Head

Scalp/Eyelid

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------------|---|-----------------------------------|--|--|-----------------------------|------------------------------------|
| occipitofrontalis | 2 occipital bellies and 2 frontal bellies. | galea aponeurotica | | facial nerve | raises the eyebrows | |
| occipitalis | superior nuchal line of the occipital bone mastoid part of the temporal bone | galea aponeurotica | occipital artery | posterior auricular nerve (facial nerve) | | |
| frontalis | galea aponeurotica | mastoid process | ophthalmic artery | facial nerve | wrinkles eyebrow | |
| orbicularis oculi | frontal bone; medial palpebral ligament; lacrimal bone | lateral palpebral raphe | ophthalmic, zygomatico- orbital, angular | zygomatic branch of facial | closes eyelids | levator palpebrae superioris |
| corrugator supercilii | superciliary arches | forehead skin, near eyebrow | | facial nerve | wrinkles forehead | |
| depressor supercilii | medial orbital rim | medial aspect of bony orbit | | facial nerve | Depresses the eyebrow | |

Extraocular muscles

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|------------------------------------|---|--|---|--------------------------------|---|--|
| levator palpebrae superioris | sphenoid bone | tarsal plate, upper eyelid | ophthalmic artery | oculomotor nerve | retracts//elevates eyelid | orbicularis oculi muscle |
| superior tarsal | underside of levator palpebrae superioris | superior tarsal plate of the eyelid | sympathetic nervous system | raise the upper eyelid | | |
| orbicularis oculi | frontal bone, medial palpebral ligament, and lacrimal bone | lateral palpebral raphe | ophthalmic artery, zygomatico- orbital artery, angular artery | facial nerve | closes the eyelids | levator palpebrae superioris muscle |
| Rectus mus | cles | | | | | |
| superior | annulus of Zinn at the orbital apex | 7.5 mm superior to the corneal limbus | | oculomotor nerve | elevates, adducts, and rotates medially the eye | |
| inferior | 6.5 mm inferior to the corneal limbus | | inferior branch of oculomotor nerve | depression and adduction | | |
| medial | 5.5 mm medial to the corneal limbus | | inferior division of the oculomotor nerve | adducts the eyeball | | |

| lateral | 7 mm temporal to the corneal limbus | | abducens nerve | abducts the eyeball | | |
|------------|---|---|--|---------------------|--|--|
| Oblique mu | iscles | | | | | |
| superior | annulus of Zinn at the orbital apex, medial to optic canal | outer posterior quadrant of the eyeball | lateral muscular branch of the ophthalmic artery | trochlear nerve | primary: intorsion. secondary:abduct (laterally rotate) and depress the eyeball | |
| inferior | orbital surface of the maxilla, lateral to the lacrimal groove | laterally onto the eyeball, deep to the lateral rectus, by a short flat tendon | | oculomotor nerve | extorsion, elevation, abduction | |

Intraocular

Ear

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-------------------|------------------------|--|--------------------------------|--|---|------------|
| auriculares | galeal aponeurosis | front of the helix, cranial surface of the pinna | | facial nerve | (Wiggle ears) | |
| temporoparietalis | auriculares muscles | galea aponeurotica | | | | |
| stapedius | | neck of stapes | | facial nerve | control the amplitude of sound waves to the inner ear | |
| tensor tympani | Eustachian tube | handle of the malleus | superior tympanic artery | medial pterygoid nerve from mandibular nerve | tensing the tympanic membrane | |

Nose

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------|---|--|--------|---|--|------------|
| procerus | from fascia over the lower of the nasal bone | skin of the lower part of the forehead between the eyebrows | | buccal branch of the facial nerve | Draws down the medial angle of the eyebrow, giving expressions of frowning | |
| nasalis | maxilla | nasal bone | | Compresses bridge, depresses tip of nose, elevates corners of nostrils | | |
| dilatator naris | margin of the nasal notch of the maxilla, greater and lesser alar cartilages | skin near the margin of the nostril | | dilation of nostrils | | |
| depressor | incisive fossa of the | nasal septum and back part of the | | depression of nasal | | |

| septi nasi | maxilla | alar part of nasalis muscle | | septum | |
|---|---------|--------------------------------|------------------------------|---|--|
| levator labii superioris alaeque nasi | maxilla | nostril and upper lip | superior labial artery | dilates the nostril; elevates the upper lip and wing of the nose | |

Mouth

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--|---|--|--------------------------------------|--|--|------------|
| levator anguli oris (caninus) | maxilla | modiolus of mouth | facial artery | facial nerve | smile (elevates angle of mouth) | |
| depressor anguli oris (triangularis) | tubercle of mandible | modiolus of mouth | facial artery | mandibular branch of facial nerve | depresses angle of mouth | |
| levator labii superioris | medial infra-orbital margin | skin and muscle of the upper lip (labii superioris) | superior labial artery | buccal branch of the facial nerve | Elevates the upper lip | |
| depressor labii inferioris | oblique line of the mandible, between the symphysis and the mental foramen | integument of the lower lip, orbicularis oris fibers, its fellow of the opposite side | inferior labial artery | facial nerve | Depresses the lower lip | |
| mentalis | anterior mandible | chin | | mandibular branch of facial nerve | elevates and wrinkles skin of chin, protrudes lower lip | |
| buccinator | alveolar processes of the maxillary bone and mandible, pterygomandibular raphe | in the fibres of the orbicularis oris | buccal artery | buccal branch of the facial nerve | compress the cheeks against the teeth (blowing), mastication. | |
| orbicularis oris | maxilla and mandible | skin around the lips | | pucker the lips | | |
| risorius | parotid fascia | modiolus | facial artery | draw back angle of mouth | | |
| Zygomatic m | uscles | | | | | |
| major | anterior of zygomatic bone | modiolus of mouth | facial artery | buccal branch of the facial nerve | draws angle of mouth upward and laterally | |
| minor | zygomatic bone | skin of the upper lip | facial nerve, buccal branch | elevates upper lip | | |

