

Ankle Muscles

Ant	Post	Lg	Sm	Muscle	Origin	Insertion	Action
78		29	33	Tibialis anterior			Dorsiflex & invert foot
84		31	44	Extensor hallucis longus			Dorsiflex foot & extend hallux
77	65	30	34	Extensor digitorum longus			Dorsiflex foot & extend toes 2-5
76	62	32	35	Fibularis longus (Peroneus longus)			Plantarflex & evert foot
82	63	33	36	Fibularis brevis (Peroneus brevis)			Plantarflex & evert foot
81	61	37	39	Soleus			Plantarflex foot
		42	40	Tibialis posterior			Plantarflex & invert foot
		41	43	Flexor hallucis longus			Plantarflex & invert foot; flex hallux
		40	42	Flexor digitorum longus			Plantarflex & invert foot; flexes digits II-V

Superior and inferior extensor retinaculum 56

Flexor retinaculum

Eye Muscles

Muscle	Origin	Insertion	Action
Superior rectus			Eye looks superior
Inferior rectus			Eye looks inferior
Lateral rectus			Eye looks lateral
Medial rectus			Eye looks medial
Superior oblique			Eye looks inferior and lateral
Inferior oblique			Eye looks superior and lateral

Head Muscles

Skull	Ant	Post	Head	Muscle	Origin	Insertion	Action
1	1	1	24	Frontalis	(Galea) Epicranial aponeurosis	Skin of eyebrows & nose bridge	Elevate eyebrows/ wrinkle skin on forehead
24		11	25	Occipitalis	Superior nuchal line of occipital bone	(Galea) Epicranial aponeurosis	Tense scalp
3	2	5	29	Orbicularis oculi	Bony Orbit	Eyelids	Close eyelids
10 9	10 8	6	36	Zygomaticus major & minor	Zygomatic bone	Angle of mouth	Elevate angle of mouth (smile)
17			38	Risorius	Fascia of masseter	Angle of mouth	Draw angle of mouth to side
14	18		39	Depressor anguli oris	Mandible	Angle of mouth	Depress angle of mouth
12	9		35	Orbicularis oris	Maxillae & mandible	Skin surrounding lips	Compress & purse lips (kiss)
11	15	9	37	Buccinator	Maxillae & mandible	Angle of mouth- orbicularis oris	Compress check
19	16	8	42	Masseter	Zygomatic arch	Ramus of mandible	Elevate mandible
18				Temporalis	Temporal line of skull	Coronoid process of mandible	Elevate mandible
				Platysma	Fascia of chest	Mandible & skin on cheek	Tense skin on neck Depresses mandible & lower lip

Hip Muscles(Thigh=Femur)

Ant	Post	Lg	Sm	Muscle	Origin	Insertion	Action
61 - medial portion		2	25	Psoas major	Anterior T12 – L5 vertebrae	Lesser trochanter of femur	Flex hip
61 - lateral portion		1	25	Iliacus	Iliac fossa	Lesser trochanter of femur	Flex hip
	49	5	11	Gluteus maximus	Ilium,sacrum & coccyx	Proximal posterior femur & iliotibial tract	Extend & laterally rotate hip
59	48	6	12	Gluteus medius	Lateral surface of ilium	Greater trochanter of femur	Abduct & medially rotate hip
		7		Gluteus minimus	Lateral surface of ilium	Greater trochanter of femur	Abduct & medially rotate hip
60	51	3	18	Tensor fasciae latae	Iliac crest	Iliotibial tract	Flex, abduct & medially rotate hip (supports lateral knee)
		9	13	Piriformis	Anterolateral sacrum	Greater trochanter of femur	Abduct & laterally rotate hip (hip stability)
		8	15	Obturator internus	Obturator foramen	Greater trochanter of femur	Laterally rotate hip (hip stability)
69	53	22	28	Adductor magnus	Inferior ramus of pubis & ischial tuberosity	Linea aspera of femur	Adduct & laterally rotate hip
64		19	26	Adductor longus	Inferior ramus of pubis	Middle of linea aspera of femur	Adduct & medially rotate hip
63		18		Pectineus	Superior ramus of pubis	Proximal medial surface of femur	Flex, adduct & medially rotate hip

