MUSCLES OF THE ARM

MUSCLES OF THE ANTERIOR COMPARTMENT OF THE ARM

	1. BICEPS BRACHII	2. CORACOBRACHIALIS	3. BRACHIALIS
Origin	◇ **Long head:** → Supraglenoid tubercle of scapula. ◇ **Short head:** → Tip of coracoid process of scapula.	◇ Tip of coracoid process of scapula.	◇ Lower half of the front of humerus.
Insertion	1. **Biceps tendon:** → into radial tuberosity. 2. **Bicipital aponeurosis:** → blends with deep fascia of forearm.	◇ Middle of the medial border of humerus. Bierced by MC nerve	◇ Ulnar tuberosity.
Nerve supply	**Musculo-cutaneus nerve.**		+ Radial nerve. (Lateral ½)
Action	1. Powerful flexor of the elbow. 2. Powerful supinator of the flexed elbow. 3. Weak flexor of the shoulder joint.	◇ Flexion & weak adduction of arm.	◇ Flexion of the elbow joint. Main flexor

MUSCLES OF THE POSTERIOR COMPARTMENT OF THE ARM

	TRICEPS BRACHII
Origin	1. **Long head:** → Infraglenoid tubercle of the scapula. 2. **Lateral head:** → Posterior surface of the humerus **above** spiral groove. 3. **Medial head:** → Posterior surface of the humerus **below** spiral groove. Largest head
Insertion	◇ Upper surface of olecranon process.
N. supply	◇ Radial nerve.
Action	1. Powerful extension of the elbow. 2. Weak extensor of the shoulder joint

MUSCLES OF THE PECTORAL REGION

	1. PECTORALIS MAJOR	2. PECTORALIS MINOR	3. SUBCLAVIUS
Origin	**2 Heads:** 1. **Clavicular head:** - Anterior surface of medial 1/2 of clavicle. 2. **Sternocostal head:** - Anterior surface of sternum. - Upper 6 costal cartilages. - Aponeurosis of external oblique	- **3rd, 4th & 5th** ribs close to their costochondral junction.	- Superior surface of **1st rib.**
Insertion	- Lateral lip of bicipital groove	- Coracoid process.	- Groove on inferior surface of intermediate 1/3 of clavicle.
Nerve supply	- Medial & Lateral pectoral nerves.	- Medial pectoral nerve.	- Nerve to subclavius (C5&C6)
Action	1. Adduction & Medial rotation of arm	1. **Protraction of scapula** 2. **Depression** of scapula 3. **Downward rotation** of scapula	1. **Steady the clavicle** during movement of shoulder girdle. 2. Acts as a buffer to **protect great vessels and nerves** from the bone

MUSCLES OF THE BACK

	A) SUPERFICIAL LAYER OF BACK MUSCLES	
	1. TRAPEZIUS	**2. LATISSIMUS DORSI**
Origin	**a.** External occipital protuberance (skull) **b.** Superior nuchal line (medial 1/3) **c.** Ligamentum nuchae **d.** Spine of C7 **e.** All thoracic spines & their supraspinous ligaments	**a.** Outer lip of iliac crest (post part) **b.** Thoraco-lumbar fascia **c.** Lower 6 thoracic Spines & their supraspinous ligaments **d.** Lower 3-4 ribs **e.** Back of inferior angle of scapula
Insertion	**a.** **Upper fibers:** → Lateral 1/3 of clavicle (posterior border) **b.** **Middle fibers:** → Medial border of Acromion process → Upper lip of crest of Spine of scapula **c.** **Lower fibers:** → Tubercle on lower lip of crest of Spine of scapula	◇ Floor of bicipital groove of humerus
Nerve supply:	◇ Spinal accessory nerve	◇ Thoracodorsal N (N to latissimus dorsi)
Action	**1.** **Upper fibers:** → **Elevation** of scapula & shoulder **2.** **Lower fibers:** → **Depression** of scapula & shoulder **3.** **Middle fibers:** → **Retraction** of scapula **4.** **Upper & Lower fibers:** Act together in → **Upward rotation** of scapula	**1.** **Extension, Adduction & Medial rotation** → raises body toward arms during climbing **2.** **Help in violent expiratory movements** → (cough & sneeze)

