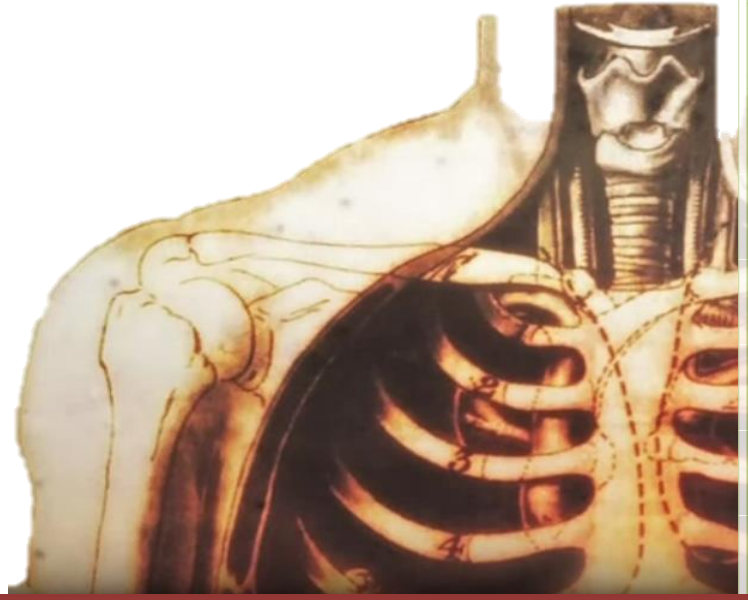
Anatomy Team
433

King Saud University
College of medicine
Musculoskeletal Block



MUSCLES Of The Upper Limb & Back

Done by:

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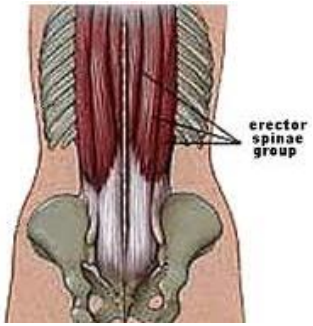
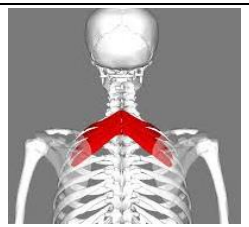
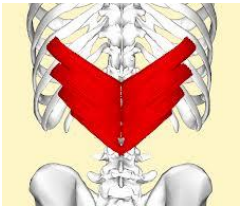
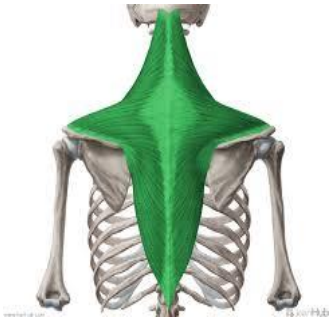
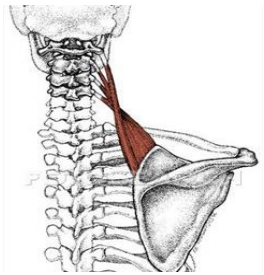
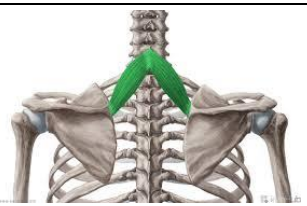
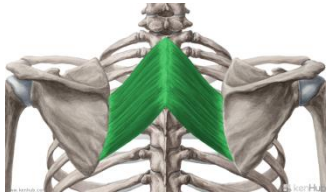
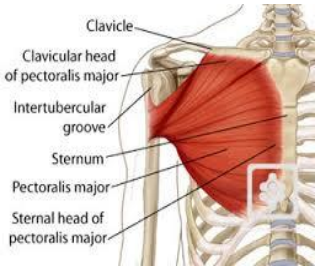
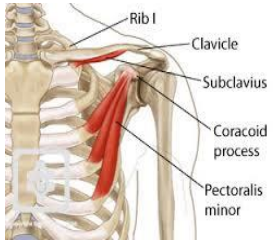
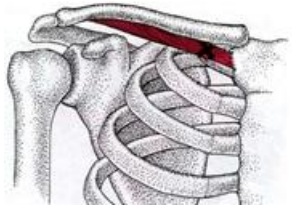
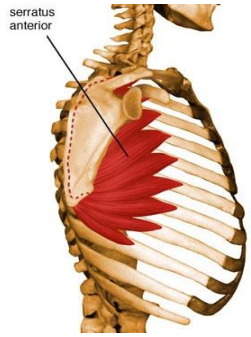
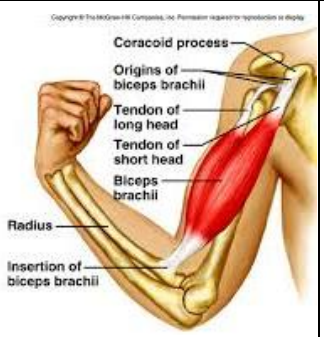
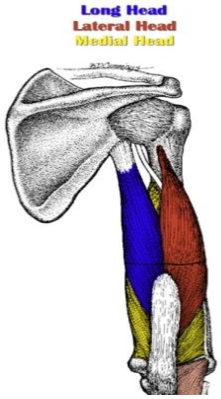
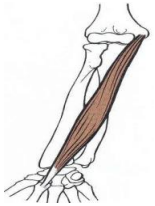
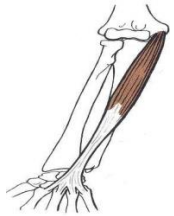
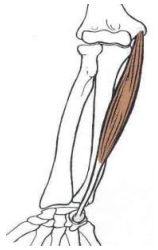
Omar Almutair