Hip and Knee Muscles (Thigh=femur; Leg=tibia/fibula)

Ant	Post	Lg	Sm	Muscle	Origin	Insertion	Action
65	54	20	27	Gracilis	Inferior ramus of pubis	Proximal medial surface of tibia	Adduct, medially rotate hip & flex knee
66		13	24	Sartorius	Anterior superior iliac spine	Proximal medial surface of tibia	Flex, laterally rotate, abduct hip and flex knee
68		14	20	Rectus femoris	Anterior inferior iliac spine	Tibial tuberosity	Flex hip & extend knee
72	56	27	30	Semitendinosus	Ischial tuberosity	Proximal medial surface of tibia	Extend, medially rotate hip & flex knee
71	55	28	29	Semimembranosus	Ischial tuberosity	Proximal medial surface of tibia	Extend, medially rotate hip & flex knee
	57	25	31	Biceps femoris long head	Ischial tuberosity	Head of fibula & lateral condyle of tibia	Extend, laterally rotate hip & flex knee
	58	26	32	Biceps femoris short head	Linea aspera of femur	Head of fibula & lateral condyle of tibia	Flex knee
67	52	17	21	Vastus lateralis	Greater trochanter & linea aspera of femur	Tibial tuberosity	Extend knee
70		15	23	Vastus medialis	Linea aspera of femur	Tibial tuberosity	Extend knee
		16	22	Vastus intermedius	Anterior surface of femur	Tibial tuberosity	Extend knee
		39	41	Popliteus	Lateral condyle of femur	Posterior proximal tibia	Flex & medially rotate knee
80	60	34 35	37 38	Gastrocnemius	Medial & lateral condyles of femur	Calcaneus	Flex knee & plantar flex foot

Scapula Muscles

Ant	Post	Muscle	Origin	Insertion	Action
		Pectoralis minor	Anterior surface of ribs 3-5	Coracoid process of scapula	Depress, protract & inferiorly rotate scapula
28	13 14	Trapezius			Elevate, depress, superiorly rotate, retract & adduct scapula
55		Serratus anterior	Anterior surface of ribs 1-9	Anterior surface of vertebral border of scapula	Protract & inferiorly rotate scapula
	21	Rhomboid major	Spinous processes of superior thoracic vertebrae	Vertebral border of scapula inferior to spine	Adduct & inferiorly rotate scapula
		Rhomboid minor	Spinous processes of vertebrae C7-T1	Vertebral border of scapula at spine	Adduct & inferiorly rotate scapula
23		Levator scapulae	Transverse processes of vertebrae C1-C4	Vertebral border of scapula superior to spine	Elevate & adducts scapula

Shoulder and Elbow Muscles(Arm=Humerus; Forearm=Radius/Ulna)

Ant	Post	Sm	Muscle	Origin	Insertion	Action
34	23	12	Biceps brachii long head	Supraglenoid tubercle of scapula	Radial tuberosity	Flex shoulder & elbow
34		13	Biceps brachii short head	Coracoid process of scapula	Radial tuberosity	Flex shoulder & elbow
35	24	14	Brachialis	Anterior distal humerus	Coronoid process of ulna (ulnar tuberosity)	Flex elbow
33	22	17	Triceps brachii long head	Infraglenoid tubercle of scapula	Olecranon process of ulna	Extend shoulder & elbow
	22	16	Triceps brachii lateral head	Posterior proximal humerus	Olecranon process of ulna	Extend elbow
		18	Triceps brachii medial head	Posterior distal humerus	Olecranon process of ulna	Extend elbow
38	36	19	Brachioradialis	Lateral distal humerus	Styloid process of radius	Flex elbow
36	26	22	Pronator teres	Medial epicondyle of humerus & coronoid process of ulna	Lateral mid-shaft of radius	Pronate forearm
		34	Supinator	Lateral epicondyle of humerus	Anterolateral proximal radius	Supinate forearm

Shoulder Muscles (Arm=Humerus)