	LEVATOR SCAPULAE	RHOMBOID MINOR	RHOMBOID MAJOR
Origin	◇ Transverse processes of **Upper 4 cervical vertebrae**	◇ Ligamentum nuchae ◇ **Spines of C7 & T1**	◇ **Spines of 2nd, 3rd, 4th & 5th** thoracic vertebrae
Insertion	◇ Back of medial border of scapula → **from upper angle to the spine**	◇ Back of medial border of scapula → **Opposite the spine**	◇ Back of medial border of scapula → **from spine to inferior angle**
N. supply	◇ Nerve to rhomboids **(Dorsal scapular N (C5))**		
Action	1. **Elevation & Retraction** of scapula 2. **Depression** of shoulder (downward rotation of scapula)		

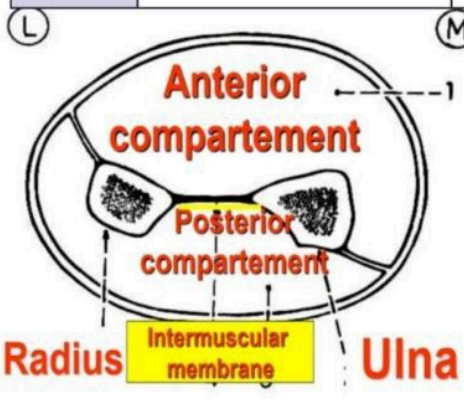
MUSCLES OF THE SHOULDER (SCAPULAR) REGION

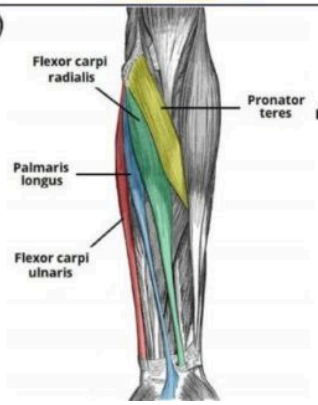
	1. Deltoid	2. Rotator cuff muscles				3. Teres Major
		Subscapularis	Supraspinatus	Infraspinatus	Teres Minor	
Origin	1. **Ant. Fibers:** Lateral 1/3 of clavicle "Anterior border". 2. **Middle Fibers**: Lateral border of Acromion process 3. **Post. Fibers:** Lower lip of crest of spine of scapula.	Subscapular fossa.	Supraspinous fossa.	Infraspinous fossa.	Upper 2/3 of lateral border of the scapula.	Lower 1/3 of lateral border of the scapula.
Insertion	**Deltoid tuberosity** of the humerus.	**Lesser tuberosity** of humerus.	**Upper impression**	**Middle impression**	**Lower impression**	Medial lip of **Bicipital groove**.
			of **Greater tuberosity** of the humerus.			
Nerve supply	Axillary nerve	Upper & Lower subscapular	Suprascapular nerve		Axillary nerve	Lower subscapular
Action	1. **Anterior fibers:** Flexion and Medial rotation of the arm. 2. **Posterior fibers:** Extension and Lateral rotation of the arm. 3. **Middle fibers:** Abduction of arm from (15 – 90)	Medial rotation of the arm.	Initiates Abduction of arm from (0- 15).	Lateral rotation of the arm. infra → Main lateral rotator		Extension, Adduction and Medial rotation of the arm.
		Steadies the head of the humerus in the glenoid cavity.				

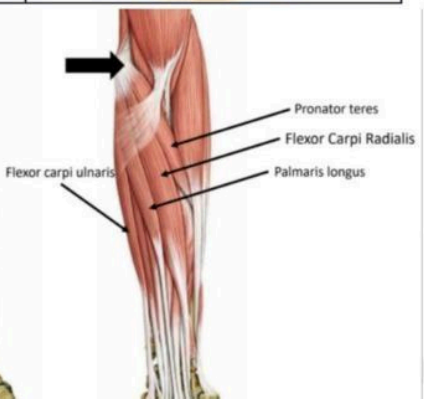
MUSCLES OF THE FOREARM

ANTERIOR COMPARTMENT "FLEXOR GROUP"