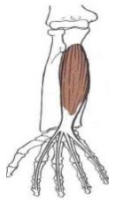
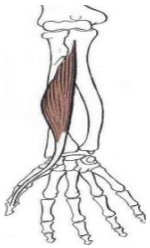
	REGION	MUSCLES NAME	PICTURE	ORIGIN	INSERTION	NERVE SUPPLY	ACTION	COMMENTS
1	**Back**	erector spinae (which is formed of 3 vertical columns (from lateral to medial: iliocostalis, longissimus & spinalis).		**sacrum**	**skull**	posterior rami of spinal nerves	extensors and rotators of head & vertebral column. Their tone is responsible for maintenance of normal curvature of vertebral column.	Deep group Intrinsic muscles
2	**Back**	Serratus posterior superior				anterior rami of thoracic spinal nerves	rib elevator	intermediate group Extrinsic muscles
3	**Back**	Serratus posterior inferior				anterior rami of thoracic spinal nerves	rib depressor	intermediate group Extrinsic muscles
4	**Back**	Trapezius.		Spines of cervical & thoracic vertebrae	lateral 1/3 of clavicle + acromion & spine of scapula	Spinal part of accessory (11th cranial) nerve	rotation of scapula during abduction of humerus above horizontal. *Upper fibers:* elevate scapula. *Middle fibers:* retract scapula *Lower fibers:* depress scapula.	Suprerficial group: Muscles connecting vertebral column to scapula Extrinsic muscles

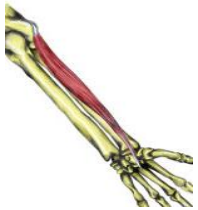
	REGION	MUSCLES NAME	PICTURE	ORIGIN	INSERTION	NERVE SUPPLY	ACTION	COMMENTS
5	**Back**	Levator scapulae.		cervical transverse processes	medial border of scapula.	dorsal scapular nerve.	elevates scapula.	Suprerficial group: Muscles connecting vertebral column to scapula Extrinsic muscles
6	**Back**	Rhomboid minor.		thoracic spines			retract scapula.	
7	**Back**	Rhomboid major.		thoracic spines				
8	**Back**	Latissimus dorsi.		spines of thoracic vertebrae.	bicipital groove of humerus.	thoracodorsal nerve.	extension, adduction & medial rotation of humerus (arm, shoulder joint).	Suprerficial group: Muscle connecting vertebral column to humerus Extrinsic muscles

	REGION	MUSCLES NAME	PICTURE	ORIGIN	INSERTION	NERVE SUPPLY	ACTION	COMMENTS
9	**pectoral**	**Pectoralis Major**		2 heads; Clavicular head: From; Medial ½ of the front of the clavicle. Sternocostal head: From; Sternum. Upper 6 costal cartilages. Aponeurosis of the external oblique muscle.	Lateral lip of bicipital groove.	Medial & lateral pectoral nerves	Adduction and medial rotation of the arm. Clavicular head helps in flexion of arm (shoulder).	
10	**pectoral**	**Pectoralis Minor**		From 3rd ,4th, & 5th ribs close to their costal cartilages	Coracoid process.	Medial pectoral nerve	Depression of the shoulder. Draw the ribs upward and outwards during deep inspiration.	
11	**pectoral**	**Subclavius**		From 1st rib at its costal cartilage.	Subclavian groove in the middle 1/3 of the inferior surface of clavicle	Nerve to subclavius from upper trunk of brachial plexus	Fixes the clavicle during movement of shoulder joint.	
12	**pectoral**	**Serratus anterior**		**Upper eight ribs**.	anterior aspect of the medial border and inferior angle of scapula.	Long thoracic nerve.	Draws the scapula forward in boxing, (protrusion). Rotates scapula outwards in raising the arm above 90 degree.	

