## Arm

The arm is the region between the shoulder and the elbow.

>It contains a single bone, the humerus.

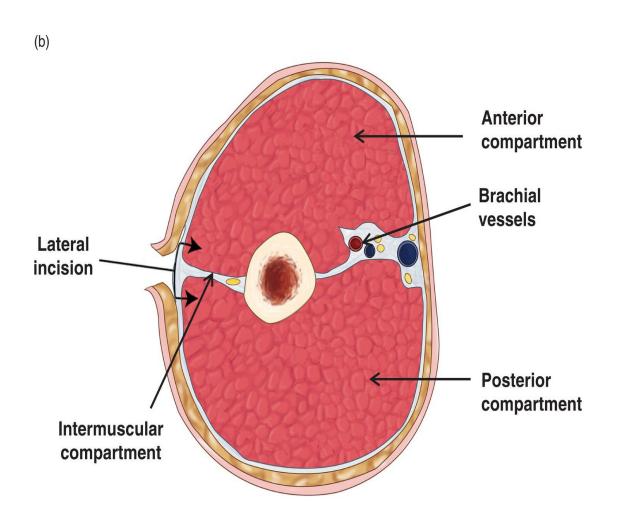
The humerus provide attachments to some muscles of the shoulder which act on the elbow joint.

## **SURFACE LANDMARKS**

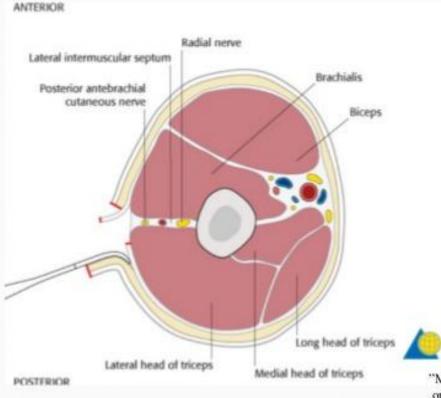
- Greater tubercle of the humerus
- Shaft of the humerus
- Medial epicondyle of the humerus
- Lateral epicondyle of the humerus
- Medial and lateral supracondylar ridges
- Deltoid
- Coracobrachialis
- Biceps muscle

- Brachial artery
- Ulnar nerve
- Superficial cubital vein

The arm is subdivided clearly into 2 compartments (anterior and posterior) by extension of deep fascia which are called the medial and the lateral intermuscular septa



# 2 Compartments of arm



#### 1. Anterior

- Biceps, Bracialis
- Musculocutaneous n.
- 3. Brachial a.
- 2. Posterior
  - 1. Triceps
  - 2. Radial n.

"Mark Karafsheh.MD, "Compartment Syndrome on www.Orthobullets.com, Havard university, 2013 20

- The anterior compartment contains the flexors and is called the flexor compartment of the arm. The posterior compartment contains the extensor muscles and is called the extensor compartment of the arm.
- ➤ 2 intermuscular septa are given out from the deep surface of the brachial fascia and get attached to medial and lateral aspect of the humerus.

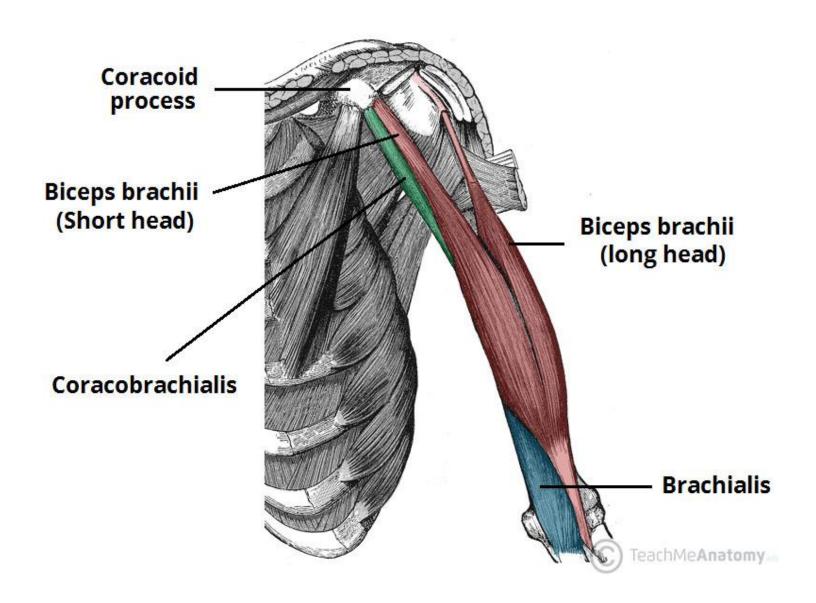
- The medial intermuscular septum is thicker;
- ➤Its humeral attachment, from above downwards, runs along the medial lip of the intertubercular sulcus, the medial supracondylar ridge and the medial epicondyle.