Mastication

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-------------|--|---|--|--|---|--------------------|
| masseter | zygomatic arch and maxilla | coronoid process and ramus of mandible | masseteric artery | masseteric nerve (V3) | elevation (as in closing of the mouth) and retraction of mandible | platysma muscle |
| temporalis | temporal lines on the parietal bone of the skull | coronoid process of the mandible | deep temporal | third branch (mandibular nerve) of the trigeminal nerve | elevation and retraction of mandible | |
| Pterygoid 1 | muscles | | | | | |
| lateral | great wing of sphenoid and pterygoid plate | condyle of mandible | pterygoid branches of maxillary artery | external pterygoid nerve from the mandibular nerve | depresses mandible | |
| medial | deep head: medial side of lateral pterygoid plate behind the upper teeth superficial head: pyramidal process of palatine bone and maxillary tuberosity | medial angle of the mandible | mandibular nerve via nerve to medial pterygoid | elevates mandible, closes jaw, helps lateral pterygoids in moving the jaw from side to side | | |

Tongue

Extrinsic

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|----------------|---|--|-------------------|----------------------|--|---|
| genioglossus | Superior part of mental spine of mandible (symphysis menti) | Dorsum of tongue and body of hyoid | Lingual artery | hypoglossal nerve | Complex - Inferior fibers protrude the tongue, middle fibers depress the tongue, and its superior fibers draw the tip back and down | |
| hyoglossus | hyoid | side of the tongue | | hypoglossal nerve | depresses tongue | |
| chondroglossus | lesser cornu and body of the hyoid bone | intrinsic muscular fibers of the tongue | | hypoglossal nerve | depresses tongue (some consider this muscle to be part of hyoglossus) | |
| styloglossus | Styloid process of temporal bone | tongue | | Hypoglossal nerve | elevates and retracts tongue | inferior and middle fibers of genioglossus |
| | | | | vagus nerve | | |

| palatoglossus | palatine aponeurosis | tongue | and cranial accessory | raising the back part of the tongue | |
|---------------|-------------------------|--------|-----------------------|-------------------------------------|--|
| | | | nerve | | |

Intrinsic

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------------|--|--|--------|----------------------|--|------------|
| superior longitudinal | close to the epiglottis, from the median fibrous septum | edges of the tongue | | hypoglossal nerve | shortens, turns tip upward, turns lateral margins upward | |
| transversus | median fibrous septum | sides of the tongue | | hypoglossal nerve | narrows and elongates | |
| inferior longitudinal | root of the tongue | apex of the tongue | | Hypoglossal nerve | shortens, retracts, pulls tip downward | |
| verticalis muscle | dorsum of tongue | inferior surface borders of tongue | | hypoglossal nerve | flattens | |

Soft palate

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------------|---|---|---|--|--|------------|
| levator veli palatini | temporal bone, Eustachian tube | palatine aponeurosis | facial artery | vagus nerve | Aids in swallowing by elevating the soft palate | |
| tensor veli palatini | medial pterygoid plate of the sphenoid bone | | medial pterygoid of mandibular nerve | Aids in swallowing by controlling the tension of the soft palate | | |
| musculus uvulae | hard palate | | pharyngeal plexus | Moves and changes shape of the uvula | | |
| palatoglossus | palatine aponeurosis | tongue | | vagus nerve and cranial accessory nerve | Aids in respiration by raising the back part of the tongue | |
| palatopharyngeus | palatine aponeurosis and hard palate | upper border of thyroid cartilage (blends with constrictor fibers) | facial artery | vagus nerve and cranial accessory nerve | Aids in respiration by pulling the pharynx and larynx | |

Pharynx

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------|--------|-----------|--------|-------|--------|------------|
| | | | | | | |

| stylopharyngeus | temporal styloid process | thyroid cartilage (pharynx) | pharyngeal branches of ascending pharyngeal artery | glossopharyngeal nerve | elevate the larynx, elevate the pharynx, swallowing | |
|--------------------|---|---|--|---|---|--|
| salpingopharyngeus | cartilage of the Eustachian tube | posterior fasciculus of the pharyngopalatinus muscle | | vagus nerve and cranial accessory nerve | raise the nasopharynx | |
| Pharyngeal muscles | | | | | | |
| inferior | cricoid and thyroid cartilage | pharyngeal raphe | pharyngeal branches of ascending pharyngeal artery | external laryngeal branch of the vagus | Swallowing | |
| middle | hyoid bone | pharyngeal raphe | vagus nerve | Swallowing | | |
| superior | medial pterygoid plate, pterygomandibular raphé, alveolar process | pharyngeal raphe, pharyngeal tubercle | | vagus nerve | Swallowing | |

Larynx

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|----------------|--|---|--------|--|---|-------------------------------------|
| cricothyroid | anterior and lateral cricoid cartilage | inferior cornu and lamina of the thyroid cartilage | | external laryngeal branch of the vagus | tension and elongation of the vocal folds (has minor adductory effect) | |
| arytenoid | arytenoid cartilage on one side | arytenoid cartilage on opposite side | | recurrent laryngeal branch of the vagus | approximate the arytenoid cartilages (close rima glottidis) | |
| thyroarytenoid | inner surface of the thyroid cartilage (anterior aspect) | anterior surface of arytenoid cartilage | | recurrent laryngeal branch of the vagus | thickens the vocal folds and decreases length; also helps to adduct the vocal folds during speech | |
| Cricoarytenoid | muscles | | | | | |
| posterior | posterior part of the cricoid | muscular process of the arytenoid cartilage | | recurrent laryngeal branch of the vagus | abducts and laterally rotates the cartilage, pulling the vocal ligaments away from the midline and forward and so opening the rima glottidis | lateral cricoarytenoid muscle |
| lateral | lateral part of the arch of the cricoid | muscular process of the arytenoid cartilage | | recurrent laryngeal branch of the vagus | adduct and medially rotate the cartilage, pulling the vocal ligaments towards the midline and backwards and so closing off the rima glottidis | |

Neck

Cervical

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|---------------------|--|---|--|--|--|-------------------------|
| platysma | inferior clavicle and fascia of chest | mandible | branches of the submental artery and suprascapular artery | cervical branch of the facial nerve (CN VII) | Draws the corners of the mouth inferiorly and widens it (as in expressions of sadness and fright). Also draws the skin of the neck superiorly when teeth are clenched | Masseter, Temporalis |
| sternocleidomastoid | manubrium sterni, medial portion of the clavicle | mastoid process of the temporal bone, superior nuchal line | occipital artery and the superior thyroid artery | motor: accessory nerve sensory: cervical plexus | Acting alone, tilts head to its own side and rotates it so the face is turned towards the opposite side. Acting together, flexes the neck, raises the sternum and assists in forced inspiration. | |