	REGION	MUSCLES NAME	PICTURE	ORIGIN	INSERTION	NERVE SUPPLY	ACTION	COMMENT
13	**The Arm**	**Biceps Brachii**		Two heads: **Long head** from supraglenoid tubercle of scapula (intracapsular) **Short head** from the tip of Coracoid process of scapula **Two heads join in the middle of the arm**	in the posterior part of the **radial tuberosity**, and into the deep fascia of the medial aspect of the forearm through **bicipital aponeurosis**	Musculocutaneous	Strong supinator of the forearm (used in screwing) Powerful flexor of elbow Weak flexor of shoulder, produce supination	Anterior Fascial Compartment **(The lateral and medial intermuscular septa divide the distal part of the arm into: Anterior & Posterior compartments)**
14	**The Arm**	**Coracobrachialis**		Tip of the coracoid process	Middle of the medial side of the shaft of the humerus	Musculocutaneous	Flexor & a weak adductor of the arm	Anterior Fascial Compartment
15	**The Arm**	**Brachialis**		front of the lower half of humerus	anterior surface of coronoid process of ulna	Musculocutaneous & Radial	Strong flexor of the forearm	Anterior Fascial Compartment
16	**The Arm**	**Triceps brachii**		Three heads **Long head** from infrglenoid tubercle of the scapula **Lateral head** from the upper half of the posterior surface of the shaft of humerus above the spiral groove **Medial head** from the lower half of the posterior surface of the shaft of humerus below the spiral groove	Common tendon inserted into the upper surface of the olecranon process of ulna	Radial nerve	Strong extensor of the elbow joint	Muscle of the Posterior Compartment

	REGION	MUSCLES NAME	PICTURE	ORIGIN	INSERTION	NERVE SUPPLY	ACTION	COMMENTS
17	**Forearm**	**Pronator teres**		common flexor origin (front of medial epicondyle).	middle of lat. surface of radius	median nerve	pronation & flexion of forearm .	**FLEXOR GROUP Superficial** **All cross the wrist joint except one, pronator teres**
18	**Forearm**	**Flexor carpi radialis**			Base of 2nd metacarpal bone	median nerve	Flexion & abduction of the hand	
19	**Forearm**	**Palmaris longus**			into the flexor retinaculum & palmar aponeurosis.	median nerve	Flexes hand & tightens palmer aponeurosis	
20	**Forearm**	**Flexor carpi ulnaris**			Pisiform, hook of hamate 5th metacarpal bone	Ulnar nerve	Flexion and adduction of the hand.	
21	**Forearm**	**Flexor digitorum superficialis**		Common flexor origin, Coronoid process of ulna; Anterior surface of radius	base of middle phalanges of medial 4 fingers.	**Median Nerve**	Flexes middle and proximal phalanges of medial 4 fingers, and the hand	**FLEXOR GROUP Intermediate**

	REGION	MUSCLES NAME	PICTURE	ORIGIN	INSERTION	NERVE SUPPLY	ACTION	COMMENTS
22	**Forearm**	**Flexor digitorum profundus**		above ulna	bases of distal phalanges of medial 4 digits	**Median Nerve except medial half are innervated by the ulnar nerve**	Flexes distal phalanges of medial 4 digits.	**FLEXOR GROUP Deep**
23	**Forearm**	**Flexor pollicis longus**		above radius	Base of distal phalanx of thumb	**Median Nerve**	flexes interphalangea, metacarpophalangeal & carpometacarpal joints of thumb.	
24	**Forearm**	**Pronator quadratus**		above the ulna and radius	distal fourth of ant. surface of radius	**Median Nerve**	<u>pronates</u> forearm (primemover), helps to <u>hold the bones</u> together.	
25	**Forearm**	**Brachioradialis**		Lateral supracondylar ridge of humerus	Base of styloid process of radius	radial nerve itself	Flexes forearm; (elbow). Rotates forearm to the midprone position	Posterior (Extensor) Compartment Superficial Lateral group All cross the wrist EXCEPT, one, brachioradialis
26	**Forearm**	**Extensor carpi radialis longus**			Posterior surface of base of 2nd metacarpal bone		Extends and abducts hand at wrist joint	

