

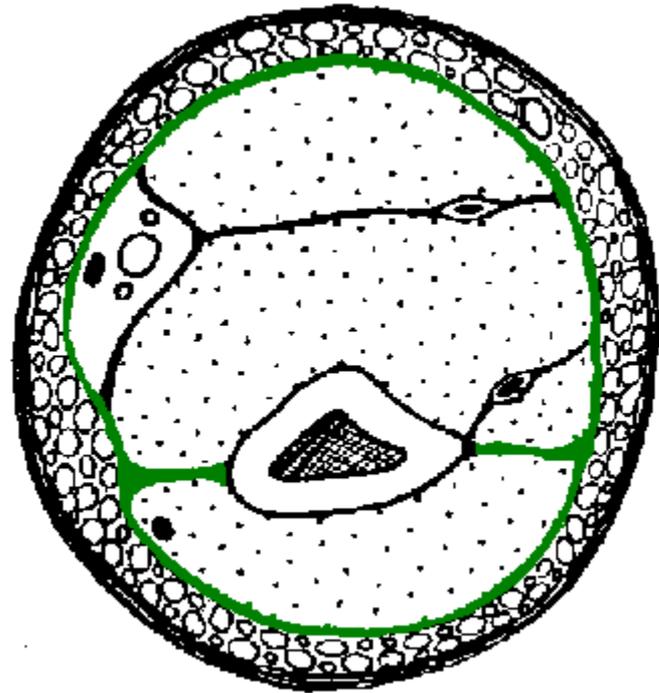
The Arm

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Medical Rehabilitation and Physiotherapy

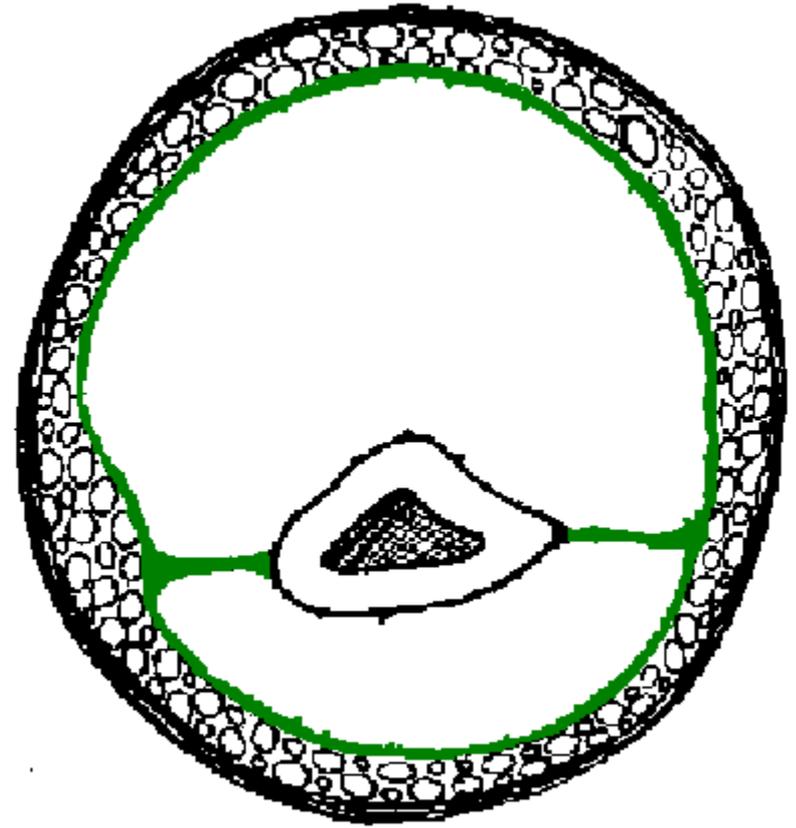
Fascia

The arm is enclosed in a sheath of deep fascia from which two fascial intermuscular septa extend to the medial and lateral supracondylar ridges of the humerus



Compartments

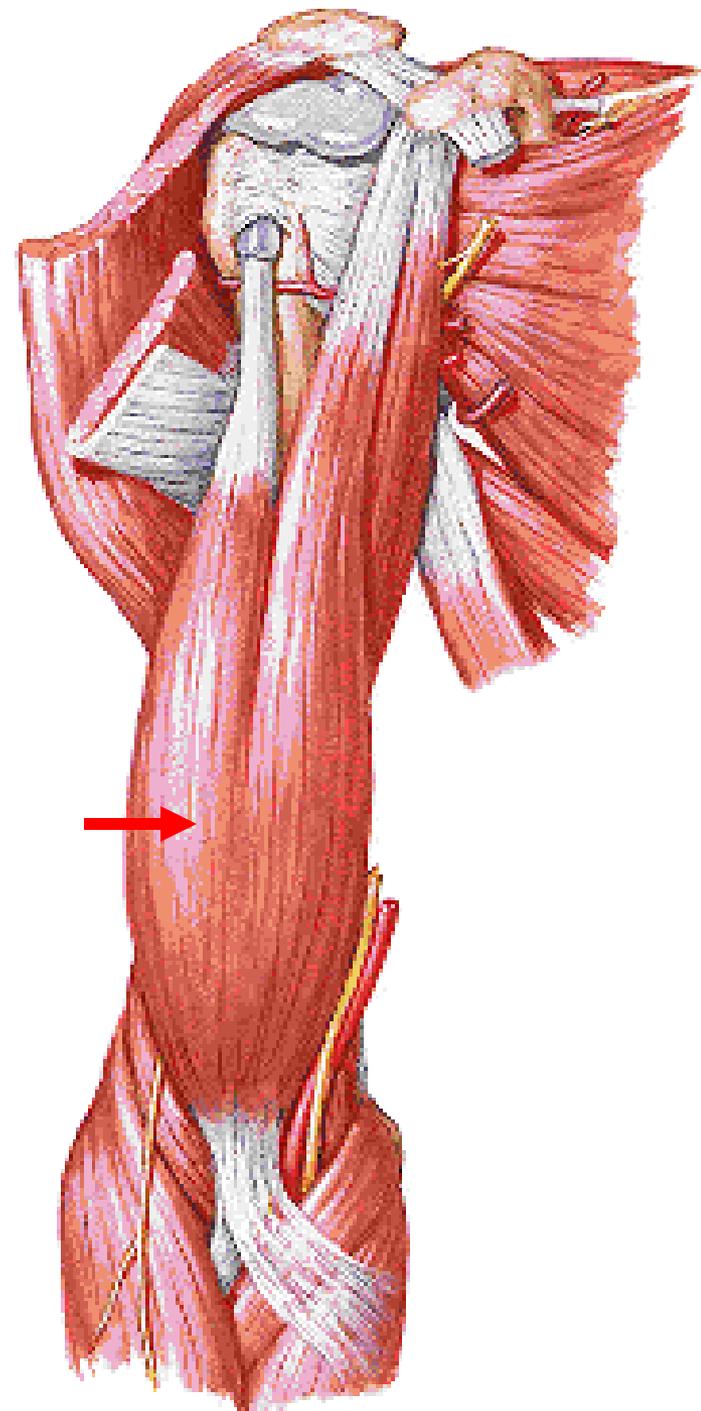
The medial and lateral intermuscular septa divide the arm into anterior and posterior fascial compartments.



Anterior compartment

contains three muscles

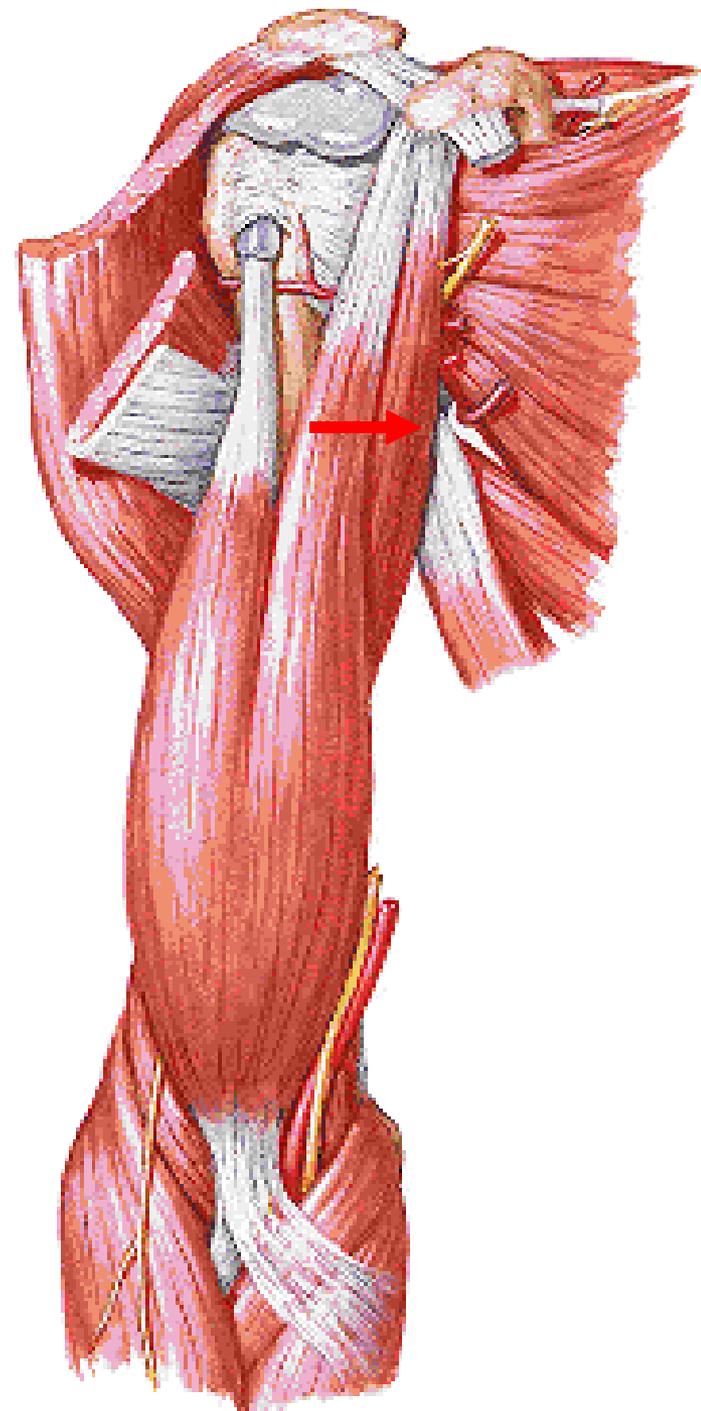
Biceps brachii



Anterior compartment

contains three muscles

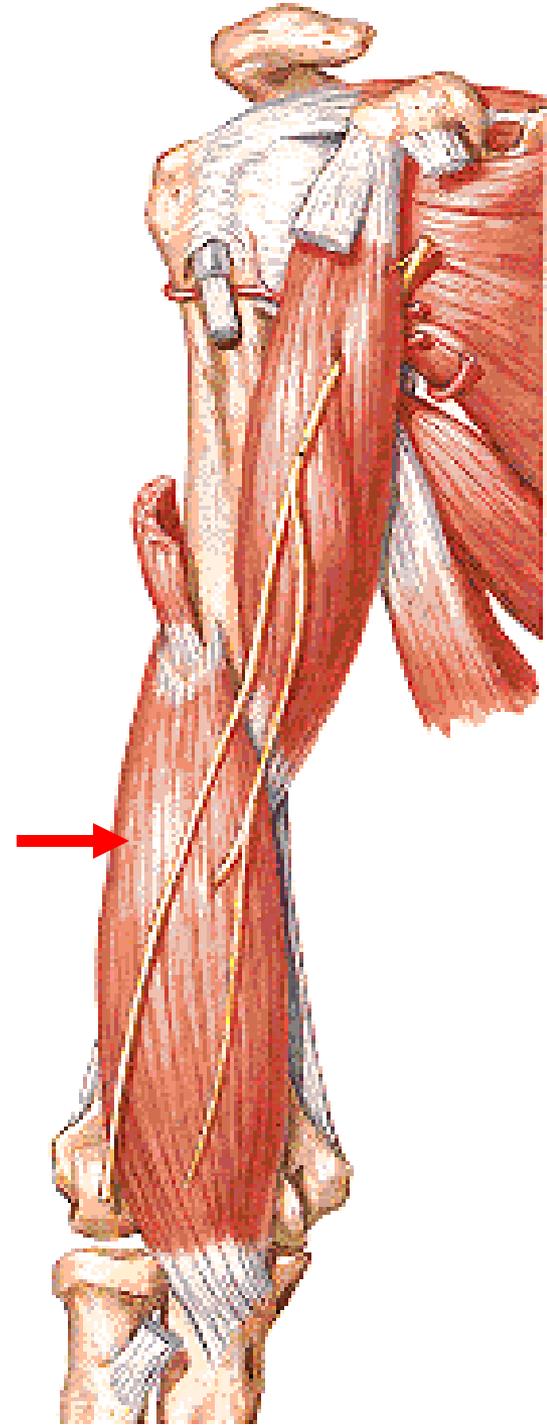
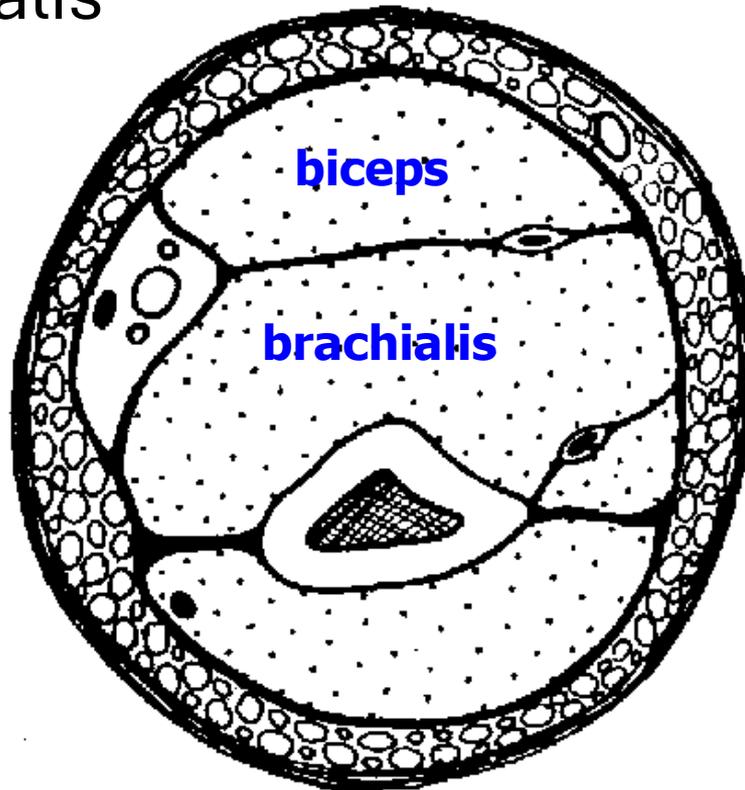
- Biceps brachii
- Coracobrachialis