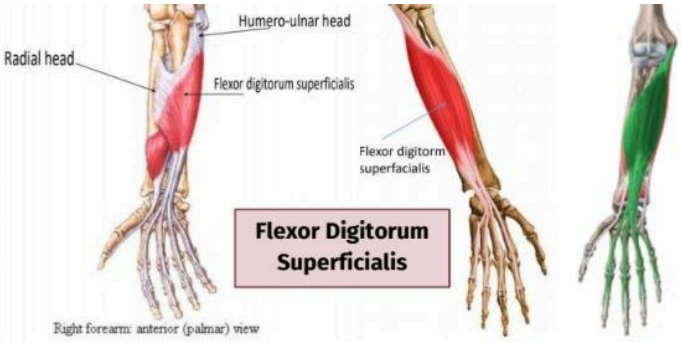
	SUPERFICIAL GROUP			
	1. PRONATOR TERES	2. FLEXOR CARPI RADIALIS	3. PALMARIS LANGUS	4. FLEXOR CARPI ULNARIS
Origin	Humeral head → Common flexor origin: from the Front of medial epicondyle			
	◇ Ulnar head → Deep head	----------		◇ Ulnar head → Deep head
Insertion	◇ Middle of lateral surface of radius.	◇ 2nd & 3rd metacarpal bones.	1. Flexor retinaculum. 2. Palmar aponeurosis	1. Pisiform bone 2. Hamate 3. 5th metacarpal bones.
N. supply	◇ Median nerve.			◇ Ulnar nerve
Action	◇ Pronation of forearm	◇ Flexion & abduction of wrist j.	◇ Flexion of wrist joint.	◇ Flexion & adduction of wrist j.



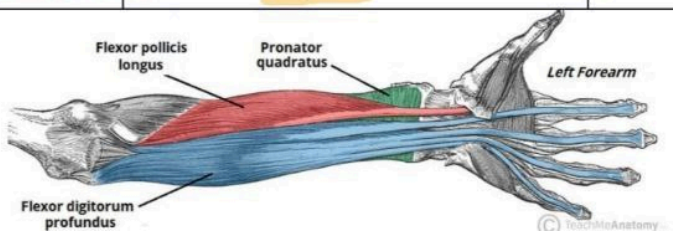




	Flexor Digitorum Superficialis
Origin	◇ Humero-ulnar head: → Common flexor origin → Ulna ◇ Radial head
Insertion	◇ Middle phalanges of medial 4 fingers.
N. supply	◇ Median nerve
Action	◇ Flexion of metacarpophalangeal & proximal interphalangeal (PIP) joints of medial 4 fingers.



	Deep Group		
	1. Flexor Digitorum Profundus	2. Flexor Pollicis Longus	3. Pronator Quadratus
Origin	◇ Anterior & medial surface of Ulna	◇ Anterior surface of Radius	◇ Lower part of the front of Ulna.
Insertion	◇ Distal phalanges of medial 4 fingers.	◇ Distal phalanx of thumb	◇ Lower part of the front of Radius
N. supply	◇ Medial 1/2: Ulnar nerve ◇ Lateral 1/2: Median nerve	◇ Median nerve	
Action	◇ Flexion of all joints of medial 4 fingers.	◇ Flexion of all joints of thumb.	◇ Pronation of radioulnar joint



Posterior compartment "Extensor Group"

	Superficial group						
	Brachioradialis	Extensor Carpi Radialis Longus	Extensor Carpi Radialis Brevis	Extensor Digitorum	Extensor Digiti Minimi	Extensor Carpi Ulnaris	Anconeus
Origin	**Upper 2/3** of lateral Supracondylar ridge.	**Lower 1/3** of lat. Supracondylar ridge.	**Common extensor origin:** from the Front of lateral epicondyle ----------			Posterior border of ulna.	Back of lat. epicondyle.
Insertion	Lower end of radius just above styloid process.	2nd metacarpal bone	3rd metacarpal bone	Middle & Distal phalanges of **Medial 4 fingers** through their extensor expansion	Extensor expansion of **Little finger**	5th metacarpal bone	Olecranon process
N. supply	Radial nerve						
Action	1. Brings supinated or pronated forearm into **mid -prone** position. 2. Flexion of elbow joint in **mid-prone** position	Extension & Abduction of Wrist joint		Extension of **Medial 4 fingers**	Extension of **Little finger**.	Extension & Adduction of Wrist joint.	Extension of Elbow joint

	Deep group				
	Supinator	**Abductor Pollicis Longus**	**Extensor Pollicis Brevis**	**Extensor Pollicis Longus**	**Extensor indicis.**
Origin	1. Supinator crest. 2. Supinator fossa. 3. Lateral epicondyle. 4. Annular ligament.	**Posterior surface of**			
		Ulna & Radius.	**Radius**	**Ulna**	
Insertion	Upper 1/3 of radius.	1st metacarpal bone.	**Proximal**	**Distal**	Extensor expansion of index finger.
			Phalanx of thumb.		
N. supply	Radial nerve				
Action	Supination of forearm.	Abduction of the thumb.	Extension of the thumb.		Extension of the index