Ant	Post	Sm	Muscle	Origin	Insertion	Action
31			Pectoralis major	Clavicle, sternum & costal cartilage of ribs 2-6	Greater tubercle of humerus	Flex, adduct & medially rotate shoulder
32		15	Coracobrachialis	Coracoid process of scapula	Medial surface of humerus	Flex & adduct shoulder
30	16	10	Deltoid	Clavicle, acromion process & spine of scapula	Deltoid tuberosity of humerus	Flex, extend, abduct, medially & laterally rotate shoulder
54	43		Latissimus dorsi	Spinous processes of T8-L5 & Lumbodorsal fascia	Anterior humerus	Extend, adduct & medially rotate shoulder
		6	Supraspinatus	Supraspinous fossa of scapula	Greater tubercle of humerus	Abduct shoulder (stabilize shoulder joint)
	18 19	7	Infraspinatus	Infraspinous fossa of scapula	Greater tubercle of humerus	Laterally rotate shoulder (stabilize shoulder joint)
		5	Subscapularis	Subscapular fossa of scapula	Lesser tubercle of humerus	Medially rotate shoulder (stabilize shoulder joint)
	17	8	Teres minor	Axillary border of scapula	Greater tubercle of humerus	Laterally rotate & adduct shoulder (stabilize shoulder joint)
	20	9	Teres Major	Inferior angle of scapula	Lesser tubercle of humerus	Extend, adduct & medially rotate shoulder

Torso Muscles

Ant	Post	Muscle	Origin	Inserion	Action
22	10	Sternocleidomastoid	Manubrium & clavicle	Mastoid process of temporal bone	Flex, lateral flex & rotate cervical vertebral column
		Erector Spinae Group: Spinalis			Extend vertebral column & lateral flex neck
		Longissimus			Extend vertebral column & lateral flex neck
		Iliocostalis			Extend vertebral column & lateral flex neck
		Intertransversarii	Transverse process of each vertebrae	Transverse process of superior vertebrae	Lateral flex vertebral column
		Interspinales	Spinous process of each vertebrae	Spinous process of superior vertebrae	Extend vertebral column
		Multifidus	Sacrum, Ilium & transverse process of vertebrae C3-L5	Spinous process of superior vertebrae	Extend & rotate vertebral column (stabilization & adjustments to vertebral column)
57		Rectus Abdominis	Pubic crest	Xiphoid process & costal cartilage of ribs 5-7	Flex vertebral column (compress abdominopelvic cavity)
56	45	External oblique	Ribs 5-12	Linea alba & anterior iliac crest	Flex, lateral flex & rotate vertebral column (compress abdominopelvic cavity)
	46	Internal oblique	Iliac crest & lumbodorsal fascia	Linea alba, pubis & ribs 9-12	Flex, lateral flex & rotate vertebral column (compress abdominopelvic cavity)
		Transversus abdominis	Iliac crest & cartilage of ribs 6-12	Linea alba & pubis	Compress abdominopelvic cavity & stabilizes vertebral column
		External intercostals	Inferior border of ribs	Superior border of rib inferior to rib of origin	Elevate ribs (breathing)
		Internal intercostals	Superior border of ribs	Inferior border of rib superior to rib of origin	Depress ribs (breathing)
		Diaphragm			Depress ribs, expand thoracic cavity & compress abdominopelvic cavity (breathing)

Wrist Muscles

Ant	Post	Sm	Muscle	Origin	Insertion	Action
41	35	23	Flexor carpi radialis			Flex wrist & abduct hand
42	34	24	Palmaris longus			Flex wrist
43	33	25	Flexor carpi ulnaris			Flex wrist & adduct hand
37	25	20	Extensor carpi radialis longus			Extend wrist & abduct hand
40	31	30	Extensor digitorum			Extend wrist & finger joints
44	32	32	Extensor carpi ulnaris			Extend wrist & adduct hand

Flexor retinaculum (Palmar carpal ligament) 46

Extensor retinaculum 38

Clinical Info:

Carpal tunnel syndrome

Shoulder Stabilization