Anterior compartment

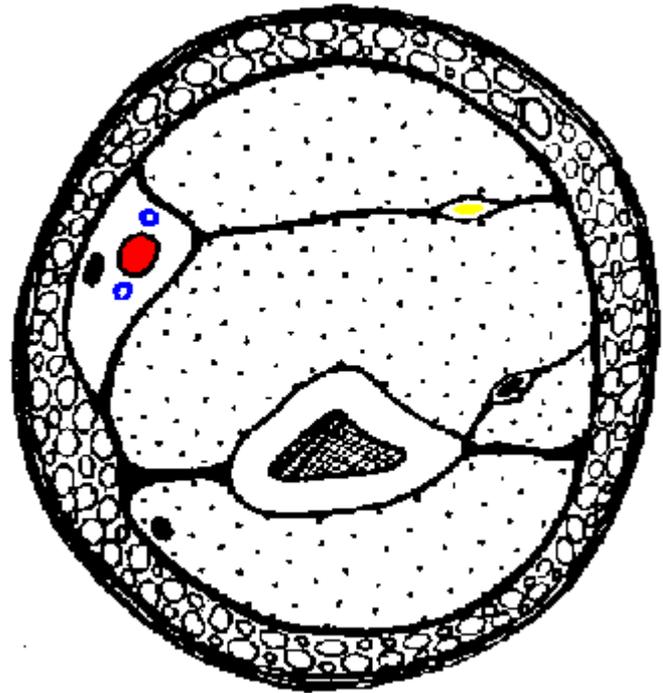
contains three muscles

- Biceps brachii
- Coracobrachialis
- Brachialis



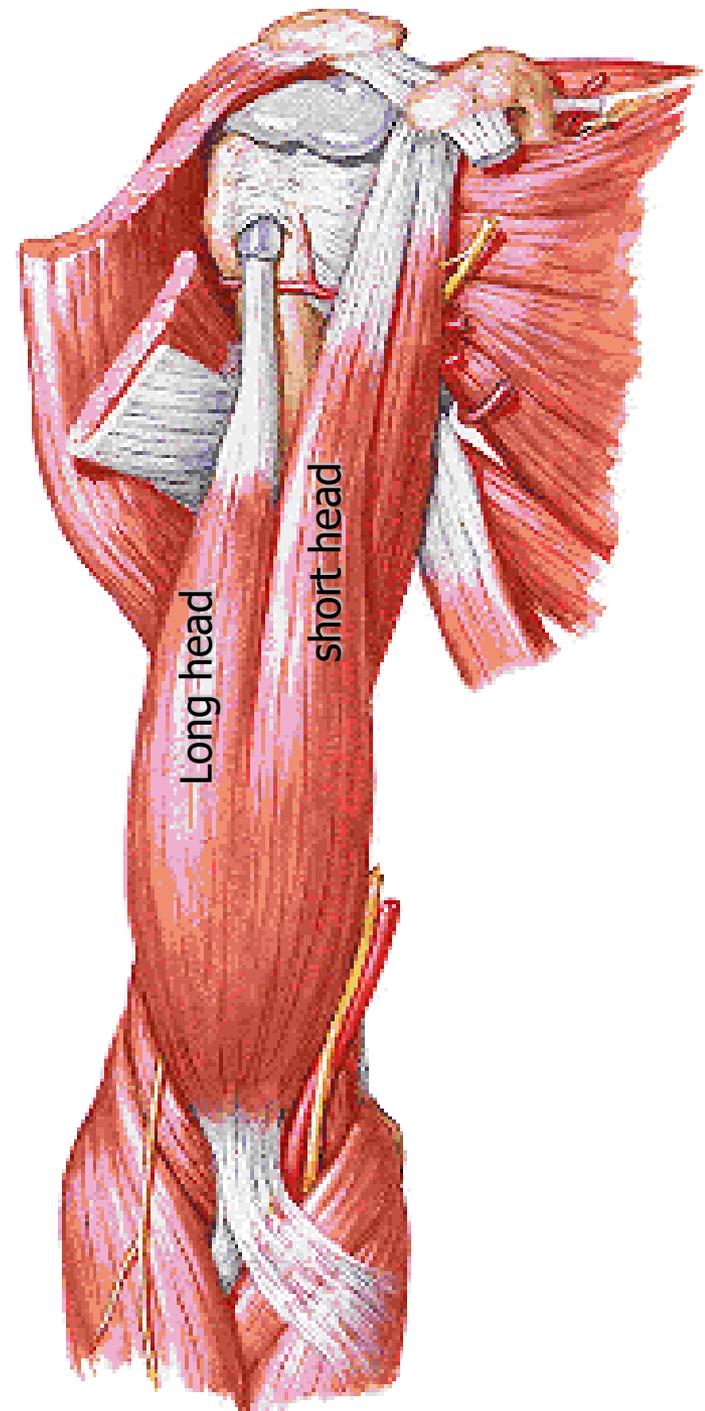
Anterior compartment

- The nerve of the compartment is the musculocutaneous nerve
- The artery is the brachial artery



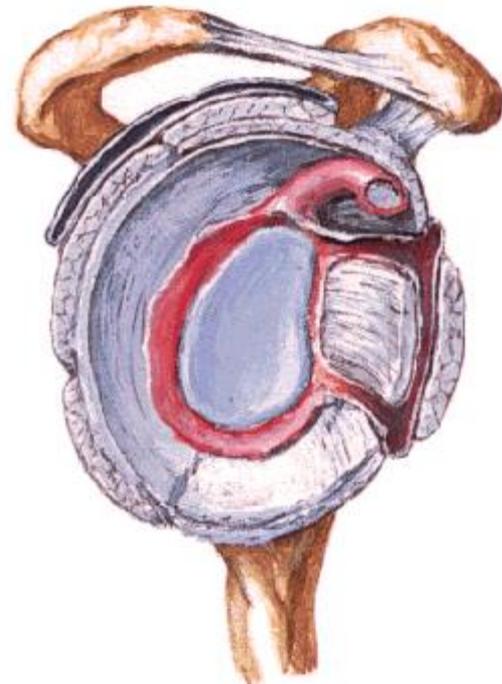
Biceps brachii

This muscle has 2 heads of origin (as its name implies), long head (which is lateral, L. for L.) and short head which is medial



Long head of biceps brachii

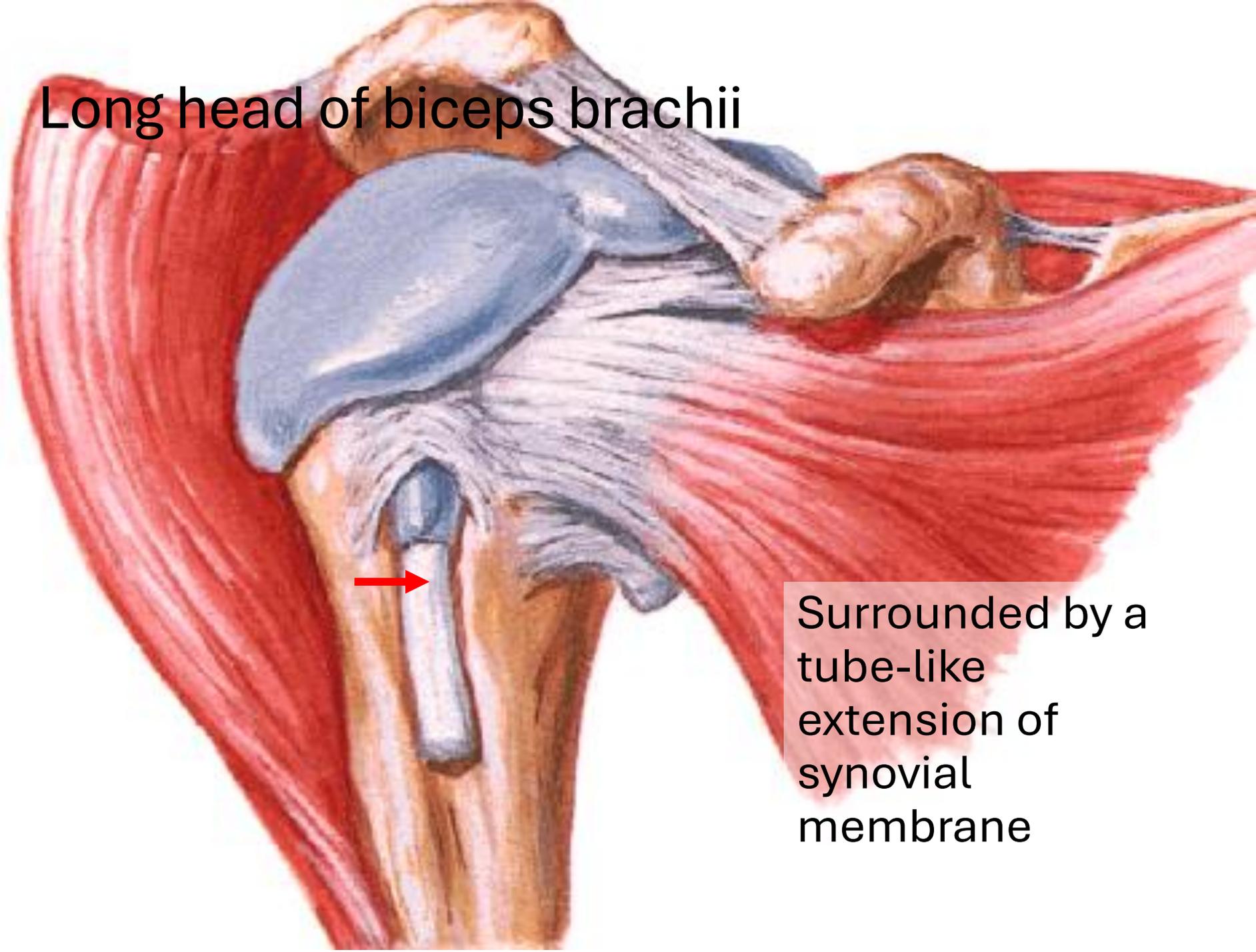
Arises from the supraglenoid tubercle of the scapula within the capsule of the shoulder joint