Suprahyoid

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|------------|--|---|--|--|---|------------|
| digastric | anterior belly - digastric fossa (mandible); posterior belly - mastoid process of temporal bone | Intermediate tendon (hyoid bone) | | anterior belly - mandibular division of the trigeminal (CN V) via the mylohyoid nerve; posterior belly - facial nerve (CN VII) | Opens the jaw when the masseter and the temporalis are relaxed. | |
| stylohyoid | styloid process (temporal) | greater cornu of hyoid bone | | facial nerve (CN VII) | Elevate the hyoid during swallowing | |
| mylohyoid | Mylohyoid line (mandible) | Median raphé | mylohyoid branch of inferior alveolar artery | mylohyoid nerve, from inferior alveolar branch of mandibular nerve [V3] | Raises oral cavity floor, elevates hyoid, depresses mandible | |
| geniohyoid | Symphysis menti | hyoid bone | | C1 via hypoglossal nerve | carry hyoid bone and the tongue upward during deglutition | |

Infrahyoid/Strap

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-------------|--------------|-----------|--------|-------|--------------------|------------|
| sternohyoid | manubrium of | hyoid | | ansa | depress hyoid bone | |

| | sternum | bone | cervicalis | | |
|---------------|--------------------------------|----------------------|----------------------------|--|--|
| sternothyroid | manubrium | thyroid cartilage | Ansa cervicalis | Elevates larynx, may slightly depress hyoid bone | |
| thyrohyoid | thyroid cartilage | hyoid bone | first cervical nerve | depress hyoid bone | |
| omohyoid | Upper border of the scapula | Hyoid bone | Ansa cervicalis | Depresses the larynx and hyoid bone. Carries hyoid bone backward and to the side | |

Vertebrate

Anterior

Lateral

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|---------------------|--|--|---|--|--|------------|
| scalene muscles | cervical vertebrae | first and second ribs | ascending cervical artery (branch of inferior thyroid artery) | cervical nerves (C3, C4, C5, C6, C7 | elevation of ribs I&II | |
| anterior | C3-C6 | first rib | ascending cervical artery (branch of inferior thyroid artery) | ventral ramus of C5, C6 | When the neck is fixed, elevates the first rib to aid in breathing or when the rib is fixed, bends the neck forward and sideways and rotates it to the opposite side | |
| medius | C2-C6 | first rib | ascending cervical artery (branch of inferior thyroid artery) | ventral rami of the third to eighth cervical spinal nerves | Elevate 1st rib, rotate the neck to the opposite side | |
| posterior | transverse processes of C4 - C6 | 2nd rib | ascending cervical artery, superficial cervical artery | C6, C7, C8 | Elevate 2nd rib, tilt the neck to the same side | |
| levator scapulae | Posterior tubercles of transverse processes of C1 - C4 | Superior part of medial border of scapula | dorsal scapular artery | cervical nerve (C3, C4) and dorsal scapular nerve (C5) | Elevates scapula and tilts its glenoid cavity inferiorly by rotating scapula | |

| | | | | <u> </u> |
|---------------------------------|---|---|-----------------------|----------|
| rectus capitis lateralis | upper surface of the transverse process of the atlas (C1) | under surface of the jugular process of the occipital bone | C1 | |
| obliquus capitis superior | lateral mass of atlas | lateral half of the inferior nuchal line | suboccipital nerve | |
| inferior | spinous process of the axis | lateral mass of atlas | suboccipital nerve | |

Posterior

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|---|---|---|-----------------------------|---|---|------------|
| rectus capitis posterior minor | the tubercle on the posterior arch of the atlas (C1) | the medial part of the inferior nuchal line of the occipital bone and the surface between it and the foramen magnum | | a branch of the dorsal primary division of the suboccipital nerve | extends the head at the neck, but is now considered to be more of a sensory organ than a muscle | |
| rectus capitis posterior major | spinous process of the axis (C2) | inferior nucheal line of the occipital bone | | Dorsal ramus of C1 (suboccipital nerve) | | |
| semispinalis capitis | articular processes of C4-C6; transverse processes of C7 and T1-T7 | occipital bone between the superior and inferior nuchal lines | | greater occipital nerve | Extension of the head | |
| longissimus capitis | articular processes of C4-C7; transverse processes ot T1- T5 | posterior margin of the mastoid process | lateral sacral artery | posterior branch of spinal nerve | Laterally: Flex the head and neck to the same side. Bilaterally: Extend the vertebral column. | |
| splenius capitis | ligamentum nuchae, spinous processes of C7-T6 | Mastoid process | | C3, C4 | Extend, rotate, and laterally flex the head | |

Torso

Back

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| Muscle Origin | | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------------|--|---|--|--|--|-------------------------------|
| erector spinae | on the spines of the last four thoracic vertebrae | both the spines of the most cranial thoracic vertebrae and the cervical vertebrae | lateral sacral artery | posterior branch of spinal nerve | extends the vertebral column | rectus abdominis muscle |
| iliocostalis | | | lateral sacral artery | | | |
| longissimus | transverse process | transverse process | lateral sacral artery | posterior branch of spinal nerve | | rectus abdominis muscle |
| spinalis | spinous process | spinous process | lateral sacral artery | posterior branch of spinal nerve | | rectus abdominis muscle |
| latissimus dorsi | spinous processes of thoracic T6-T12, thoracolumbar fascia, iliac crest and inferior 3 or 4 ribs | floor of intertubercular groove of the humerus | subscapular artery, dorsal scapular artery | thoracodorsal nerve | pulls the forelimb dorsally and caudally | deltoid, trapezius |
| transversospinales | transverse process | spinous process | | posterior branches | | |
| semispinalis dorsi | transverse processes of the sixth to the tenth thoracic vertebrae | spinous processes of the upper four thoracic and lower two cervical vertebrae | | | | |
| semispinalis cervicis | transverse processes of the upper five or six thoracic vertebræ | cervical spinous processes, from the axis to the fifth | | | | |
| semispinalis capitis | transversal process of lower cervical and higher thoracal columna | area between superior and inferior nuchal line | | greater occipital nerve | Extends the head | |
| multifidus | sacrum, erector spinae aponeurosis, PSIS, and iliac crest | spinous process | | posterior branch of spinal nerve | Stabilizes vertebrae in local movements of vertebral column | |
| rotatores | transverse process | spinous process | | posterior branch | | |
| interspinales | spinous process | spinous process | | posterior rami of spinal nerves | Extension, flexion and rotation of vertebral column. | |
| intertransversarii | transverse process | transverse process above | | anterior rami of spinal | Lateral flexion of | |

| | | | | nerves | trunk | | |
|------------------|--|--|--|--------|--|--|--|
| Splenius muscles | Splenius muscles | | | | | | |
| capitis | ligamentum nuchae, spinous process of C7- T6 | Mastoid process of temporal and occipital bone | | C3, C4 | Extend, rotate, and laterally flex the head | | |
| cervicis | spinous processes of T3-T6 | transverse processes of C1, C2, C3 | | C5, C6 | | | |

