

Main Muscles of Arm

| Muscle | # of heads | Innervation | Action | |
|---------------------------|---------------------------------|--|---|------------------------|
| <u>Biceps Brachii</u> B | 2 (long, short lateral, medial) | Musculocutaneous | Flexion of Arm & Elbow, Supinator of <u>Semi-flexed</u> forearm |] Flexors (Anterior) |
| <u>Brachialis</u> B | N/A | Musculocutaneous (Lateral fibres supplied by Radial Nerve) | <u>Main flexor</u> of forearm | |
| <u>Coracobrachialis</u> C | N/A | Musculocutaneous | Flexion of forearm | |
| <u>Triceps Brachii</u> | 3 (Long, Medial, Short) | Radial Nerve | <u>Main Extensor</u> of forearm |] Extensor (Posterior) |

IMPORTANT NOTICE

Regarding the muscles of the arm and the forearm

- Anterior muscles are flexors
- Posterior muscles are extensors

Remember: Insertion toward origin to know Action.

When you see

think

Radialis Muscle ⇒ Abduction of hand

Ulnaris Muscle ⇒ Adduction

Carpi ⇒ Connected to Carpal / Metacarpal (wrist bone)

Digitorum: Medial
4
fingers

Policis : Thumb

e.g. Flexor Carpi Radialis
flexes wrist Abduction of hand

Muscles of Upper Limb

- Key:**
- Pectoralis region
 - Back region
 - Shoulder region

| Muscle | Origin | Insertion | Action | Innervation |
|---------------------|--|---------------------------------|---|---|
| • Pectoralis Major | <ul style="list-style-type: none"> * Sternal Head 1st → 6th Costal Cartilage * Clavicular Head Medial $\frac{2}{3}$ of clavicle | Lateral Lip of Bicipital groove | <ul style="list-style-type: none"> * Flexion of Arm * Adduction & Medial Rotation of arm <p>All muscles connected to bicipital groove do this</p> | Med. and Lat. Pectoral Nerve |
| • Pectoralis Minor | 3 rd , 4 th , 5 th Ribs, <u>Close to costal cartilage</u> | Coracoid process of Scapula | <ul style="list-style-type: none"> * Protraction of Scapula * Depresses (lowers) shoulder | Medial Pectoral Nerve |
| • Serratus Anterior | N/A | N/A | <ul style="list-style-type: none"> * Protraction of Scapula * Rotation of Scapula above 90° (e.g. placing hand above head) | Nerve for Serratus Anterior (Long Thoracic Nerve) |
| • Deltoid | N/A | N/A | Abduction of Shoulder from 15° → 90° | Axillary Nerve |
| • Supraspinatus | N/A | N/A | Initiates Abduction (0° → 15°) | Suprascapular Nerve |
| • Subscapularis | N/A | N/A | Adduction and Medial Rotation | Upper and Lower Subscap. |
| • Trapezius | N/A | N/A | Elevates shoulder | Spinal Accessory |

Anterior

| Superficial | Intermediate |
|--|--|
| <ul style="list-style-type: none"> * Pronator Teres * Flexor Carpi Radialis * Palmaris Longus <p>Supplied by Medial Nerve</p> | <ul style="list-style-type: none"> * Flexor Digitorum Superficialis |
| Flexor Carpi Ulnaris | |
| Supplied by Ulnar Nerve | |

Lateral (Supplied by Radial Nerve)

Brachioradialis ⇒ flexes elbow when forearm is mid-prone

Extensor Carpi Radialis Longus (ECRL) ⇒ wrist Extension, Abduction of hand

Posterior

Superficial (Supplied by Deep Branch of Radial Nerve)

Extensor Carpi Radialis Brevis wrist Extension, Abduction hand

Extensor Digitorum Wrist Extension, Extends medial 4 fingers

Extensor Digit Minimi

Extensor Carpi Ulnaris Wrist extension, hand Adduction

Deep

Supinator

Abductor Pollicis Longus

Extensor Pollicis Longus

Extensor Pollicis Brevis

Extensor Indicis

} REED ONLY

Imp. Note: Pronator Quadratus is main Pronator of forearm (not pronator teres)