Long head of biceps brachii

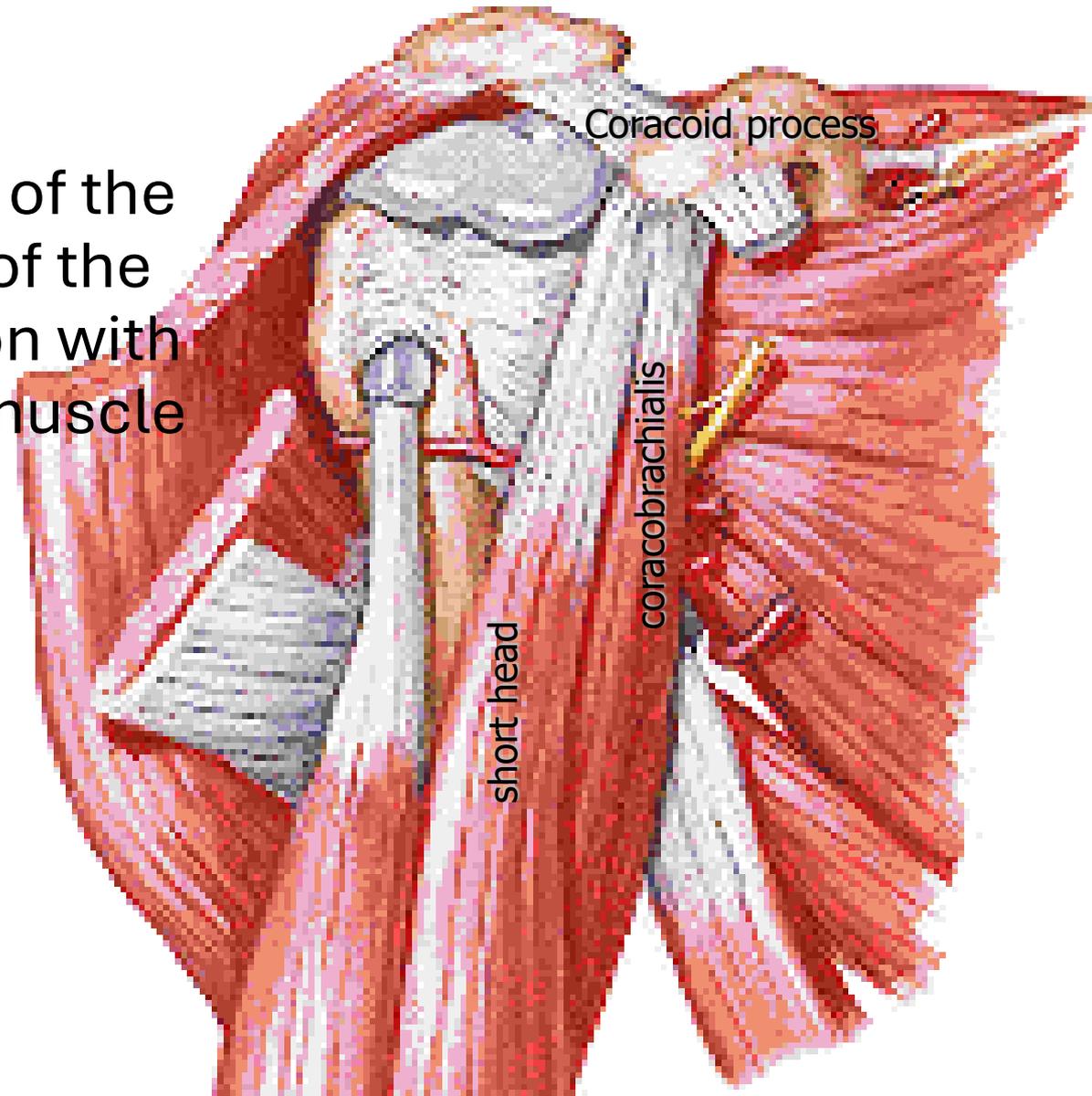


Surrounded by a tube-like extension of synovial membrane



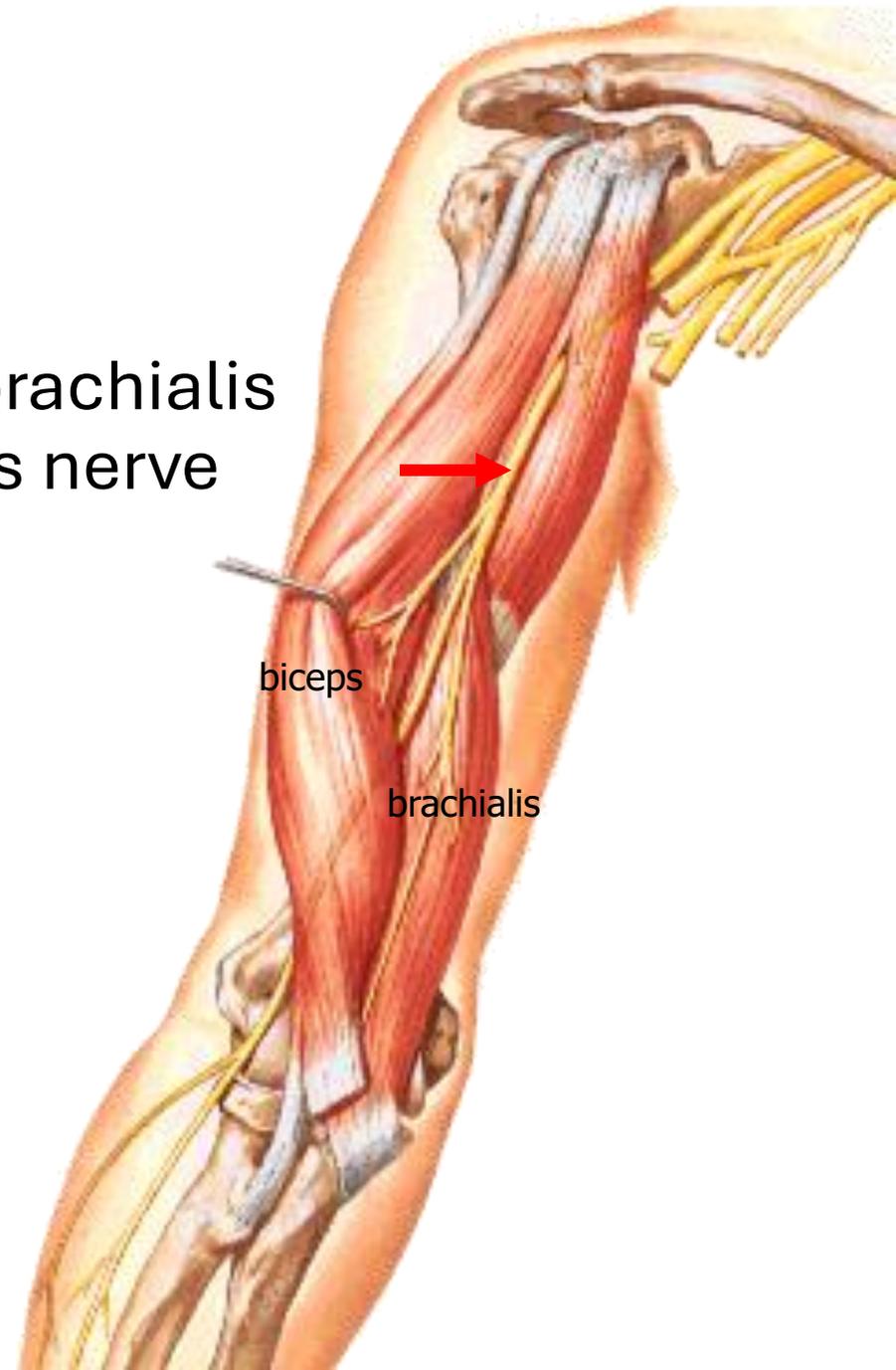
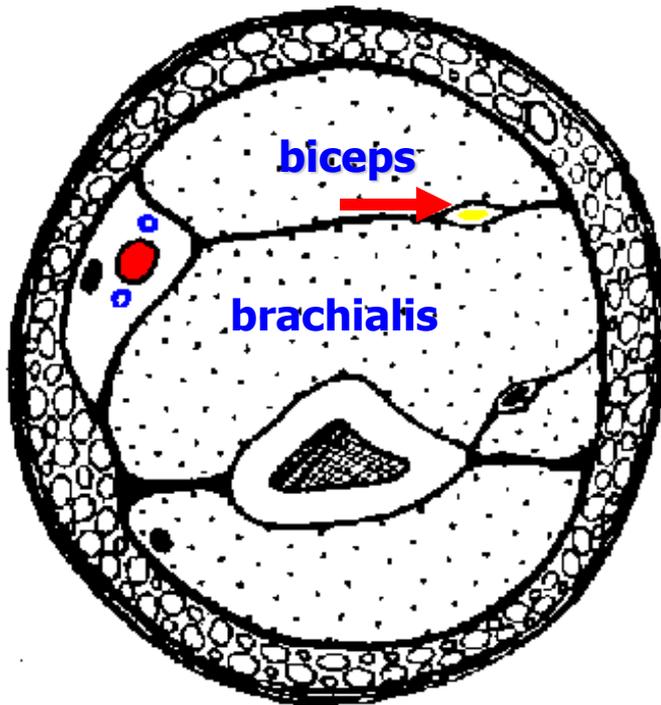
Medial head of biceps brachii

Arises from the tip of the coracoid process of the scapula in common with coracobrachialis muscle



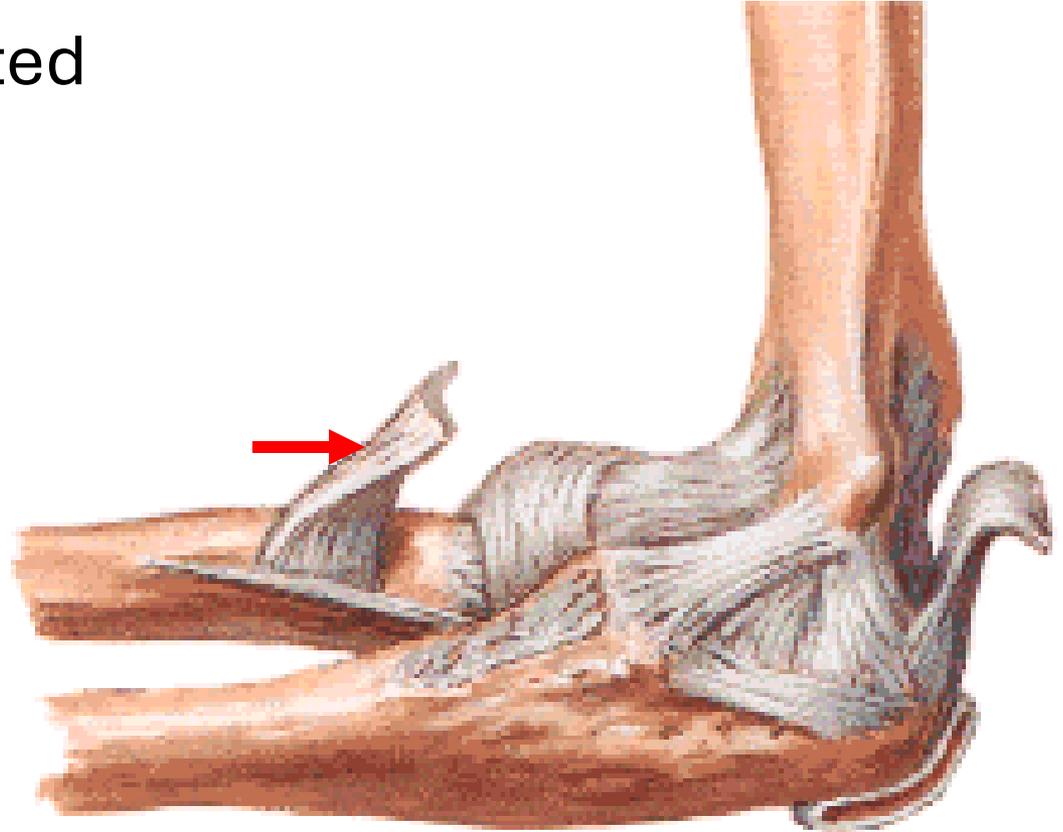
Biceps brachii

- The muscle lies in front of brachialis with the musculocutaneous nerve sandwiched between them