Chest

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-------------------------|--|--|--|--|---|------------|
| intercostales | ribs 1-11 | ribs 2-12 | intercostal arteries | intercostal nerves | | |
| external | | | intercostal arteries | intercostal nerves | Inhalation | internal |
| internal | rib - inferior border | rib - superior border | intercostal arteries | intercostal nerves | hold ribs steady | external |
| innermost | | | intercostal arteries | intercostal nerves | | |
| subcostales | inner surface of one rib | inner surface of the second or third rib above, near its angle | | intercostal nerves | | |
| transversus thoracis | costal cartilages of last 3-4 ribs, body of sternum, xiphoid process | ribs/costal cartilages 2-6 | intercostal arteries | intercostal nerves | depresses ribs | |
| levatores costarum | transverse processes of C7 to T12 vertebrae | superior surfaces of the ribs immediately inferior to the preceding vertebrae | | dorsal rami - C8, T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11 | Assists in elevation of the thoracic rib cage | |
| Serratus post | erior muscles | | | | | |
| inferior | vertebrae T11 - L3 | the inferior borders of the 9th through 12th ribs | intercostal arteries | intercostal nerves | depress the lower ribs, aiding in expiration | |
| superior | nuchal ligament (or ligamentum nuchae) and the spinous processes of the vertebrae C7 through T3 | the upper borders of the 2nd through 5th ribs | intercostal arteries | 2nd through 5th intercostal nerves | elevate the ribs which aids in inspiration | |
| diaphragm | | | pericardiacophrenic artery, musculophrenic | phrenic and lower intercostal | respiration | |

| artery, inferior phrenic arteries nerves | |
|---|--|
|---|--|

Abdomen

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------------|--|---|---|---|--|-------------------|
| transversus abdominis | ribs and the iliac crest | inserts into the pubic tubercle via the conjoint tendon, also known as the falx inguinalis | | intercostal nerves T7, T8, T9, T10, T11, subcostal nerve (T12), iliohypogastric nerve, ilioinguinal nerve, genitofemoral nerve | compress the ribs and viscera, providing thoracic and pelvic stability | |
| rectus abdominis | pubis | costal cartilages of ribs 5-7, xiphoid process of sternum | inferior epigastric artery | segmentally by thoraco- abdominal nerves (T7, T8, T9, T10, T11, T12) | flexion of trunk/lumbar vertebrae | erector spinae |
| pyramidalis | pubic symphysis and pubic crest | linea alba | | subcostal nerve (T12) | tensing the linea alba | |
| cremaster | inguinal ligament | | cremasteric artery | genital branch of genitofemoral nerve | raise and lower the scrotum | |
| quadratus lumborum | iliac crest and iliolumbar ligament | last rib and transverse processes of lumbar vertebrae | lumbar arteries, iliolumbar artery | anterior branches of T12, L1, L2, L3, L4 | Alone, lateral flexion of vertebral column; Together, depression of thoracic rib cage | |
| Oblique mu | scles | | | | | |
| external | Lower 8 costae | Crista iliaca, ligamentum inguinale | | intercostal nerves T5, T6, T7, T8, T9, T10, T11, subcostal nerve (T12) | Rotates torso | |
| internal | inguinal ligament, iliac crest and the lumbodorsal fascia | linea alba, xyphoid process and the inferior ribs. | | intercostal nerves T8, T9, T10, T11, subcostal nerve (T12), iliohypogastric nerve, ilioinguinal nerve | Compresses abdomen and rotates vertebral column. | |

Pelvis

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-------------|-----------------------|---------------------------------------|--------|---|--------|------------|
| coccygeus | sacrospinous ligament | gament sacral nerves: S4, S5 or S3-S4 | | closing in the back part of the outlet of the pelvis | | |
| Levator ani | | | | | | |
| | | | | • levator ani nerve (S4) | | |

| iliococcygeus | ischial spine and from the posterior part of the tendinous arch of the pelvic fascia | coccyx and anococcygeal raphe | inferior rectal nerve from pudendal nerve (S3, S4) coccygeal plexus | supports the viscera in pelvic cavity | |
|---------------|---|-------------------------------------|--|---|--|
| pubococcygeus | back of the pubis and from the anterior part of the obturator fascia | coccyx and sacrum | controls urine flow and contracts during orgasm | | |
| puborectalis | lower part of the pubic symphysis | | S3, S4. levator ani nerve | inhibit defecation | |

Perineum

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|---------------------------------------|---|--|--------------------|--|---|------------|
| Scphincter ani | | | | | | |
| externus | | | | S4 and twigs from inferior anal nerves of pudendal nerve | keep the anal canal and anus closed, aids in the expulsion of the feces | |
| internus | | | | pudendal nerve | keep the anal canal and anus closed, aids in the expulsion of the feces | |
| Superficial perineal | pouch | | | | | |
| transversus perinei superficialis | anterior part of ischial tuberosity | central point of perineum | | pudendal nerve | | |
| bulbospongiosus | median raphé | | perineal artery | pudendal nerve | in males, empties the urethra; in females, clenches the vagina | |
| ischiocavernosus | | | perineal artery | pudendal nerve | assists the bulbospongiosus muscle | |
| Deep perineal pouch | | | | | | |
| transversus perinei profundus | inferior rami of the ischium | its fellow of the opposite side | pudendal nerve | | | |
| sphincter urethrae membranaceae | junction of the inferior rami of the pubis and ischium to the extent of 1.25–2 cm., and | its fellow of the opposite | | perineal branch of the pudendal nerve (S2, | Constricts urethra, maintain urinary continence | |