>The humeral attachment of the lateral intermuscular septum runs from the lateral lip of the intertubercular sulcus, the lateral supracondylar ridge and the lateral epicondyle.

#### Anterior compartment of arm-

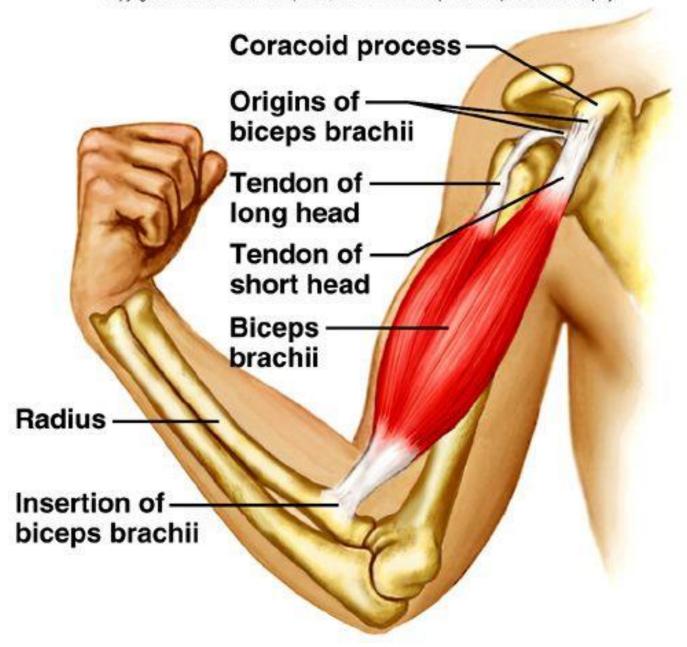
➤ The anterior compartment of arm lies in front of the humerus

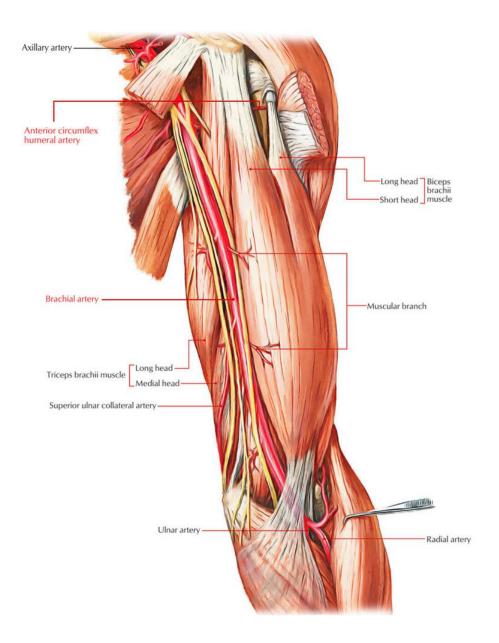
The total 3 muscles of the arm, – coracobrachialis, biceps brachii and brachialis.