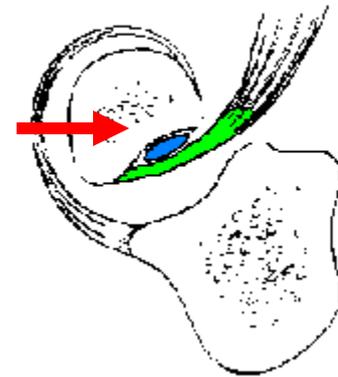
Insertion of biceps brachii

- The tendon is inserted into the radial tuberosity



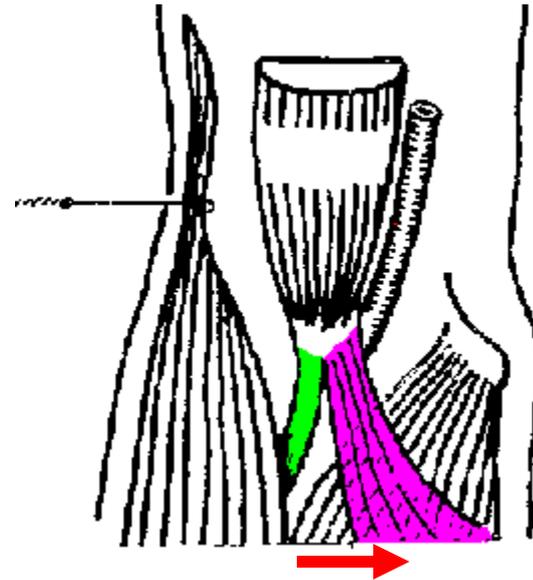
Insertion of biceps brachii

- A bursa is present between the tendon and radial tuberosity



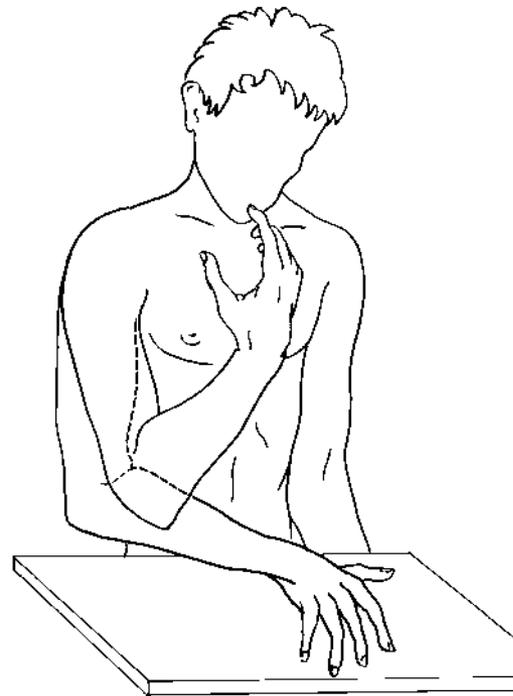
Bicipital aponeurosis

- An extension from the tendon of biceps brachii
- A thin sheet of connective tissue that passes medially to blend with the deep fascia of the forearm



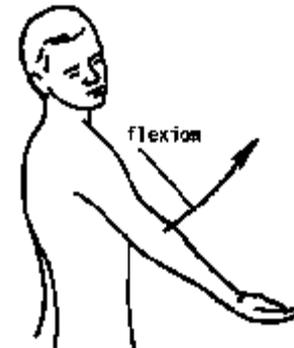
Action of biceps brachii

- The muscle is a powerful flexor and supinator of the forearm



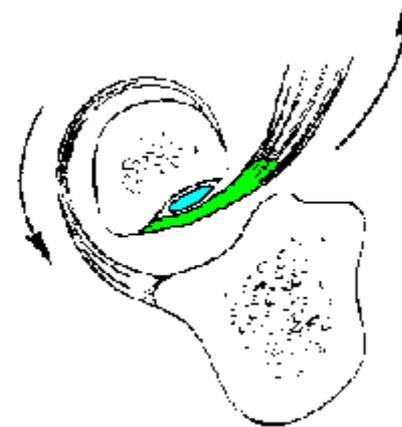
Action of biceps brachii

- its long head helps in flexion at the shoulder



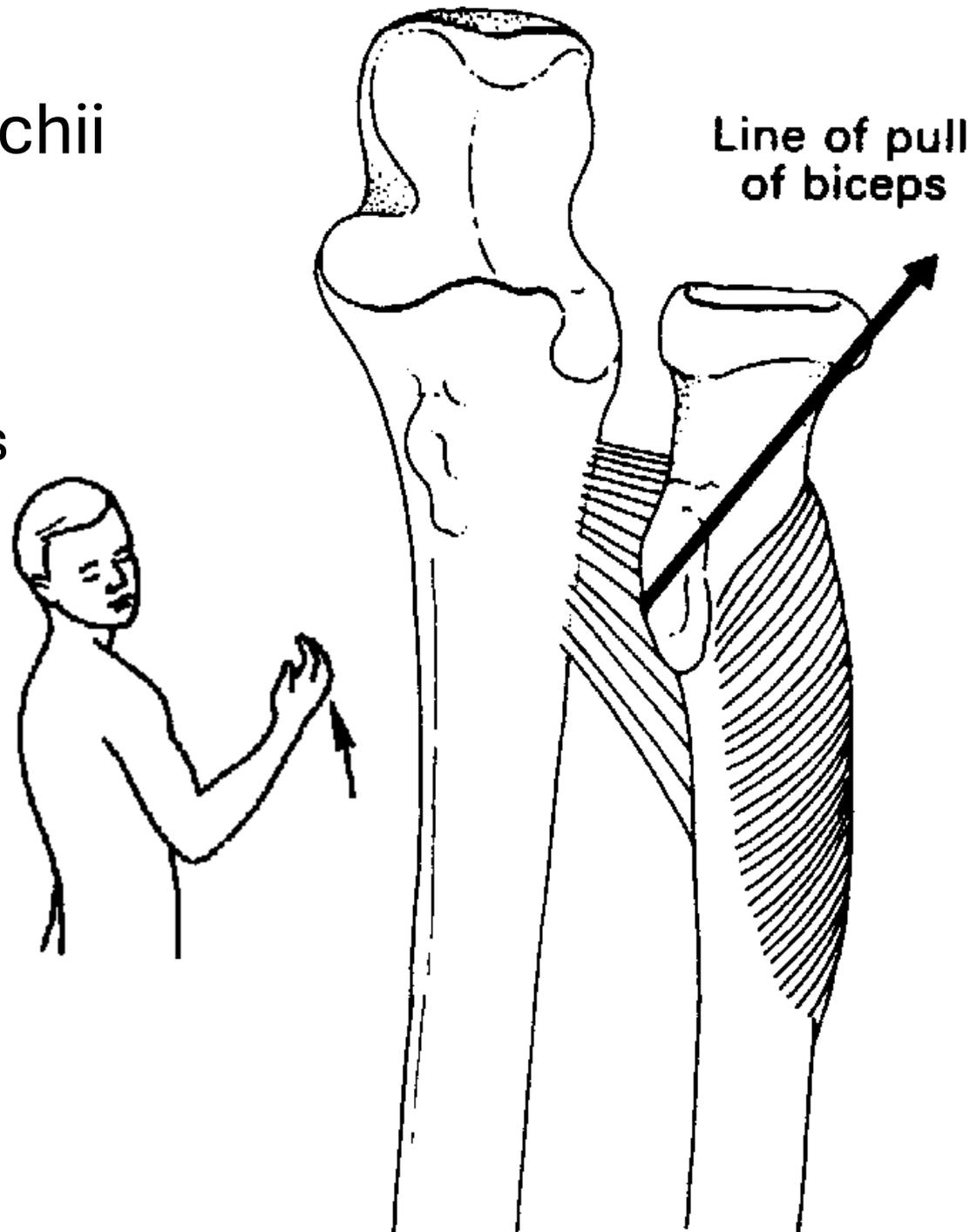
Action of biceps brachii

- The supinator action of biceps is due to its insertion onto the posterior aspect of the radial tuberosity



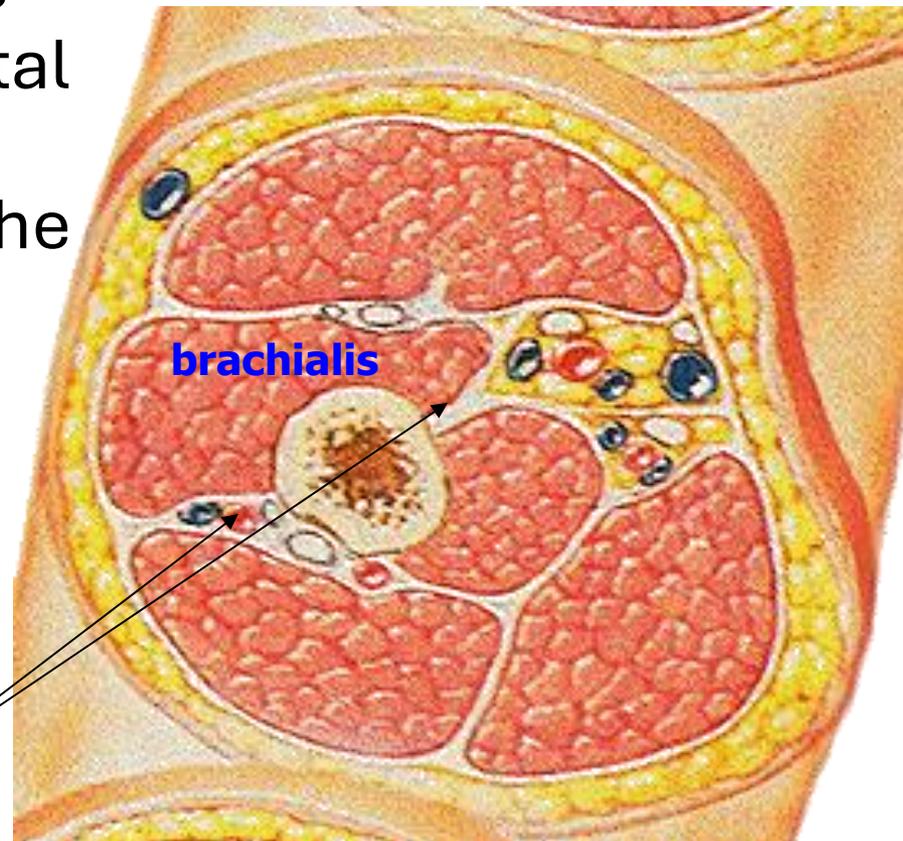
Action of biceps brachii

- when the biceps contracts, not only is the forearm flexed but the radius unwinds as its tuberosity is rotated anteriorly i.e. the forearm supinates

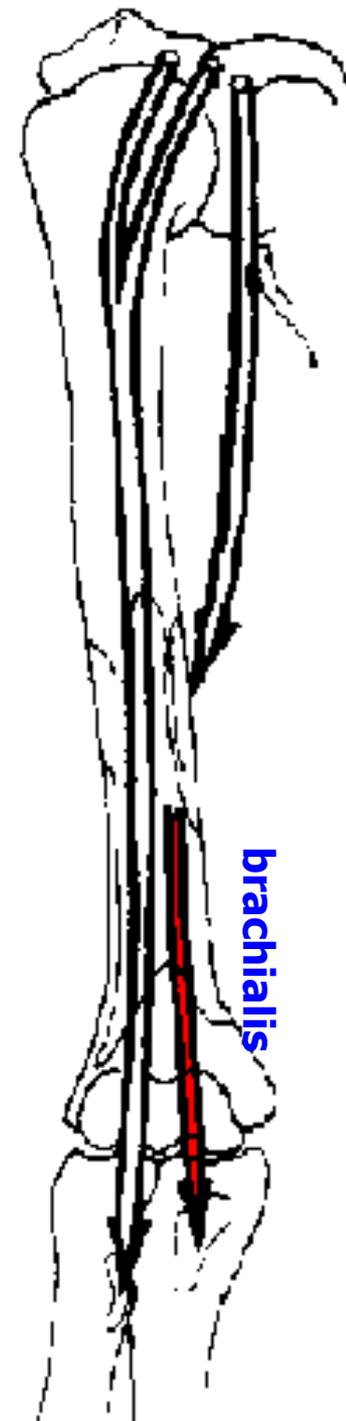


Brachialis origin

- Arises from the front of the distal part of the humerus and the intermuscular septa