	REGION	MUSCLES NAME	PICTURE	ORIGIN	INSERTION	NERVE SUPPLY	ACTION	COMMENTS
27	**Forearm**	**Extensor carpi radialis brevis**		common extensor origin, (front of lateral epicondyle of the humerus	base of 3rd metacarpal bone	deep branch of radial nerve (purely motor nerve)		Posterior (Extensor) Compartment Superficial group All cross the wrist **Dorsal Extensor Expansion:** **It is formed on the dorsum of medial 4 fingers by: the union of the tendons of: Extensor digitorum, Extensor digiti minimi, Extensor indicis, palmar and dorsal interossei and lumbricals muscles.** **All these tendons unite to form one tendon which divides into 3 slips, a median one attached to middle phalanges and 2 lateral attached to the terminal phalanges.**
28	**Forearm**	**Extensor digitorum**			Extensor expansion of the medial 4 fingers.			
29	**Forearm**	**Extensor digiti minimi**			Extensor expansion of the little finger.			
30	**Forearm**	**Extensor carpi ulnaris**			Base of the 5th metacarpal bone.			
31	**Forearm**	**Anconeus**				radial nerve itself		

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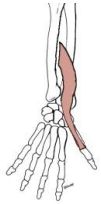
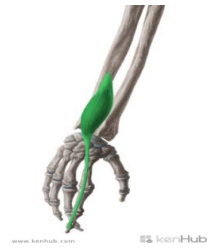
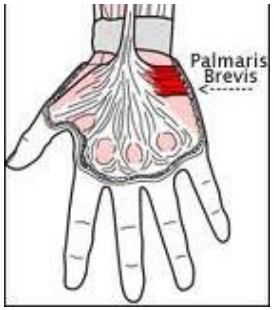
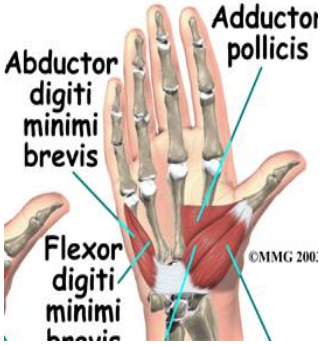
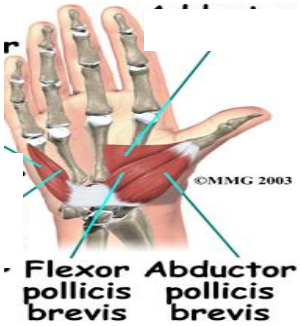
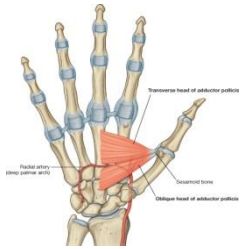
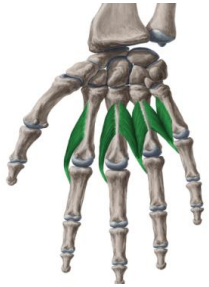
32	**Forearm**	**Supinator.**				**posterior interosseous nerve** (continuation Deep Branch of Radial Nerve) ***(PURELY MOTOR nerve***)		Posterior (Extensor) Compartment deep group
33	**Forearm**	**Abductor pollicis longus.**			thumb			
34	**Forearm**	**Extensor pollicis brevis.**						
35	**Forearm**	**Extensor pollicis longus.**						
36	**Forearm**	**Extensor indices**			index			

	REGION	MUSCLES NAME	PICTURE	ORIGIN	INSERTION	NERVE SUPPLY	ACTION	COMMENTS
37	**Hand**	**Palmaris Brevis**		Palmar Aponeurosis And Flexor Retinaculum	Skin of Palm	ulnar nerve (Superficial). Branch	Corrugation of skin to improve grip	
38	**Hand**	Abductor Digiti Minimi **Hypothenar Eminence**		Pisiform	Base of Proximal phalanges Of Little Finger	Deep branch of Ulnar	Abduction	
39	**Hand**	Flexor Digiti Minimi Brevis **Hypothenar Eminence**		Flexor Retinaculum			Flexion	
40	**Hand**	Opponens Digiti Minimi **Hypothenar Eminence**		Palmar surface of 5th metacarpal			Pulls the 5th metacarpal forward (Cup the palm)	