## Biceps brachii

- > ORIGINE
  - LONG HEAD Supraglenoid tubercle Short head- tip of coracoid process
- > INSERTION Tuberosity of radius
- > Nerve supply- musculocutaneous nerve(c5, c6)
- > Action-
- 1. flexion of arm at shoulder joint(short head)
- 2. Long head keeps head of humerus in place during movements of the arm.
- 3. Flexion of forearm (at elbow)
- 4. Supination of forearm)





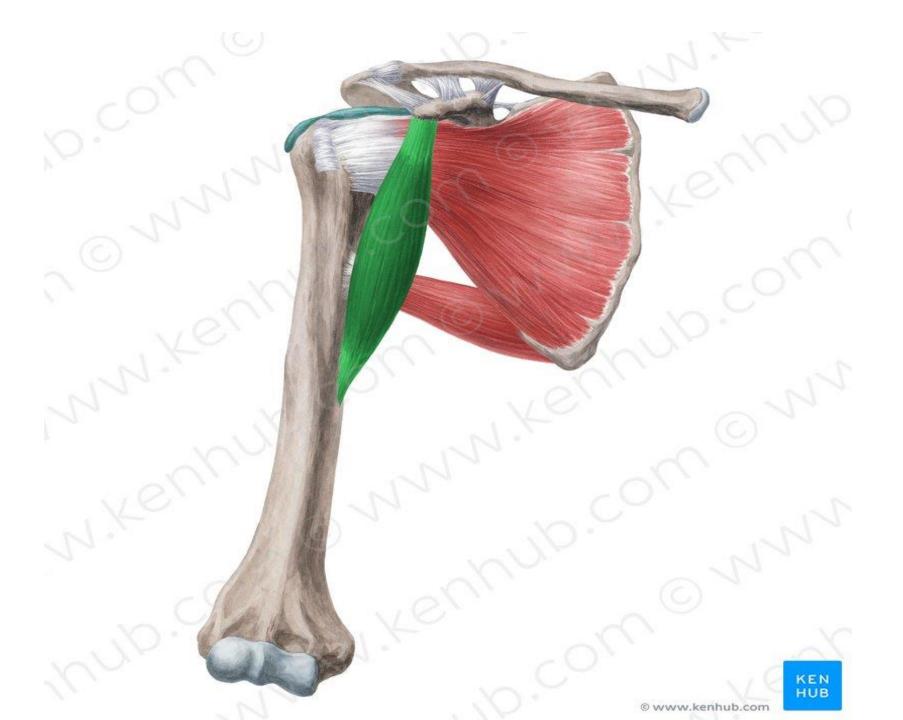
## Coracobrachialis

Origin- Tip of coracoid process

Insertion – Medial border of humerus (middle of shaft)

Nerve supply- Musculocutenous nerve

**Action – Flexion of arm** 



## **Brachialis**

#### Origin-

Lower half of humerous anreomedial and anreolateral Surface

**Inerstion-**

Anterior surface of coronoid process

Nerve supply-

Musculocutaneous nerve(c5,6)

Radial nerve(c7)