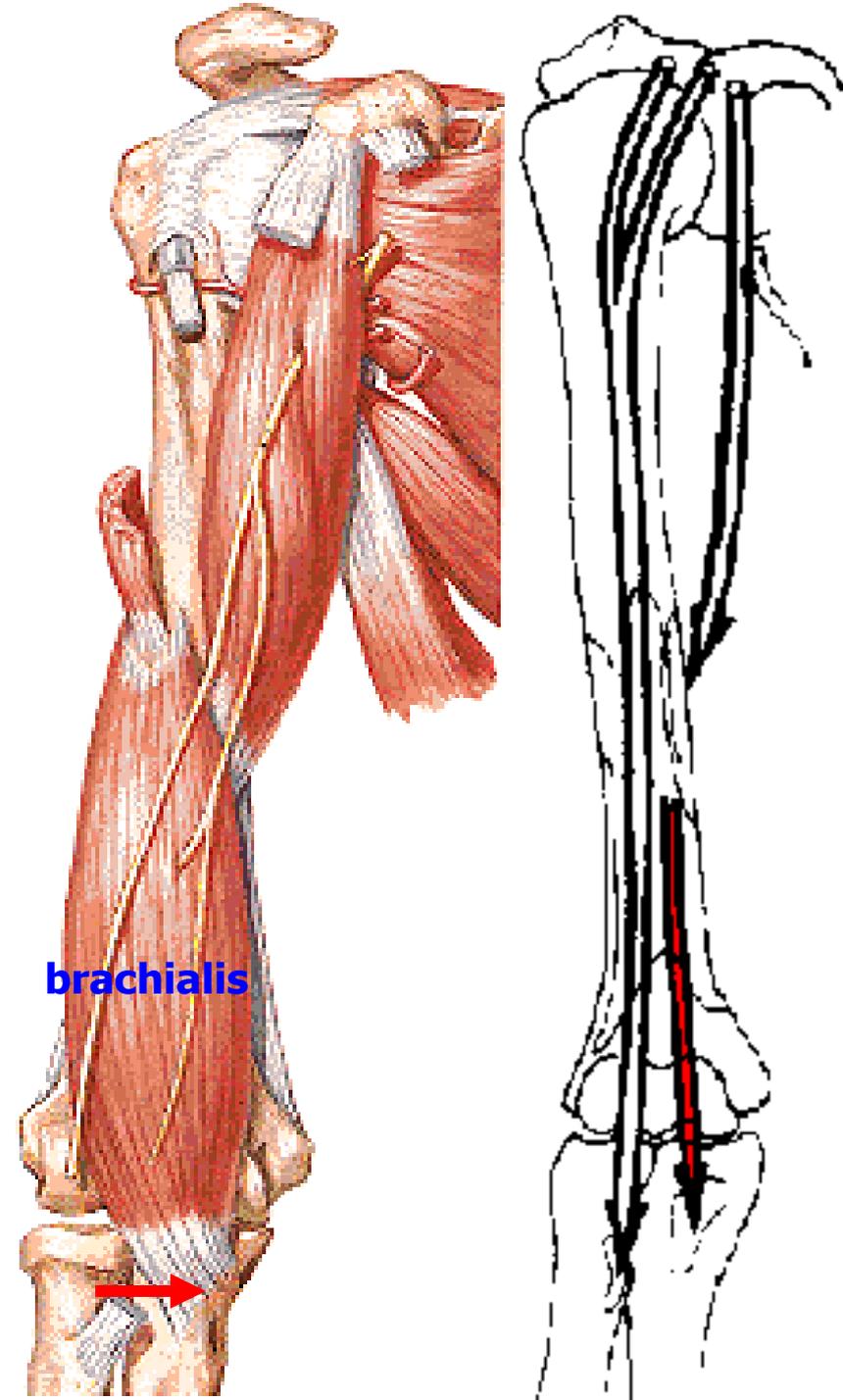
Medial & lateral
intermuscular septa



brachialis

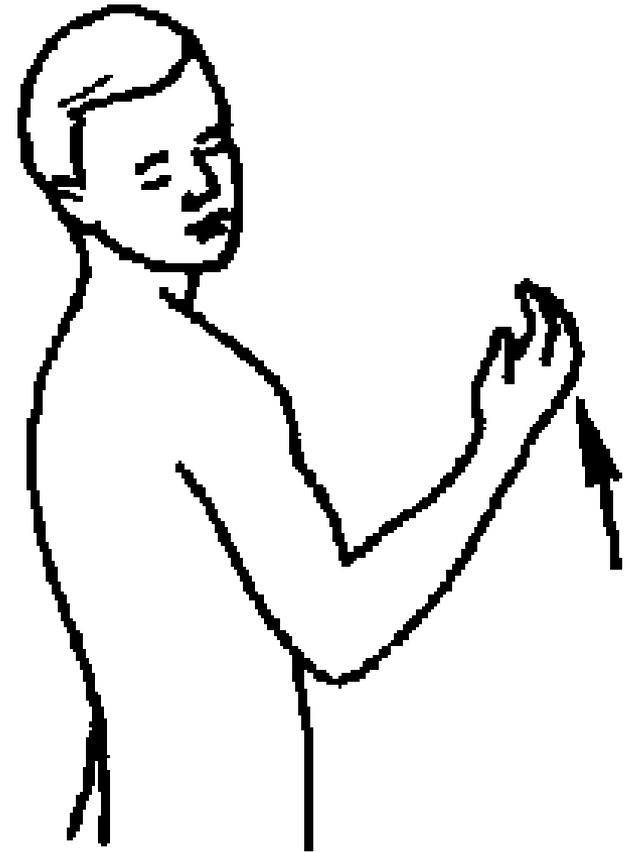
Brachialis insertion

- Is inserted into the coronoid process and tuberosity of the ulna.



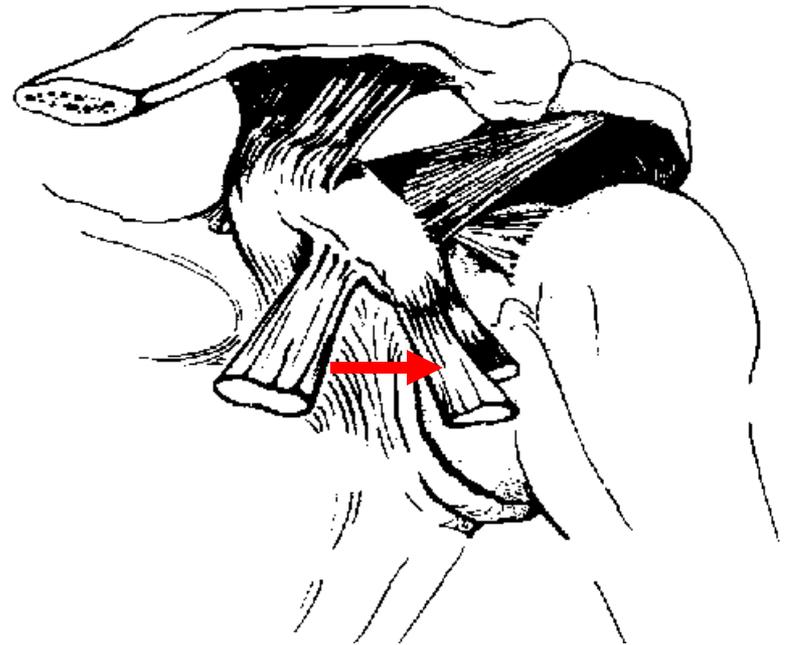
Brachialis action

- Passing in front of the elbow joint the muscle is a powerful flexor of the elbow



Coracobrachialis origin

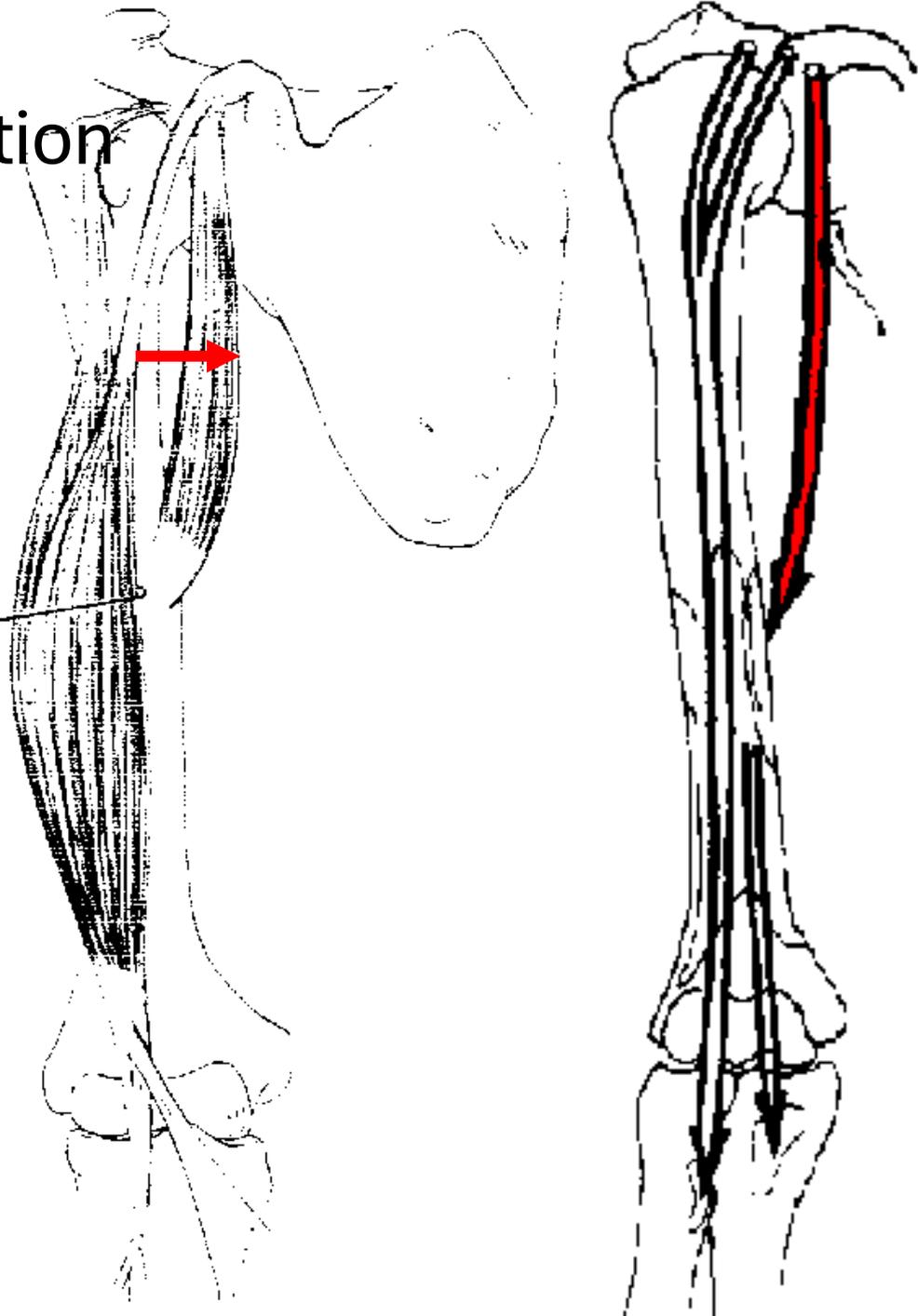
- Is a small muscle
- arises from the tip of the coracoid process in common with the short head of biceps brachii



Coracobrachialis insertion

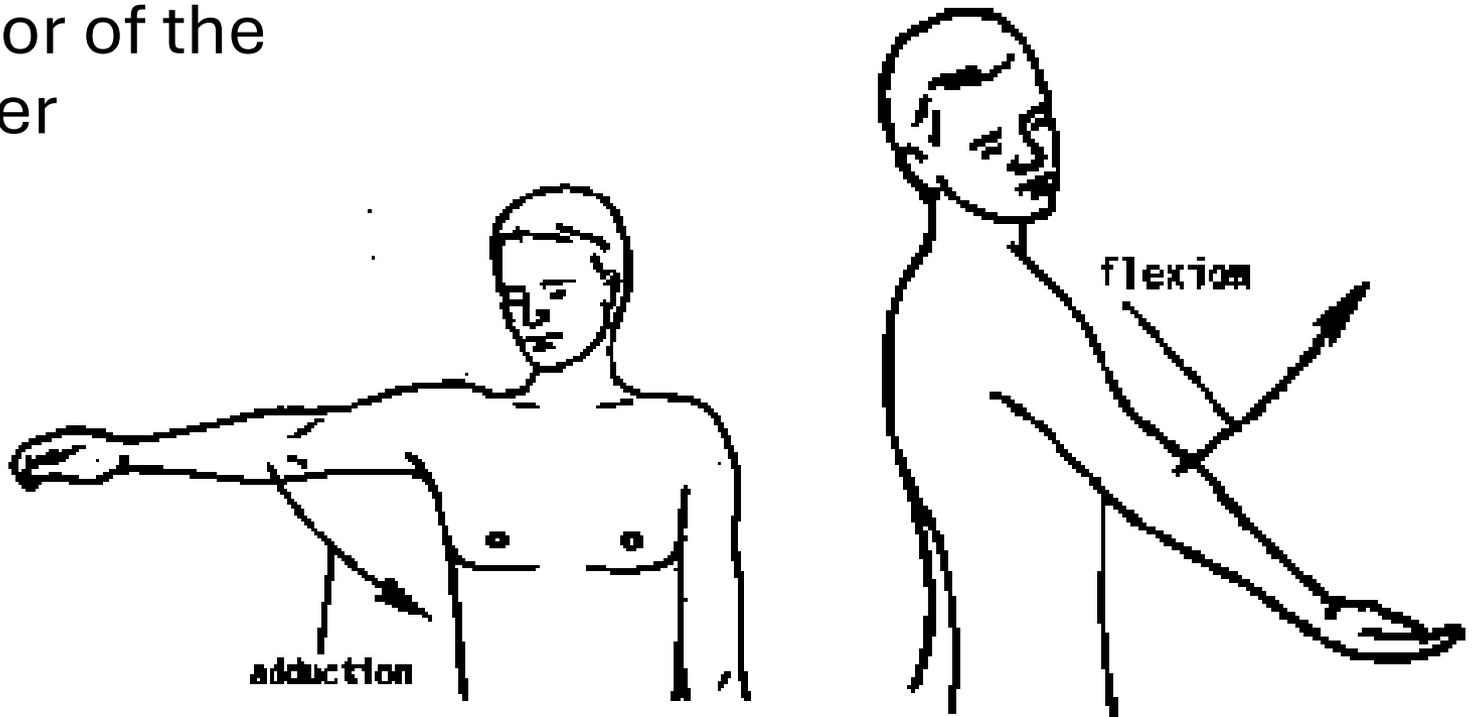
- into the middle third of the medial surface of the humerus.