	REGION	MUSCLES NAME	PICTURE	ORIGIN	INSERTION	NERVE SUPPLY	ACTION	COMMENTS
41	**Hand**	**Abductor Pollicis Brevis** ***Thenar Eminence***		Flexor Retinaculum (Scaphd& Trapez)	Base of Proximal phalanges Of Thumb	Median Nerve	Abduction	
42	**Hand**	**Flexor Pollicis Brevis** ***Thenar Eminence***		Flexor Retinaculum			Flexion	
43	**Hand**	**Oppenens Pollicis** ***Thenar Eminence***			Lateral part of 1ST metacarpal		Opposition	
44	**Hand**	**Adductor Pollicis**		*Oblique Head: Ant. bases of 2nd &3rd meta* *Trans H: 3rd meta*	Medial side of base of prox.ph of thumb	Deep branch of Ulnar nerve	addiction	
45	**Hand**	**Lumbrical Muscles (4 MUSCLES)**		Tendons of Flex.dig. profundus	Extensor Expansion of medial four fingers	1ST & 2ND (Lateral two) : Median N. 3RD & 4TH : Ulnar N (Deep branch)	Flex metacarpophal angeal joints and extend interphalangeal joints of fingers Except thumb	

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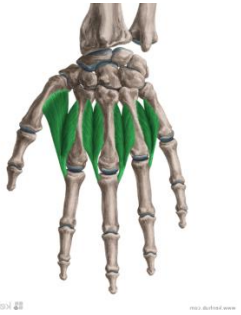
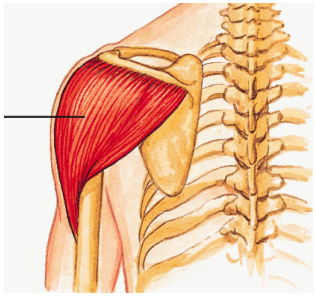
46	**Hand**	**Palmar Interossei (4 MUSCLES)**		1st : Base of 1st metacarpal. Other three: Ant. Surface of Shafts of 2nd , 4rd & 5th metacarpals.	Proximal phalanges of thumb ,index, ring, & little fingers and Extensor expansion	Ulnar nerve	Adduction of fingers toward center of the 3rd one.	
47	**Hand**	**Dorsal Interossei (4 MUSCLES)**		Contiguous sides of shafts of Metacarpals	Proximal Phalang of index, ring ,mid finger & Extensor expansion	Ulnar nerve	Abduction of fingers away from the 3rd one.	
48	**Shoulder**	***Deltoid.***		lateral 1/3 of clavicle + acromion and spine of scapula	deltoid tuberosity of humerus.	axillary nerve	***Anterior fibers:*** flexion & medial rotation of humerus (arm, shoulder joint). ***Middle fibers:*** abduction of humerus from 15° - 90 °. ***Posterior fibers:*** extension & lateral rotation of humerus	A triangular muscle, forms the contour of the shoulder.

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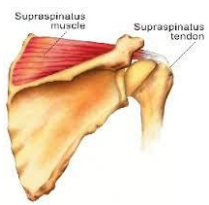
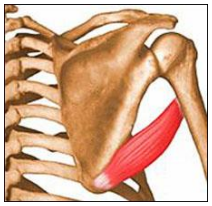
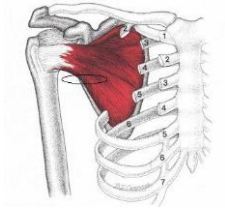
49	**Shoulder**	***Supraspinatus.***		supraspinous fossa.	greater tuberosity of humerus.	suprascapular nerve.	abduction of humerus from 0° - 15	
50	**Shoulder**	***Infraspinatus.***		infraspinaous fossa.			lateral rotation of humerus	
51	**Shoulder**	***Teres minor.***		lateral border of scapula	greater tuberosity of humerus	axillary nerve.	lateral rotation of humerus.	
52	**Shoulder**	***Teres major.***		lateral border of scapula	bicipital groove of humerus	lower subscapular nerve	extension, adduction & medial rotation of humerus	
53	**Shoulder**	***Subscapularis.***		subscapular fossa	lesser tuberosity of humerus	upper & lower subscapular nerves.	medial rotation of humerus.	