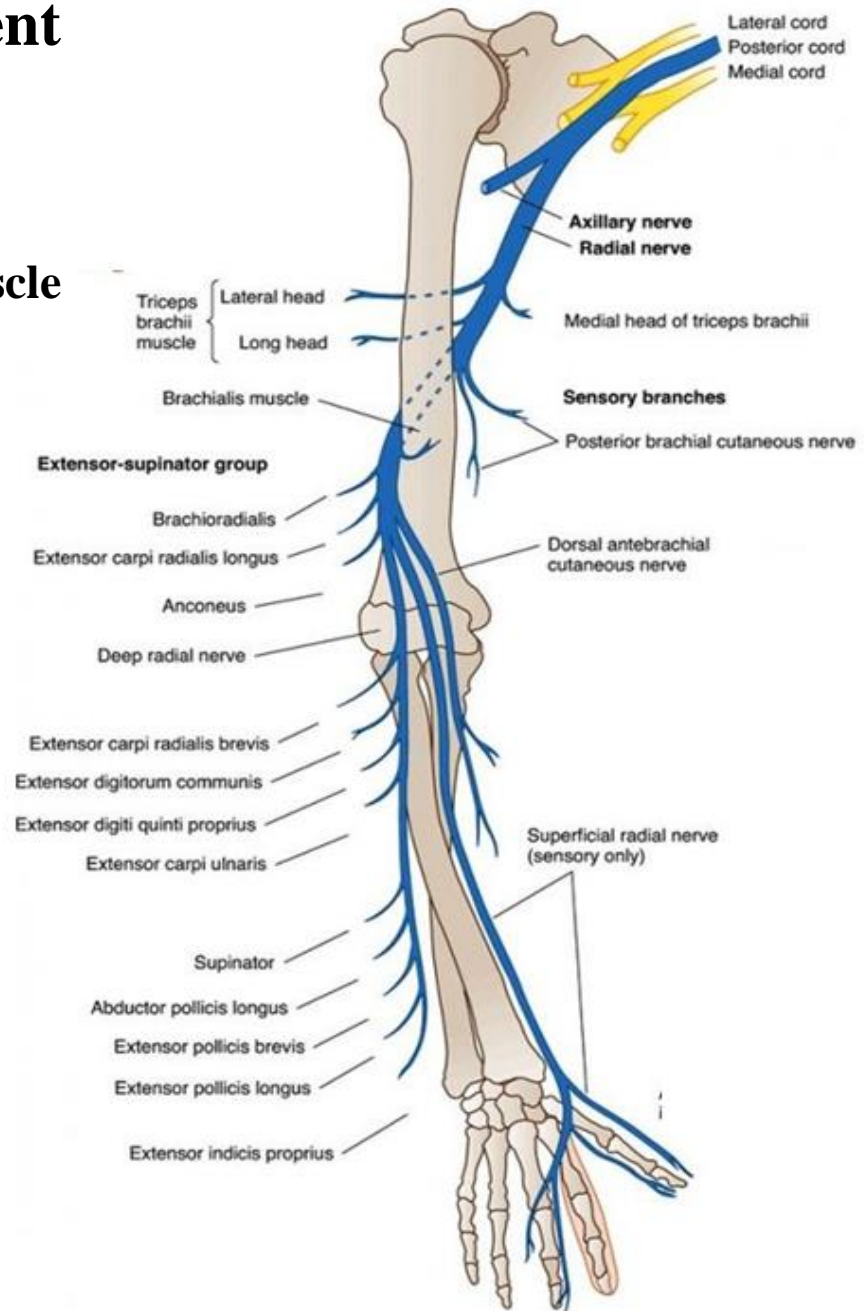
Lateral epicondyle



▪ ***The lower lateral cutaneous nerve of the arm***

C) In the anterior compartment of the arm:

- The brachialis muscle
- the brachioradialis muscle
- the extensor carpi radialis longus muscle
- Articular branches to the elbow joint



BRACHIAL ARTERY

Begins:

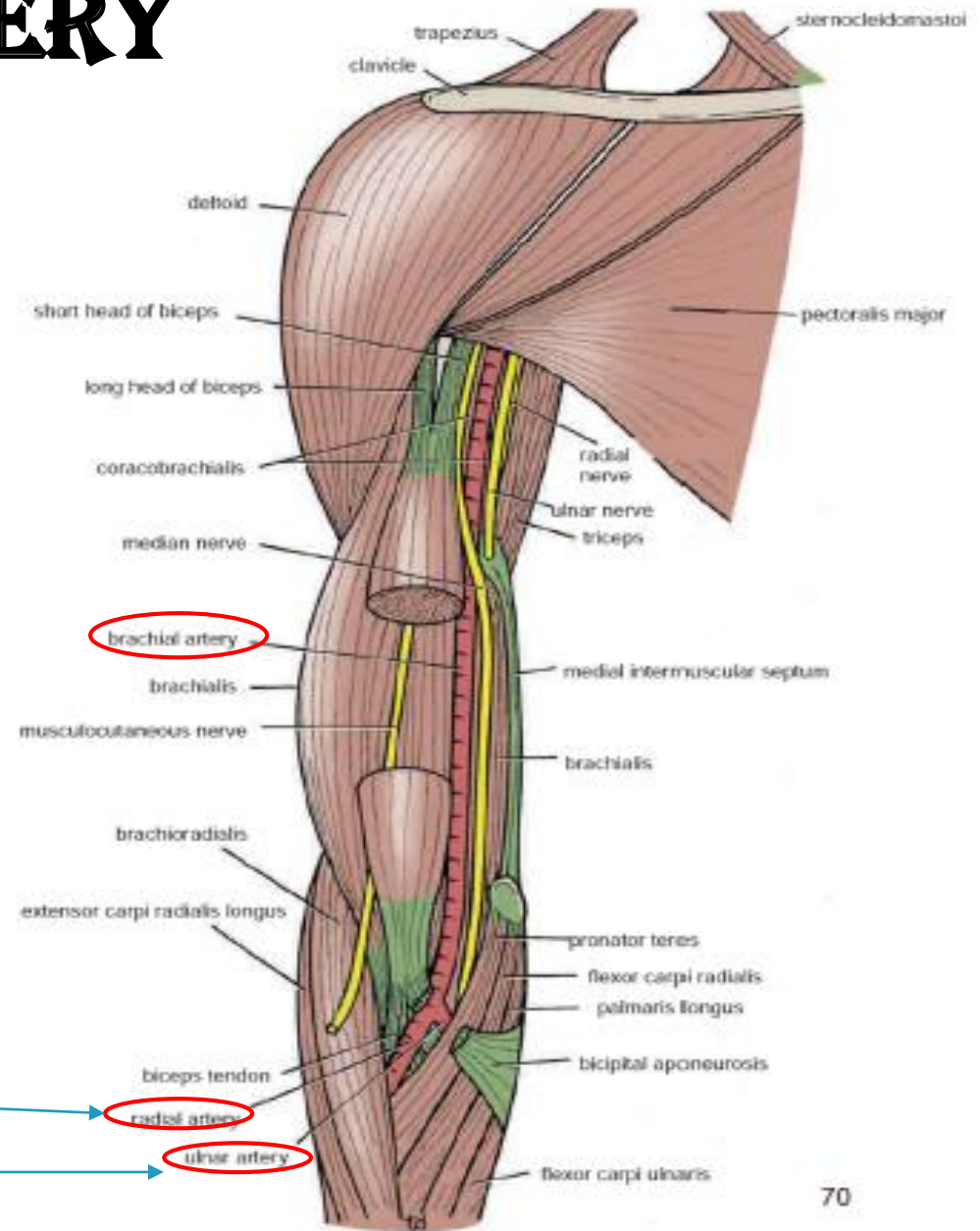
at the lower border of the teres major muscle as the continuation of the axillary artery

Terminates:

opposite the neck of the radius by dividing into:

1-The radial artery

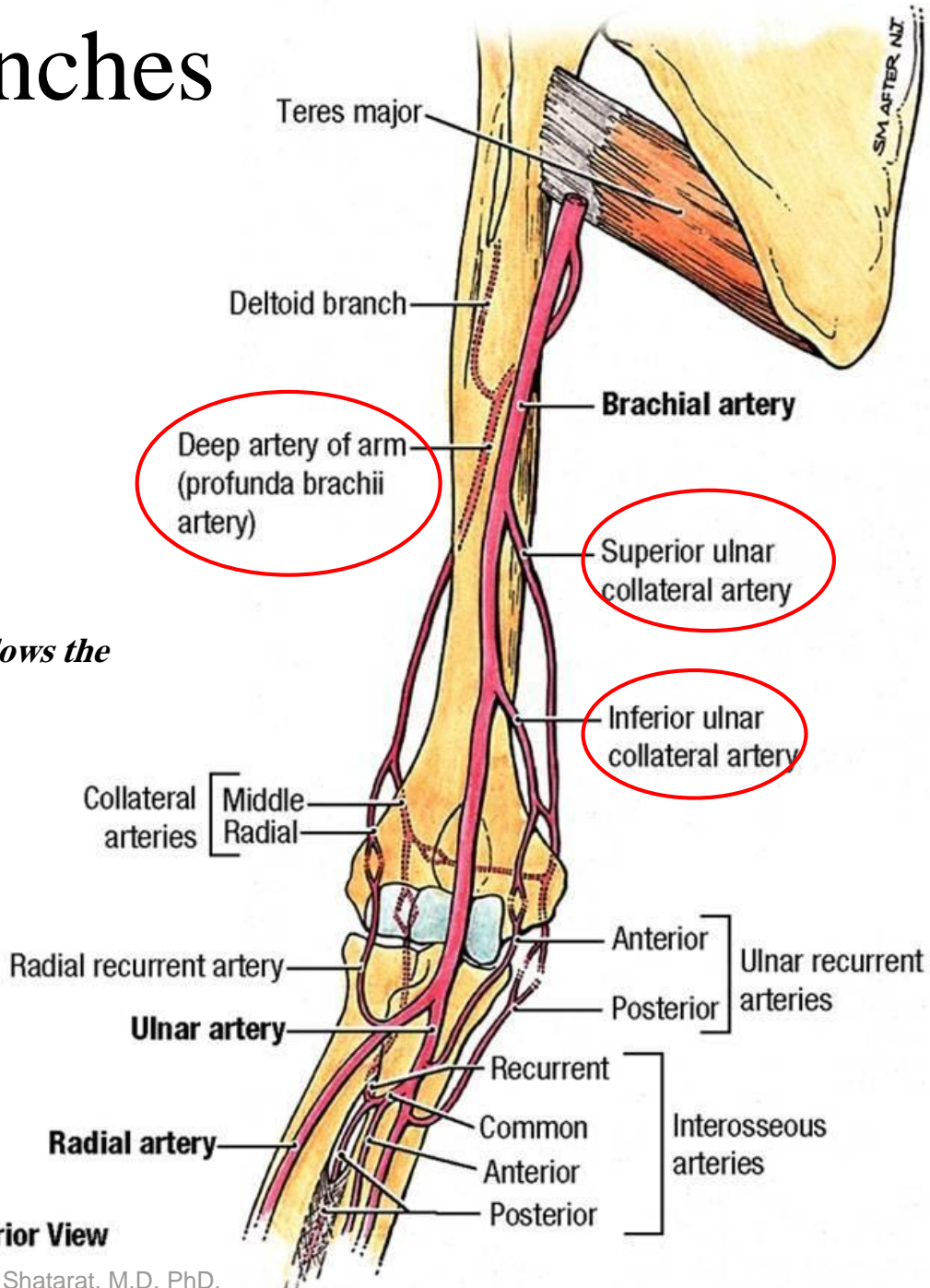
2-The ulnar artery



Brachial Artery Branches

Muscular branches to the anterior compartment of the upper arm

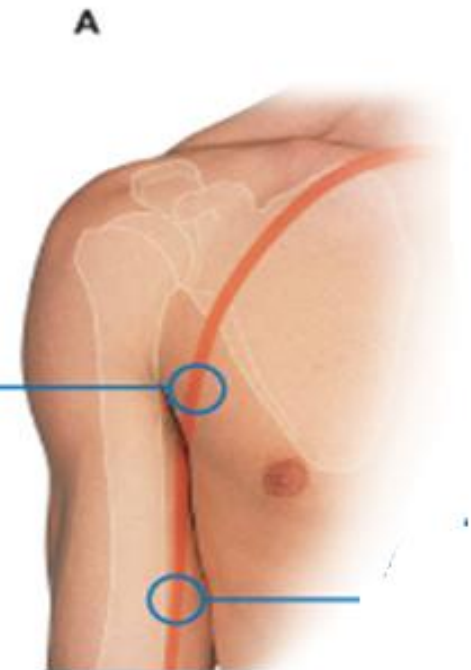
- 1. The nutrient artery:**
to the humerus
- 2. The profunda artery:**
arises near the beginning of the brachial artery and follows the radial nerve into the spiral groove of the humerus
- 3. The superior ulnar collateral artery:**
arises near the middle of the upper arm and follows the ulnar nerve
- 4. The inferior ulnar collateral artery:**
arises near the termination of the artery a