short
head
of
biceps



Coracobrachialis action

- It is a weak flexor and adductor of the shoulder



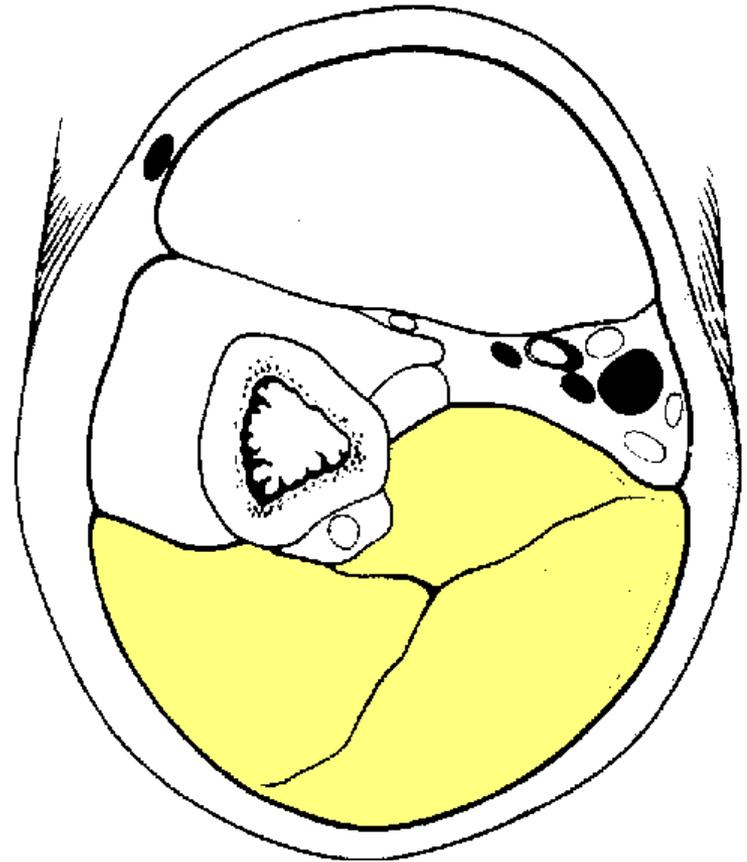
Coracobrachialis

- The musculocutaneous nerve passes through the muscle giving its branch of supply before doing so



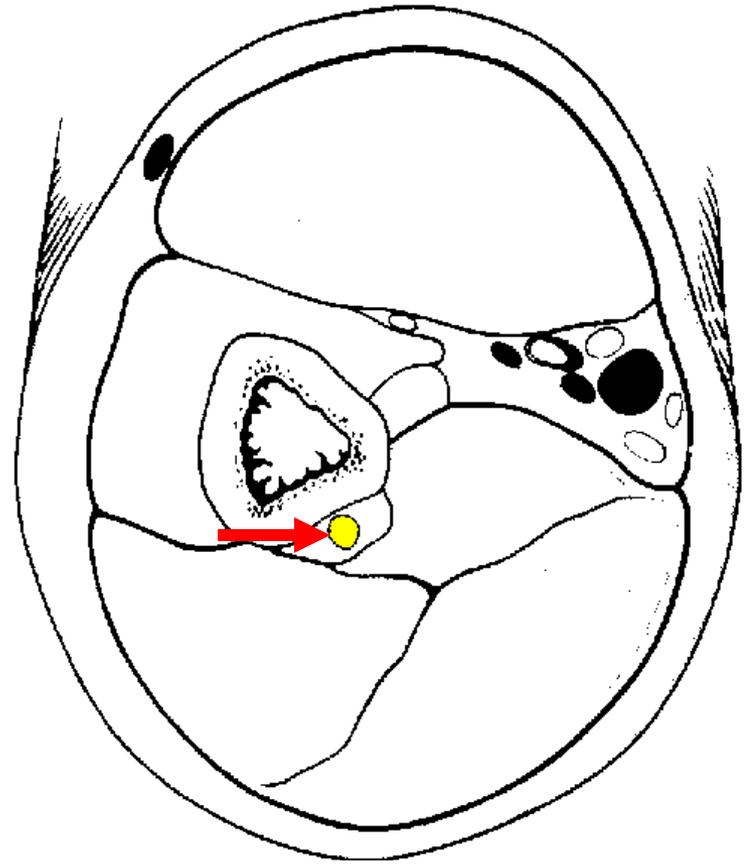
Posterior compartment of the arm

- Contains one muscle with three heads (**triceps**)



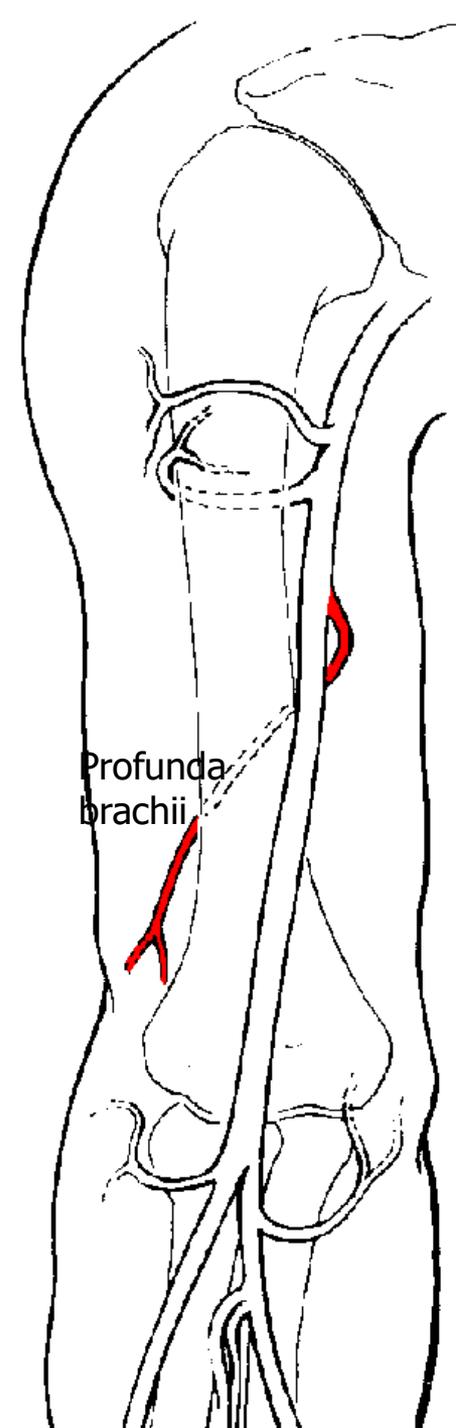
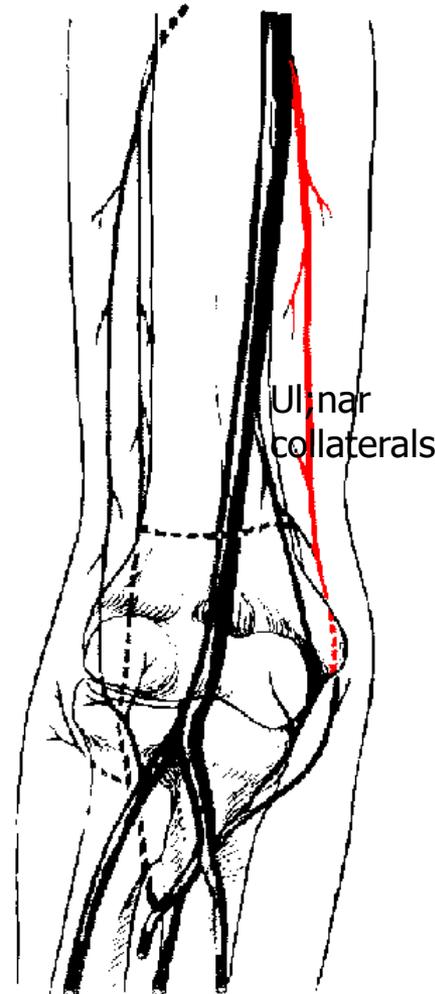
Posterior compartment of the arm

- the nerve of the compartment is the radial nerve



Posterior compartment of the arm

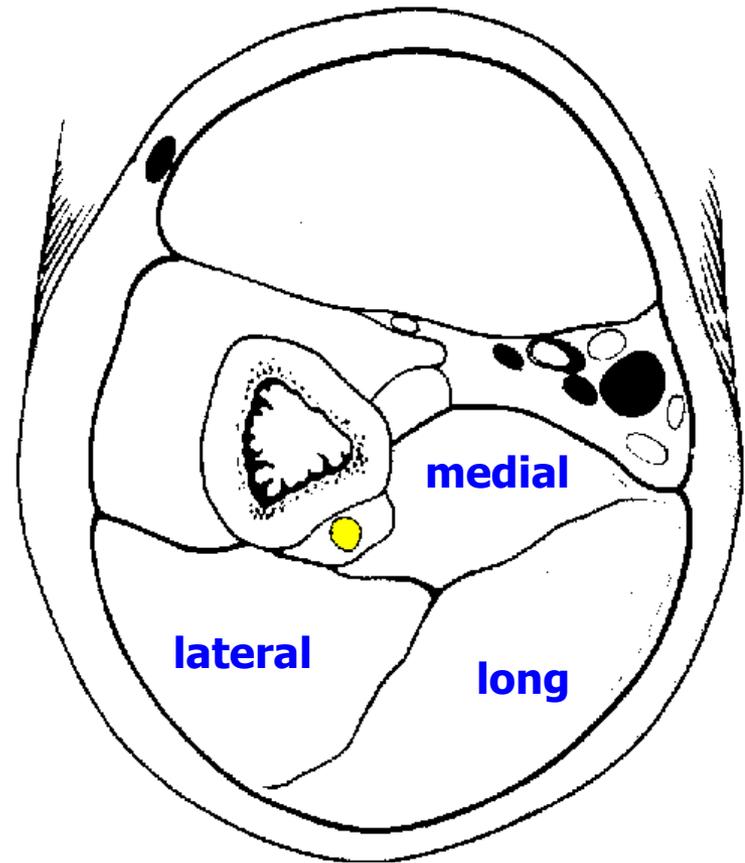
- The artery of the compartment is the profunda brachii and ulnar collateral arteries branches of the brachial artery



Triceps

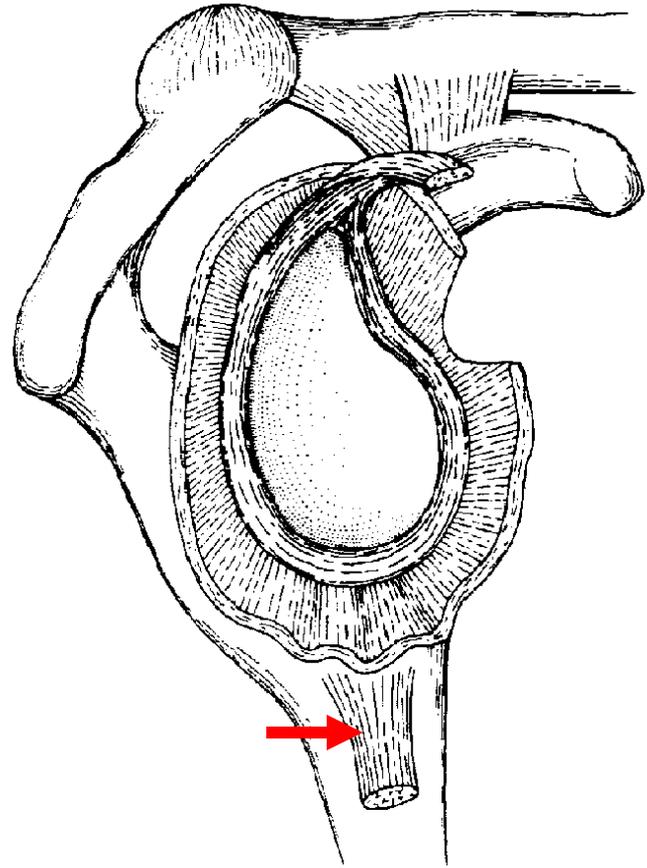
As its name indicates
this muscle has three
heads of origin