Vertebral column

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|---------------------|--|---|--|---|--|--------------------------------|
| trapezius | down the midline, from the external occipital protuberance, the nuchal ligament, the medial part of the superior nuchal line, and the spinous processes of the vertebrae C7-T12 | at the shoulders, into the lateral third of the clavicle, the acromion process and into the spine of the scapula | transverse cervical artery | major nerve supply is the cranial nerve XI. cervical nerves C3 and C4 receive information about pain in this muscle | retraction and elevation of scapula. | Serratus anterior muscle |
| latissimus dorsi | spinous processes of thoracic T6-T12, thoracolumbar fascia, iliac crest and inferior 3 or 4 ribs | floor of intertubercular groove of the humerus | subscapular artery, dorsal scapular artery | thoracodorsal nerve | pulls the forelimb dorsally and caudally | deltoid, trapezius |
| rhomboids | nuchal ligaments, spinous processes of C7-T5 vertebrae | medial border of the scapula | dorsal scapular artery | dorsal scapular nerve (C4 and C5) | Retracts the scapula and rotates it to depress the glenoid cavity. fixes the scapula to the thoracic wall. | Serratus anterior muscle |
| rhomboid major | spinous processes of the T2 to T5 vertebrae | medial border of the scapula, inferior to the insertion of rhomboid minor muscle | dorsal scapular artery | dorsal scapular nerve (C4 and C5) | Retracts the scapula and rotates it to depress the glenoid cavity. It also fixes the scapula to the thoracic wall. | Serratus anterior muscle |
| rhomboid minor | nuchal ligaments and spinous processes of C7- to T1 vertebrae | medial border of the scapula, superior to the insertion of rhomboid major muscle | dorsal scapular artery | dorsal scapular nerve (C4 and C5) | Retracts the scapula and rotates it to depress the glenoid cavity. It also fixes the scapula to the thoracic wall. | Serratus anterior muscle |
| | posterior tubercles of | superior part of | dorsal | cervical nerve | Elevates scapula and tilts its glenoid | |

| levator scapulae C1 - | nsverse processes of - C4 vertebrae | medial border of scapula | scapular artery | (C3, C4) and dorsal scapular nerve (C5) | cavity inferiorly by rotating scapula | |
|--------------------------|--|-----------------------------|--------------------|---|--|--|
|--------------------------|--|-----------------------------|--------------------|---|--|--|

Thoracic walls

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|----------------------|--|---|--|---|--|---|
| pectoralis major | anterior surface of the medial half of the clavicle. Sternocostal head : anterior surface of the sternum, the superior six costal cartilages | intertubercular groove of the humerus | pectoral branch of the thoracoacromial trunk | lateral pectoral nerve and medial pectoral nerve Clavicular head: C5 and C6 Sternocostal head: C7, C8 and T1 | Clavicular head: flexes the humerus Sternocostal head: extends the humerus As a whole, adducts and medially rotates the humerus. It also draws the scapula anteriorly and inferiorly. | |
| pectoralis minor | 3rd to 5th ribs, near their costal cartilages | medial border and superior surface of the coracoid process of the scapula | Pectoral branch of the thoracoacromial trunk | Medial pectoral nerves (C8, T1) | stabilizes the scapula by drawing it inferiorly and anteriorly against the thoracic wall | |
| subclavius | first rib | subclavian groove of clavicle | thoracoacromial artery, clavicular branch | nerve to subclavius | Depresses the clavicle | |
| serratus anterior | fleshy slips from the outer surface of upper 8 or 9 ribs | costal aspect of medial margin of the scapula | lateral thoracic artery (upper part), thoracodorsal artery (lower part) | long thoracic nerve (from roots of brachial plexus C5, C6, C7) | protract and stabilize scapula, assists in upward rotation | Rhomboid major, Rhomboid minor, Trapezius |

Shoulder

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------|---|---|---|---|--|------------------|
| deltoid | clavicle, acromion, spine of the scapula | deltoid tuberosity of humerus | primarily posterior circumflex humeral artery | Axillary nerve | shoulder abduction, flexion and extension | Latissimus dorsi |
| teres major | posterior aspect of the inferior angle of the scapula | medial lip of the intertubercular sulcus of the humerus | Subscapular and circumflex scapular arteries | Lower subscapular nerve (segmental levels C5 and C6) | Internal rotation of the humerus | |
| Rotator cuff | | | | | | |
| | | | | | | infraspinatus, |

| supraspinatus | supraspinous fossa of scapula | superior facet of greater tubercle of humerus | suprascapular artery | suprascapular nerve | abduction of arm and stabilizes humerus | teres minor, pectoralis major, and latissimus dorsi |
|---------------|---|--|--|---|---|--|
| infraspinatus | infraspinous fossa of the scapula | middle facet of greater tubercle of the humerus | suprascapular and circumflex scapular arteries | suprascapular nerve | Lateral rotation of arm & Adduction of arm and stabilizes humerus | subscapularis, pectoralis major, and latissimus dorsi |
| teres minor | lateral border of the scapula | inferior facet of greater tubercle of the humerus | posterior circumflex humeral artery and the circumflex scapular artery | axillary nerve | laterally rotates and adducts the arm | subscapularis, pectoralis major, and latissimus dorsi |
| subscapularis | subscapular fossa | lesser tubercle of humerus | subscapular artery | upper subscapular nerve, lower subscapular nerve (C5, C6) | rotates medially humerus; stabilizes shoulder | infraspinatus and teres minor |

Arm

Anterior compartment

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|------------------|--|--|-------------------------------|---|---|------------------------------|
| coracobrachialis | coracoid process of scapula | medial humerus | brachial artery | musculocutaneous nerve | flexes at shoulder joint | |
| biceps brachii | <pre>short head: coracoid process of the scapula. long head: supraglenoid tubercle</pre> | radial tuberosity | brachial artery | Musculocutaneous nerve (Lateral cord: C5, C6, C7) | flexes elbow and supinates forearm | Triceps brachii muscle |
| brachialis | anterior surface of the humerus, particularly the distal half of this bone | coronoid process and the tuberosity of the ulna | radial recurrent artery | musculocutaneous nerve | flexion at elbow joint | |