**Action-**

Flexor of forearm at elbow joint



#### POSTERIOR COMPARTMENT OF ARM

## Triceps brachii muscle

Origin

Long head-Infraglenoid tubercle

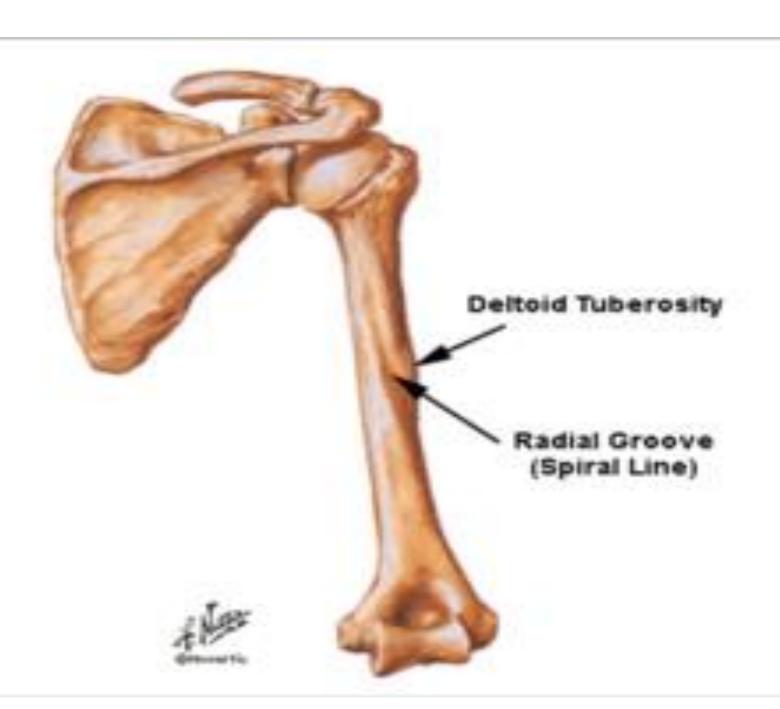
Lateral head- above the radial groove

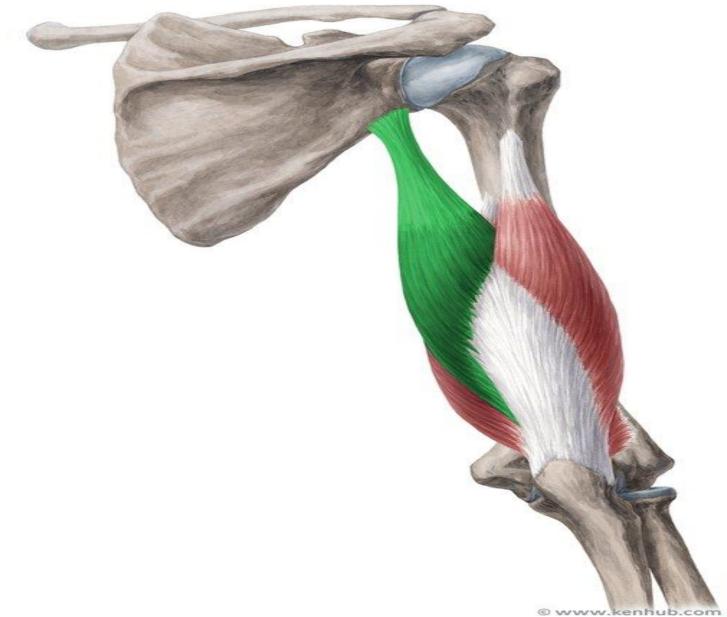
Medial head-below the radial groove

**Insertion-** superior surface of olecranon process

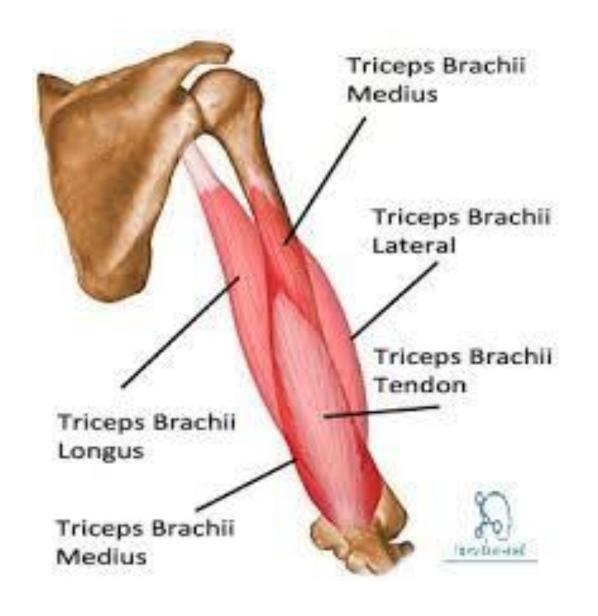
N.S.- radial nerve(c7,c8).

Action- powerful active extensor of the elbow.





KEN HUB



#### Fasciae of the arm-

- 1. Superficial fascia
- 2. Deep fascia of the arm is called the brachial fascia.

It forms a continuous sleeve around the muscles and deeper contents of the arm.