- Long
- Lateral
- Medial



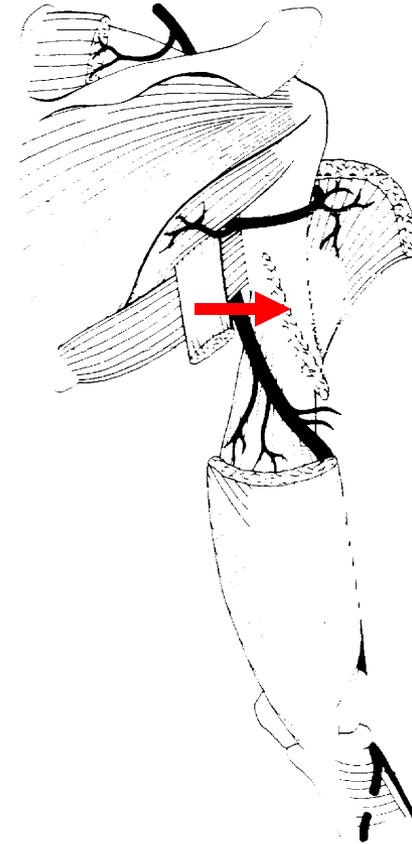
Long head of triceps

- arises from the infraglenoid tubercle of the scapula



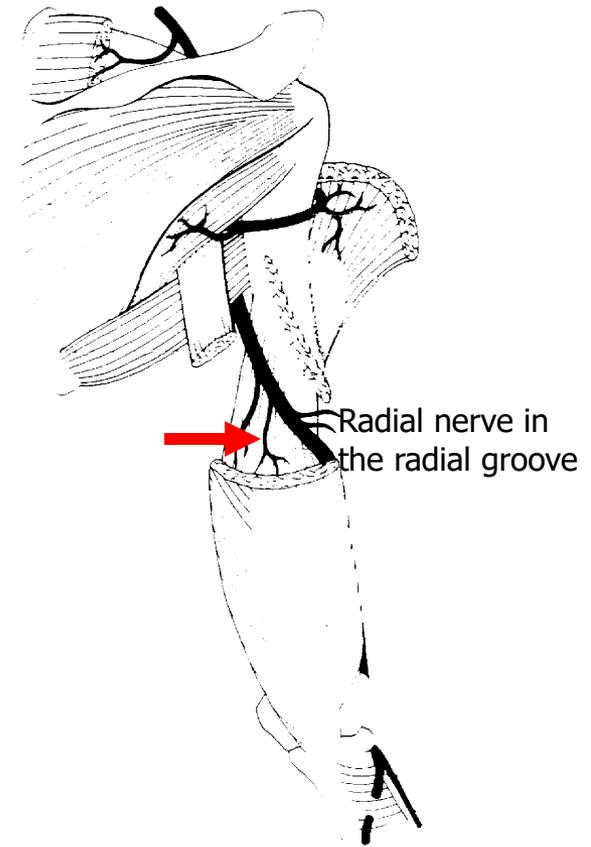
Lateral head of triceps

- arises from the posterior surface of the humerus superior to the radial groove



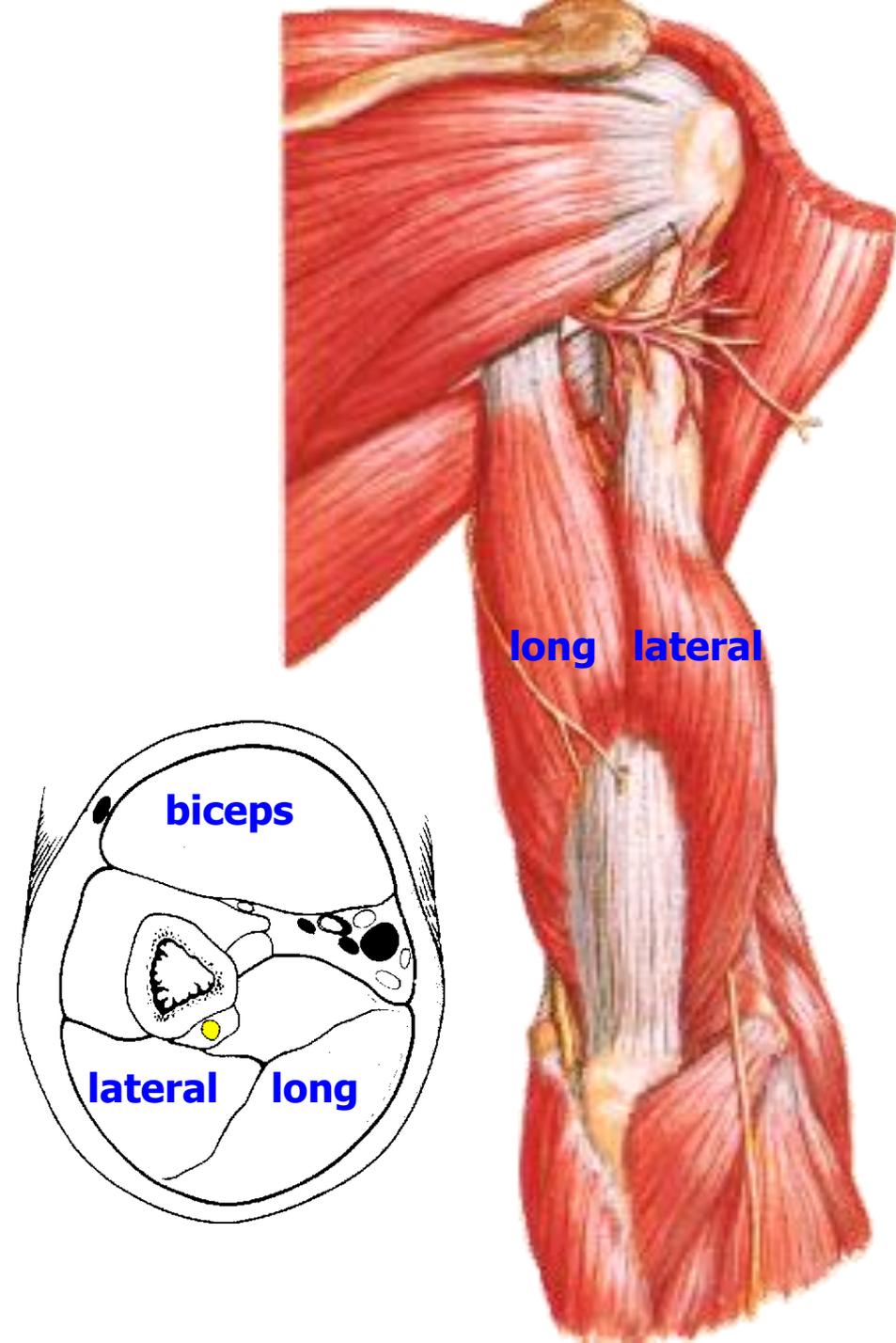
Medial head of triceps

- Arises from the posterior surface of the humerus inferior to the radial groove



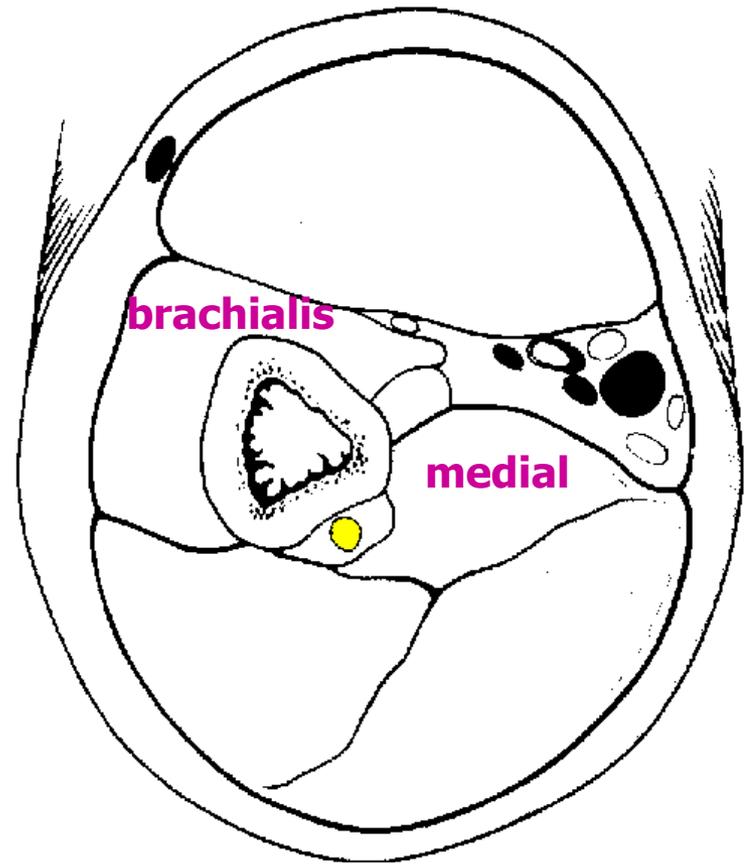
Triceps heads

- It might help to understand the relations of the heads to consider a superficial part of the muscle formed of the long and lateral heads lie side by side and are comparable to biceps



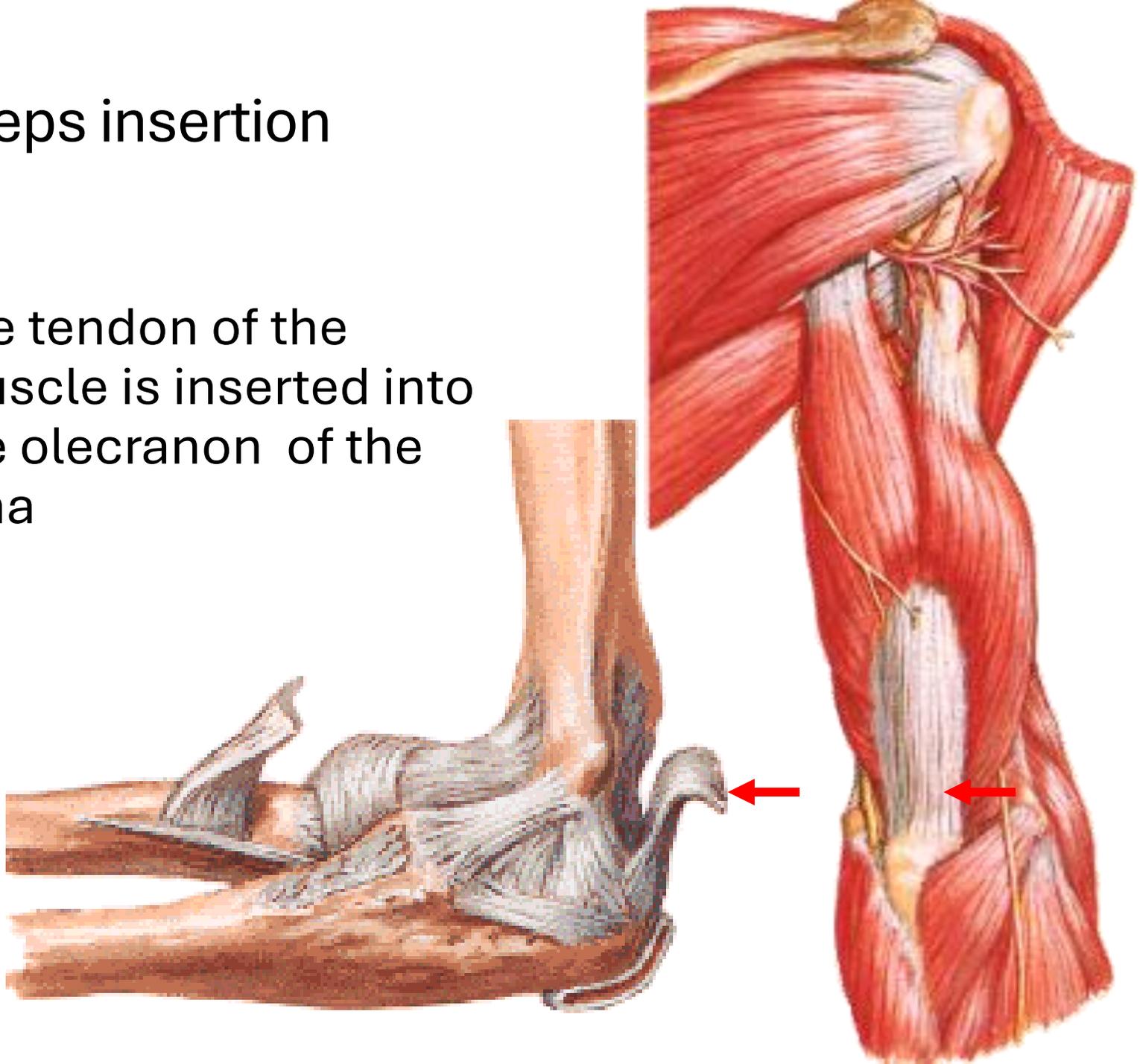
Triceps heads

- the medial head is actually in a deeper plane and is comparable to brachialis in that it is deep and takes origin from the lower part of the shaft and the intermuscular septum