Posterior compartment

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------|---|------------------------------|---------------------|-----------------|---|-----------------------------|
| triceps brachii | long head:Infraglenoid tubercle of the scapula lateral head: posterior humerus - above radial grove | olecranon process of ulna | Profunda brachii | radial nerve | extends forearm, caput longum adducts shoulder | Biceps brachii muscle |

| | medial head: posterior humerus-under radial groove | | | | | |
|----------|--|--|---|--|---|--|
| anconeus | Lateral epicondyle of the humerus | lateral surface of the olecranon process and the superior part of the posterior ulna | Profunda brachii, recurrent interosseous artery | radial nerve (C7, C8, and T1) | partly blended in with the triceps, which it assists in extension of the forearm. Stabilises the elbow and abducts the ulna during pronation. | |

Forearm

Anterior compartment

Superficial

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------------------------|--|--|--|---|--|---|
| pronator teres | humeral head: medial epicondyle of humerus (common flexor tendon) ulnar head: coronoid process of the ulna | radius pronator tuberosity | ulnar artery and radial artery | median nerve | pronation of forearm, flexes elbow | Supinator muscle |
| flexor carpi radialis | medial epicondyle of humerus (common flexor tendon) | Bases of second and third metacarpal bones | ulnar artery | Median nerve | Flexion and abduction at wrist | Extensor carpi radialis brevis muscle, Extensor carpi radialis longus muscle |
| palmaris longus | medial epicondyle of humerus (common flexor tendon) | palmar aponeurosis | ulnar artery | median nerve | wrist flexor | Extensor carpi radialis brevis, Extensor carpi radialis longus, Extensor carpi ulnaris |
| flexor carpi ulnaris | medial epicondyle of the humerus (common flexor tendon) | pisiform | ulnar artery | muscular branches of ulnar nerve | flexion and adduction of wrist | Extensor carpi ulnaris muscle |
| flexor digitorum superficialis | medial epicondyle of the humerus (common flexor tendon), as well as parts of the radius and ulna. | phalanges II-IV | ulnar artery | median nerve | flexor of fingers (primarily at proximal interphalangeal joints) | Extensor digitorum muscle |

Deep

| uscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-----------------------|--------------------------------------|--|------------------------------------|---|----------------------|---------------------|
| pronator quadratus | medial, anterior surface of the ulna | lateral, anterior surface of the radius | anterior interosseous artery | median nerve (anterior interosseous nerve) | pronates the forearm | Supinator muscle |

| flexor digitorum profundus | ulna | distal phalanges | anterior interosseous artery | median (anterior interosseous), muscular branches of ulnar | flex hand, interphalangeal joints | Extensor digitorum muscle |
|----------------------------------|--|---|------------------------------------|---|---|---|
| flexor pollicis longus | The middle 2/4 of the volar surface of the radius and the adjacent interosseus membrane. (Also occasionally a small origin slightly on the medial epicondyle of the ulna.) | The base of the distal phalanx of the thumb | Anterior interosseous artery | Anterior interosseous nerve (branch of median nerve) (C8 , T1) | Flexion of the thumb | Extensor pollicis longus muscle, Extensor pollicis brevis muscle |

Posterior compartment

Superficial

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-----------------------------------|--|---|---|--|--|---|
| extensor digitorum | lateral epicondyle (common extensor tendon) | 2nd-4th phalange | | posterior interosseous nerve (C7, C8) | extension of hand and fingers | Flexor digitorum superficialis muscle, Flexor digitorum profundus muscle |
| extensor digiti minimi | the anterior portion of the lateral epicondyle of the humerus (common extensor tendon) | extensor expansion, located at the base of the proximal phalanx of the finger on the dorsal side | posterior interosseous artery which originates from the common interosseous artery and more proximally, the ulnar artery | posterior interosseous nerve (C7, C8) | extends the little finger at all joints | Flexor digiti minimi brevis |
| extensor carpi ulnaris | Common extensor tendon (lateral epicondyle), ulna | 5th metacarpal | ulnar artery | posterior interosseous nerve (C7, C8) | extends and adducts the wrist | Flexor carpi ulnaris |
| Mobile wad | | | | | | |
| brachioradialis | Lateral supracondylar ridge of the humerus | Distal radius (Radial styloid process) | radial recurrent artery | radial nerve | Flexion of forearm | |
| extensor carpi radialis longus | lateral supracondylar ridge | 2nd metacarpal | radial artery | radial nerve | extensor at the wrist joint, abducts | Flexor carpi radialis muscle |

| | | | | | the hand at the wrist | |
|-----------------------------------|---|-------------------------------|---------------|-----------------------------------|--|------------------------------------|
| extensor carpi radialis brevis | humerus at the anterior of lateral epicondyle (common extensor tendon) | base of the 3rd metacarpal | radial artery | posterior interosseus nerve | extensor and abductor of the hand at the wrist joint | Flexor carpi radialis muscle |

Deep

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-----------------------------|---|--|-------------------------------------|--|---|---|
| supinator | Lateral epicondyle of the humerus, supinator crest of ulna, radial collateral ligament, annular ligament | Lateral proximal radial shaft | radial recurrent artery | posterior interosseus nerve (C7, C8) | supinates forearm | Pronator teres, Pronator quadratus |
| extensor indicis | ulna | index finger (extensor hood) | | posterior interosseous nerve (C7, C8) | extends index finger, wrist | |
| Anatomical snu | iff box | | | | | |
| abductor pollicis longus | ulna, radial styloid process | first metacarpal | | posterior interosseous nerve (C7, C8) | abduction, extension of thumb | Adductor pollicis muscle |
| extensor pollicis brevis | radius | thumb, proximal phalanx | posterior interosseous artery | posterior interosseous nerve (C7, C8) | extension of thumb at metacarpophalangeal joint | Flexor pollicis longus muscle, Flexor pollicis brevis muscle |
| extensor pollicis longus | ulna | thumb, distal phalanx | | posterior interosseous nerve (C7, C8) | extension of the thumb (metacarpophalangeal and interphalangeal) | Flexor pollicis longus muscle, Flexor pollicis brevis muscle |