Anterior View

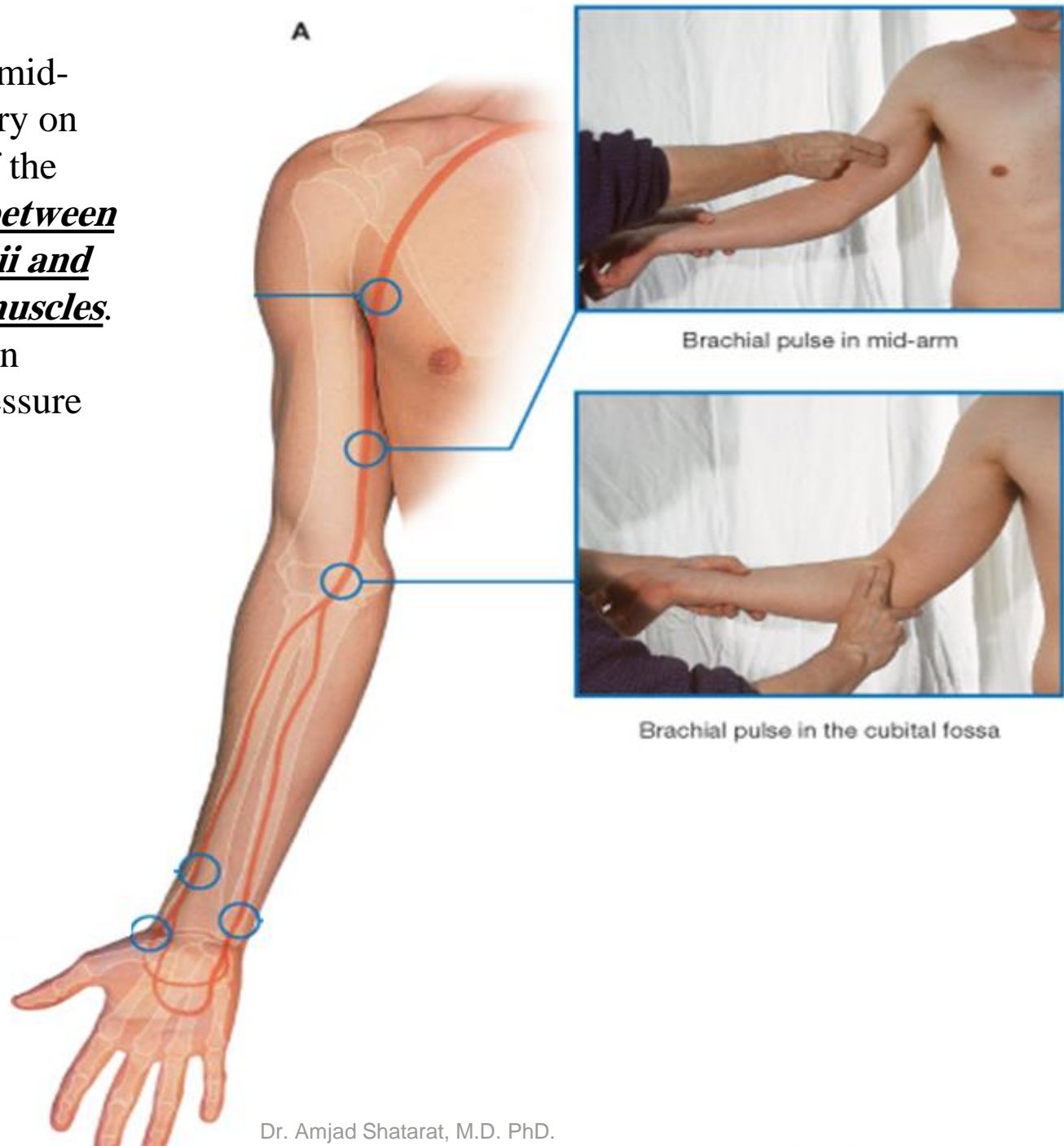


Axillary pulse



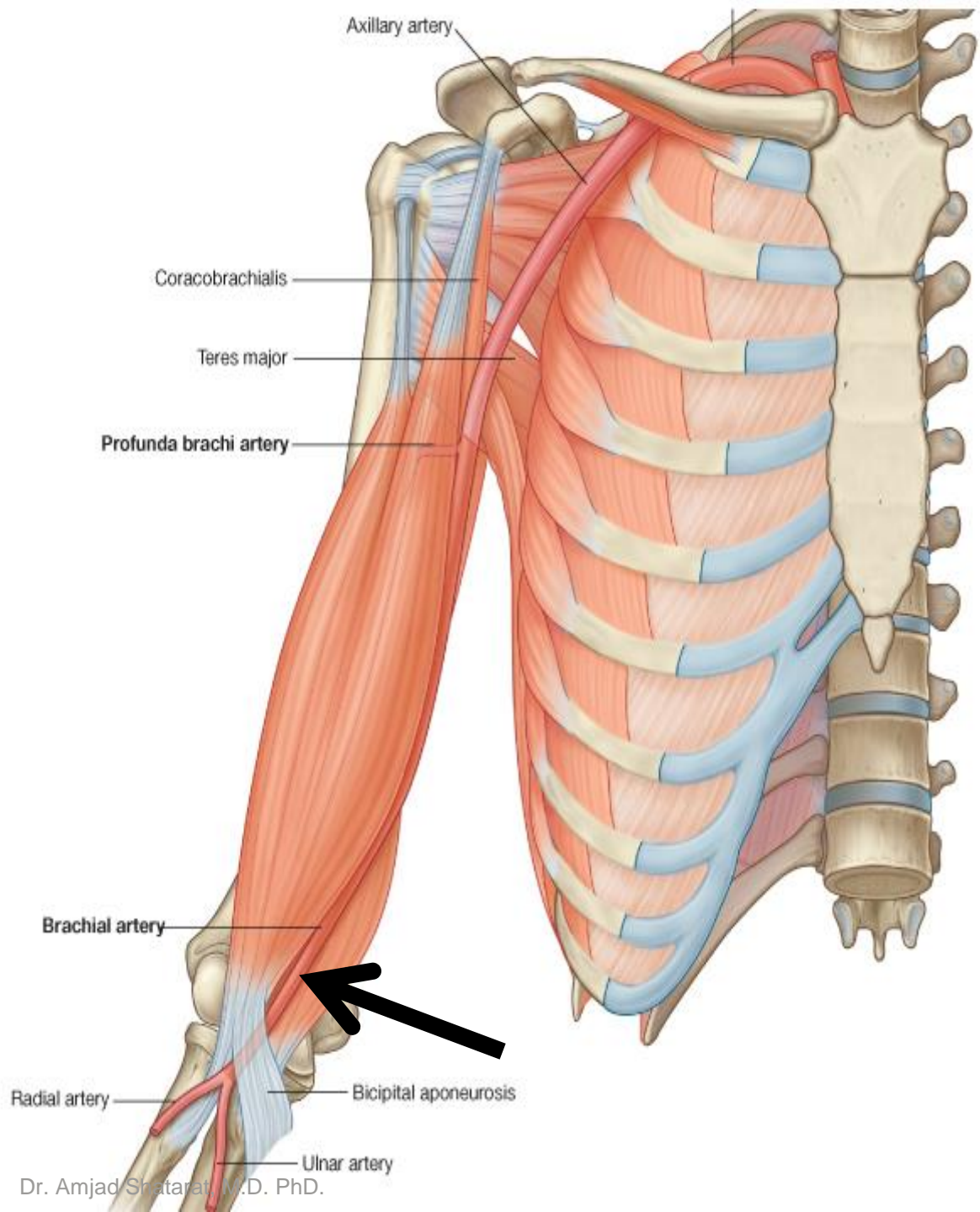
❖ Axillary pulse: axillary artery in the axilla lateral to the apex of the dome of skin covering the floor of the axilla

- ❖ Brachial pulse in mid-arm: brachial artery on the medial side of the arm **in the cleft between the biceps brachii and triceps brachii muscles.** This is the position where a blood pressure cuff is placed



Brachial pulse in the cubital fossa:
brachial artery **medial to the**
tendon of the biceps
brachii muscle

**Remember that you can
feel the
Pulse there**





- ❖ Brachial pulse in the cubital fossa: brachial artery **medial to the tendon of the biceps brachii muscle**. This is the position where a stethoscope is placed to hear the pulse of the vessel when taking a blood pressure reading