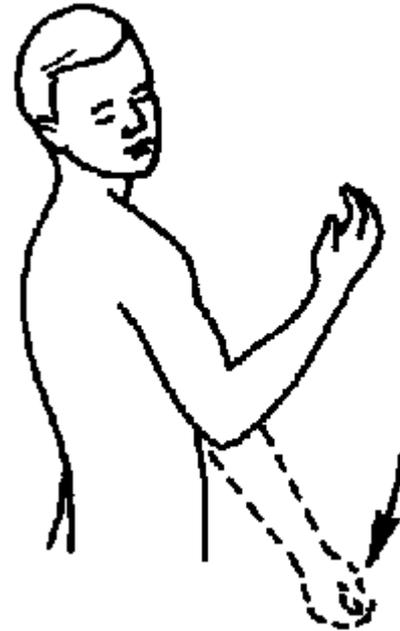
Triceps insertion

- The tendon of the muscle is inserted into the olecranon of the ulna



Triceps action

- The muscle is an extensor of the elbow



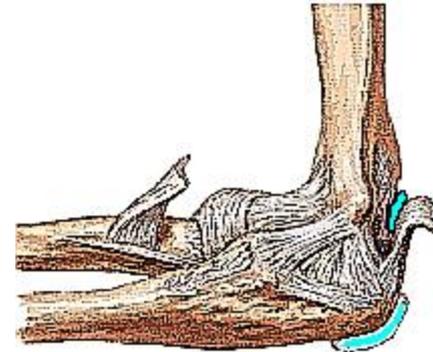
Triceps action

- its long head arising from the infraglenoid tubercle aids in extending the shoulder joint and is an important factor in the stability of the abducted shoulder



Bursae related to triceps tendon

- Subcutaneous bursa
 - located in the subcutaneous tissue
- Subtendinous olecranon bursa
 - located between the tendon and olecranon



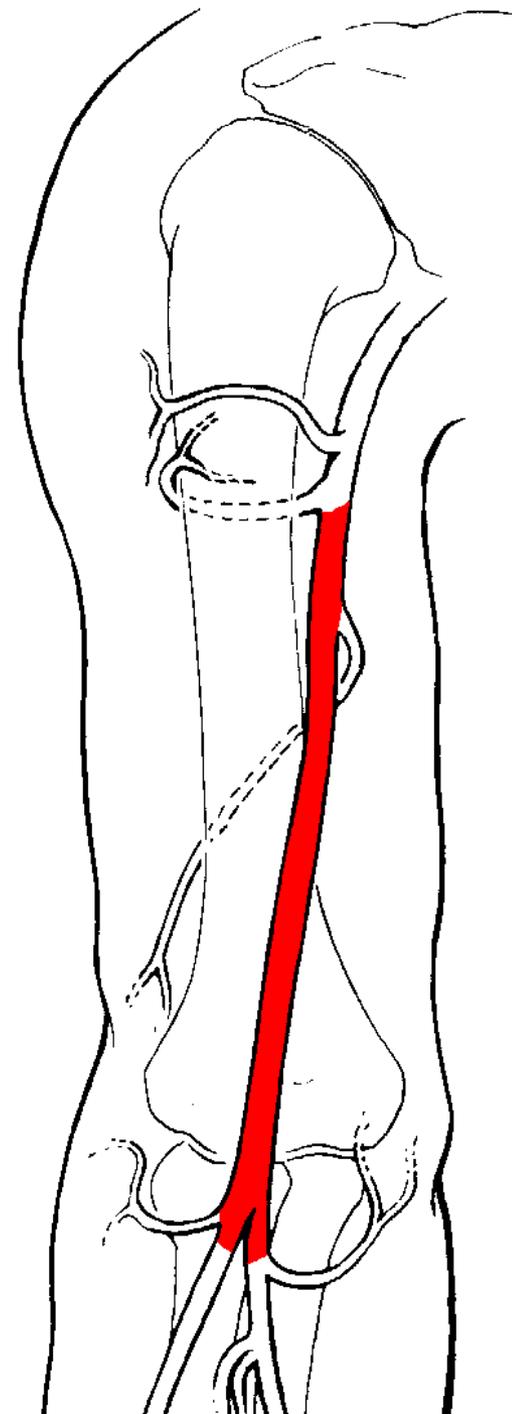
Student's elbow

- The subcutaneous bursa is liable to be inflamed by repeated friction this is called "student's elbow "



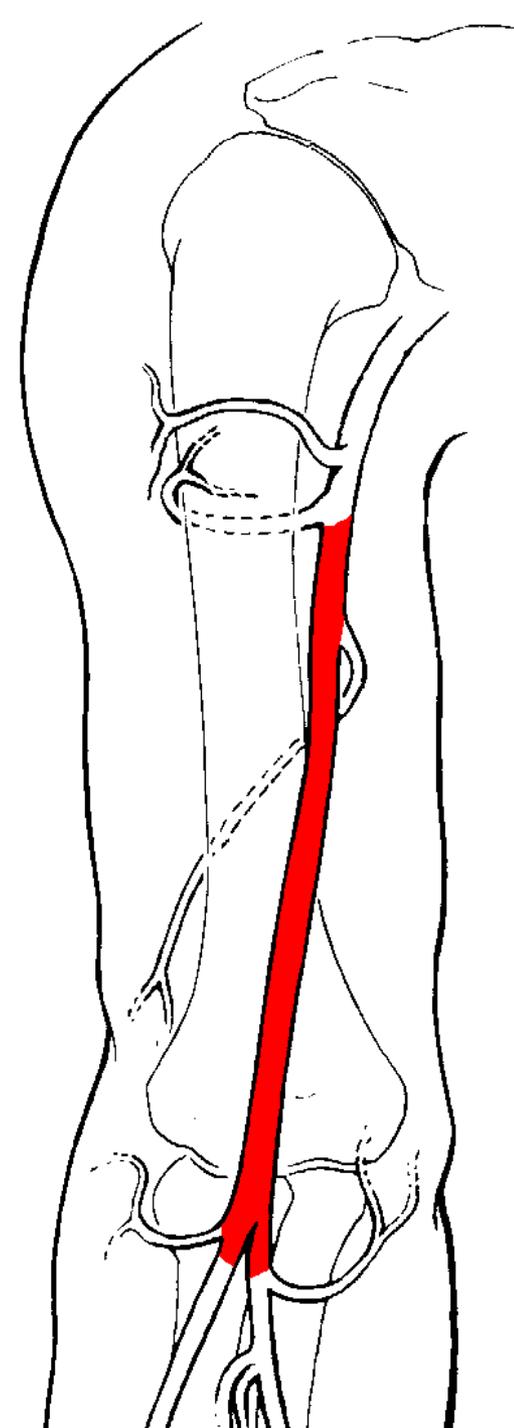
Brachial artery

- is the continuation of the axillary artery



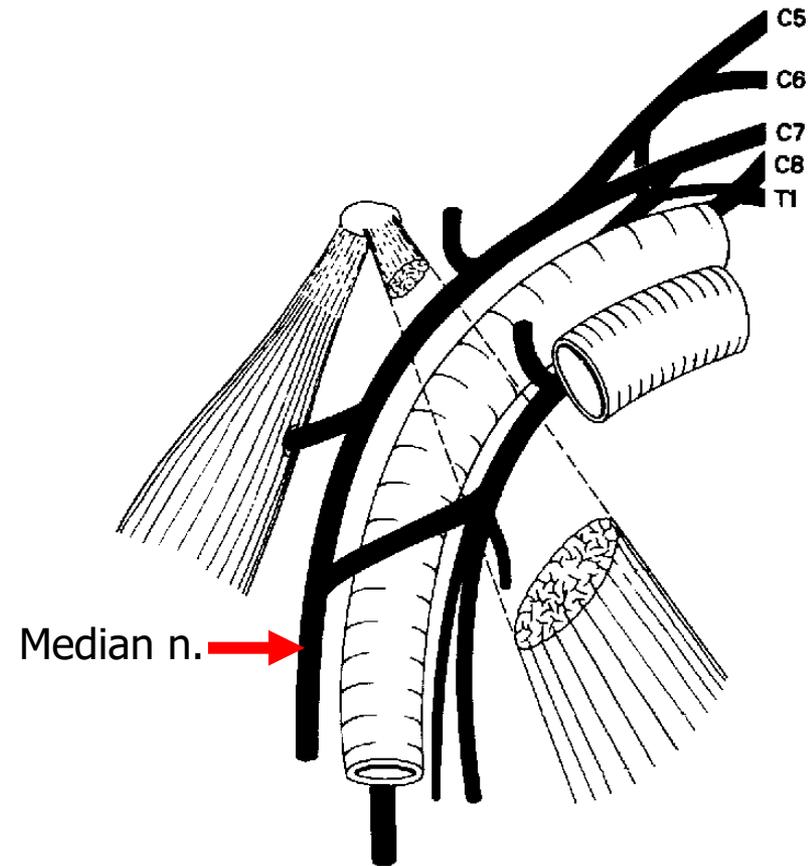
Brachial artery

- At the cubital fossa in front of the elbow joint, it ends opposite the neck of the radius by dividing into radial and ulnar arteries



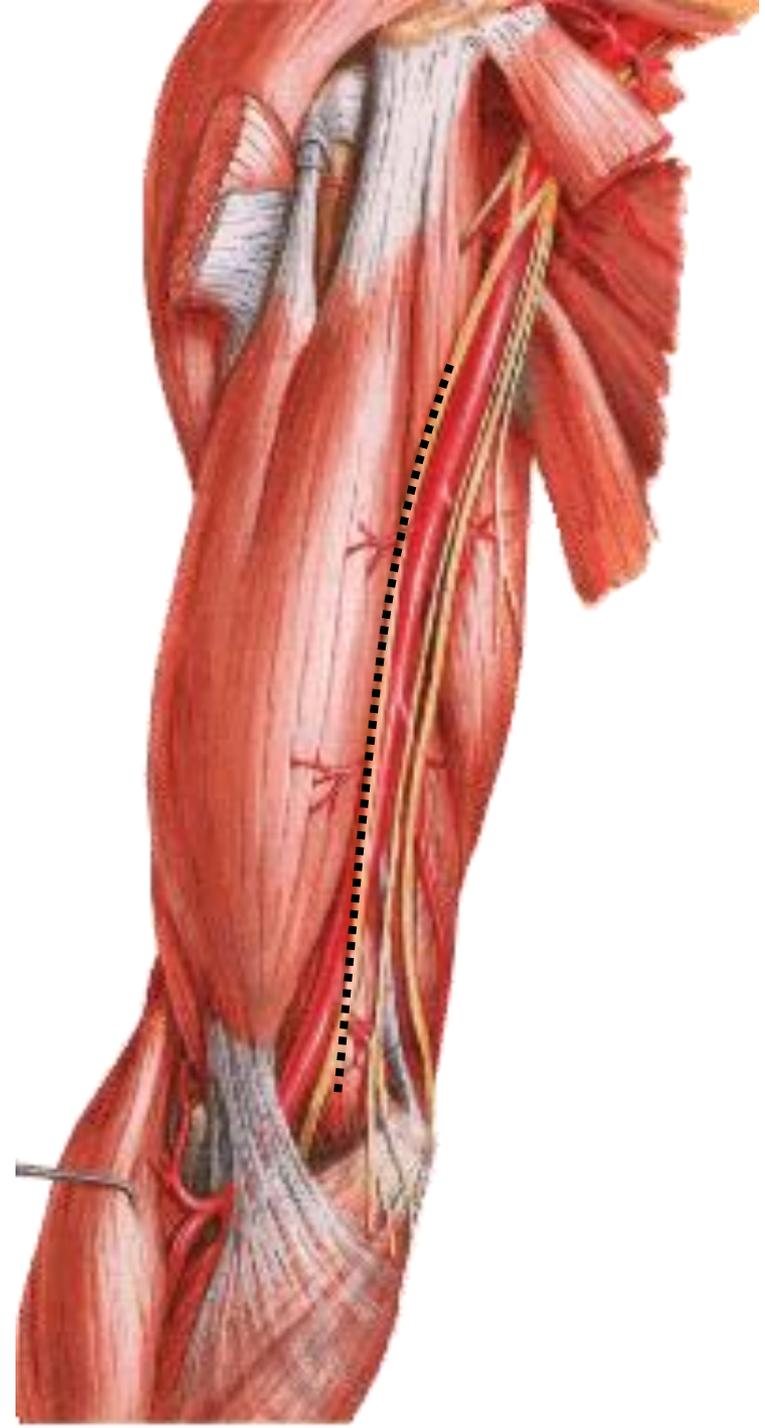
Median nerve

- The median nerve is formed by the union of the medial and lateral roots lateral to the axillary artery



Median nerve

- The median nerve crosses anterior to the brachial artery in the middle of the arm



Median nerve

- at the elbow, the median nerve lies medial to the brachial artery