Hand

Lateral volar

Thenar

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------------------|---|--|--------|--|---|---|
| opponens pollicis | trapezium and transverse carpal ligament | metacarpal bone of the thumb on its radial side | | median nerve | Opposition of the thumb | |
| flexor pollicis brevis | trapezoid, flexor retinaculum | thumb, proximal phalanx | | median nerve, deep branch of ulnar nerve (medial head) | Flexes the thumb | Extensor pollicis longus muscle, Extensor pollicis brevis muscle |
| abductor pollicis brevis | Transverse carpal ligament, the scaphoid and trapezium | Radial base of proximal phalanx of thumb and the thumb extensors | | Median nerve | Abducts the thumb | Adductor pollicis muscle |
| adductor pollicis | Transverse head: anterior body of the third metacarpal Oblique head: bases of the second and the third metacarpals and the adjacent trapezoid and capitate bones | medial side of the base of the proximal phalanx of the thumb and the ulnar sesamoid | | deep branch of ulnar nerve (T1) | adducts the thumb at the carpometacarpal joint | Abductor pollicis longus muscle, Abductor pollicis brevis muscle |

Medial volar

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist | |
|--------------------------------------|---|--|-----------------|--|--|--|--|
| palmaris brevis | flexor retinaculum (medial), palmar aponeurosis | palm | | superficial branch of ulnar nerve | wrinkle skin of palm | | |
| Hypothenar | | | | | | | |
| abductor digiti minimi | pisiform | base of the proximal phalanx of the 5th digit on the ulnar or medial side | ulnar artery | deep branch of ulnar nerve | Abduction of little finger | | |
| flexor digiti minimi brevis | hamate bone | little finger | ulnar artery | deep branch of ulnar nerve | flexes little finger | extensor digiti minimi muscle | |
| opponens digiti minimi | Hook of hamate and flexor retinaculum | Medial border of 5th metacarpal | ulnar artery | deep branch of ulnar nerve (C8 and T1) | Draws 5th metacarpal anteriorly and rotates it, bringing little finger (5th digit) into opposition with thumb | | |

Intermediate

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------|--------|-----------|--------|-------|--------|------------|
|--------|--------|-----------|--------|-------|--------|------------|

| lumbrical | flexor digitorum profundus | extensor expansion | superficial palmar arch, common palmar digital arteries, deep palmar arch, dorsal digital artery | deep branch of ulnar nerve, median nerve | flex metacarpophalangeal joints, extend interphalangeal joints | |
|----------------------|----------------------------------|-----------------------|---|---|---|---------------------------------|
| dorsal interossei | metacarpals | proximal phalanges | Dorsal metacarpal artery and palmar metacarpal artery | deep branch of ulnar nerve | abduct finger | Palmar interossei muscles |
| palmar interossei | metacarpals | proximal phalange | | deep branch of ulnar nerve | adduction | |

Lower limb

Iliac region

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|----------------|---|---|--|--|--|---|
| iliopsoas | iliac fossa (iliacus), sacrum (iliacus), spine (T12, L1, L2, L3, L4, L5) & intervertebral discs (psoas major, psoas minor) | femur—lesser trochanter (psoas major/minor), shaft below lesser trochanter (iliacus), tendon of psoas major & femur (iliacus) | medial femoral circumflex artery, iliolumbar artery | femoral nerve, Lumbar nerves L1, L2 | flexion of hip (psoas major/minor, iliacus), spine rotation (psoas major/minor) | Gluteus maximus, posterior compartment of thigh |
| psoas major | transverse processes, bodies and discs of T12- L5 | in the lesser trochanter of the femur | Iliolumbar artery | Lumbar plexus via anterior branches of L1, L2, L3 | flexes and rotates laterally thigh | Gluteus maximus |
| psoas minor | Side of T12+L1 and IV Disc between | Pectineal line and iliopectineal eminence | | L1 | Weak trunk flexor | Gluteus maximus |
| iliacus | iliac fossa | lesser trochanter of femur | medial femoral circumflex artery, Iliolumbar artery | femoral nerve (L2, L3) | flexes hip | Gluteus maximus |

Gluteal

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist | | |
|------------------------|-----------------|------------------|--|---------------------------------------|--|------------|--|--|
| tensor fascia latae | iliac crest | iliotibial tract | primarily lateral circumflex femoral artery, Superior gluteal artery | Superior gluteal nerve (L4, L5) | Thigh - flexion, medial rotation. Trunk stabilization. | | | |
| Gluteal muscles | | | | | | | | |
| | Gluteal surface | | | | external rotation and | | | |

| gluteus maximus muscle | of ilium, lumbar fascia, sacrum, sacrotuberous ligament | Gluteal tuberosity of the femur, iliotibial tract | superior and inferior gluteal arteries | inferior gluteal nerve (L5, S1, S2 nerve roots) | extension of the hip joint, supports the extended knee through the iliotibial tract, chief antigravity muscle in sitting | Iliacus, Psoas major, Psoas minor |
|------------------------------|---|--|---|--|--|--|
| gluteus medius muscle | Gluteal surface of ilium, under gluteus maximus | Greater trochanter of the femur | superior gluteal artery | superior gluteal nerve (L4, L5, S1 nerve roots) | abduction of the hip; preventing adduction of the hip. Medial rotation of thigh. | lateral rotator group |
| minimus | Gluteal surface of ilium, under gluteus medius. | Greater trochanter of the femur | superior gluteal artery | superior gluteal nerve (L4, L5, S1 nerve roots) | Works in concert with gluteus medius: abduction of the hip; preventing adduction of the hip. Medial rotation of thigh. | lateral rotator group |
| lateral rotator group | at or below the acetabulum of the ilium | on or near the greater trochanter of the femur | Inferior gluteal artery, Lateral sacral artery, Superior gluteal artery | Obturator nerve, nerve to the Piriformis, nerve to quadratus femoris | lateral rotation of hip | Gluteus minimus muscle, Gluteus medius muscle |
| piriformis | sacrum | greater trochanter | Inferior gluteal artery, Lateral sacral artery, Superior gluteal artery | nerve to the Piriformis (S1 and S2 nerve roots) | laterally rotate (outward) the thigh | |
| obturator externus | obturator foramen and obturatory membrane | medial aspect of greater trochanter of femur | obturator artery | posterior branch of obturator nerve (L3, L4) | adduct thigh, rotate laterally thigh | |
| obturator internus | Ischiopubic ramus & obturator membrane | medial aspect of the Greater trochanter | | Nerve to obturator internus (L5, S1, S2) | Abducts & rotates laterally thigh, and stabiliser of the hip during walking | |
| inferior gemellus | Ischial tuberosity | Obturator internus tendon | | Nerve to Quadratus femoris (L4, L5, S1) | Rotates laterally thigh | |
| superior gemellus | spine of the ischium | Obturator internus tendon | | Sacral plexus (S1, S2, S3) | Rotates laterally thigh | |
| quadratus femoris | ischial tuberosity | intertrochanteric crest | inferior gluteal artery | nerve to quadratus femoris (L4, L5, -S1) | lateral rotation of thigh | |

anterior compartment

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-----------------------|---|--|-------------------|------------------|--|------------|
| articularis genu | femur | suprapatellar bursa | femoral artery | femoral nerve | Pulling the suprapatellar bursa during extension of the knee. | |
| sartorius | superior to the anterior superior iliac spine | medial side of the upper tibia in the pes anserinus | femoral artery | femoral nerve | flexion, lateral rotation and abduction of thigh; flexion and medial rotation of leg | |
| quadriceps femoris | combined rectus femoris and vastus muscles | Patella and Tibial tuberosity via the Patellar ligament | femoral artery | Femoral nerve | Knee extension; Hip flexion (R.Fem. only) | Hamstring |
| rectus femoris | anterior inferior iliac spine and the exterior surface of the bony ridge which forms the iliac portion of the acetabulum | Patella and Tibial tuberosity via the Patellar ligament | femoral artery | femoral nerve | knee extension; hip flexion | Hamstring |
| vastus lateralis | Greater trochanter, Intertrochanteric line, and Linea aspera of the femur | patella and tibial tuberosity via the patellar ligament | femoral artery | femoral nerve | Extends and stabilizes knee | hamstring |
| vastus intermedius | antero/ lateral femur | patella and tibial tuberosity via the patellar ligament | femoral artery | femoral nerve | extends knee | Hamstring |
| vastus medialis | femur | patella and tibial tuberosity via the patellar ligament | femoral artery | femoral nerve | extends knee | hamstring |

posterior compartment/hamstring

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|----------------|--|---|---|---|---|----------------------|
| biceps femoris | long head: tuberosity of the ischium, short head: linea aspera, femur | the head of the fibula which articulates with the back of the lateral tibial condyle | inferior gluteal artery, perforating arteries, popliteal artery | long head: medial (tibial) part of sciatic nerve, short head: lateral (common fibular) part of sciatic nerve | flexes knee joint, laterally rotates leg at knee (when knee is flexed), extends hip joint (long head only) | Quadriceps muscle |
| semitendinosus | tuberosity of the ischium | pes anserinus | inferior gluteal artery, perforating arteries | sciatic (tibial, L5, S1, S2) | flexes knee, extends hip joint, medially rotates leg at knee | Quadriceps muscle |
| | tuberosity of | Medial surface | profunda femoris, | | flexes knee, extends hip joint, | Quadriceps |

| semimembranosus | the ischium | of tibia | gluteal | sciatic nerve | medially rotates leg | muscle |
|-----------------|-------------|----------|---------|---------------|----------------------|--------|
| | | | artery | | at knee | |

medial compartment

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-----------------------------------|--|--|---------------------|--|--|------------|
| adductor muscles of the hip | pubis | femur, tibia | | obturator nerve | adduction of hip | |
| gracilis | inferior pubic ramus | tibia (pes anserinus) | obturator artery | anterior branch of obturator nerve | adduction of hip, flexion of hip, medial rotation of knee | |
| pectineus | superior pubic ramus | lesser trochanter, linea aspera | Obturator artery | femoral nerve, sometimes obturator nerve | flexion & adduction of hip | |
| adductor brevis | anterior surface of the inferior pubic ramus | the lesser trochanter and linea aspera of the femur | obturator artery | anterior branch of obturator nerve | adduction of hip | |
| adductor longus | pubic body just below the pubic crest | middle third of linea aspera | obturator artery | anterior branch of obturator nerve | adduction & medial rotation of hip | |
| adductor magnus | tuberosity of the ischium | femur and adductor tubercle of femur | obturator artery | posterior branch of obturator nerve (adductor) and tibial part of sciatic nerve | adduction of hip | |

Leg

anterior compartment

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|---------------------------------|--|--|------------------------------|--|--|---|
| tibialis anterior | body of tibia | medial cuneiform and first metatarsal bones of the foot | anterior tibial artery | Deep Fibular (peroneal) nerve | dorsiflex and invert the foot | Fibularis longus, Gastrocnemius, Soleus, Plantaris, Tibialis posterior |
| extensor hallucis longus | middle portion of the fibula on the anterior surface and the interosseous membrane | dorsal side of the base of the distal phalanx of the Hallux | anterior tibial artery | Deep Fibular (peroneal) nerve | Extends the big toe and assists in dorsiflexion of the foot at the ankle. Also is a weak invertor | Flexor hallucis longus, Flexor hallucis brevis |
| extensor digitorum longus | Lateral Condyle of tibia and superior ³ / ₄ of interosseous membrane | Middle and Distal phalanges of lateral four digits | anterior tibial artery | Deep Fibular (peroneal) nerve | extension of toes and ankle | Flexor digitorum longus, Flexor digitorum brevis |
| fibularis | distal anterior surface | dorsal surface | anterior | Deep Fibular | dorsi flexes and everts | |

| tertius | of the fibula | of metatarsal 5 | tibial artery | (peroneal) nerve | foot | |
|---------|---------------|-----------------|------------------|---------------------|------|--|
|---------|---------------|-----------------|------------------|---------------------|------|--|

posterior compartment

Superficial

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|---------------|---|--|-------------------------------|--|---|--------------------------------|
| triceps surae | | achilles tendon, calcaneus | posterior tibial artery | tibial nerve | plantarflexion | |
| gastrocnemius | femur(medial and lateral condyles) | calcaneus | sural arteries | tibial nerve from the sciatic, specifically, nerve roots S1, S2 | plantarflexion, flexion of knee (minor) | Tibialis anterior muscle |
| soleus | fibula, medial border of tibia (soleal line) | tendo calcaneus | sural arteries | tibial nerve, specifically, nerve roots L ₅ – S ₂ | plantarflexion | tibialis anterior muscle |
| plantaris | lateral supracondylar ridge of femur above lateral head of gastrocnemius | tendo calcaneus (medial side, deep to gastrocnemius tendon) | sural arteries | tibial nerve | Plantar flexes foot and flexes knee | Tibialis anterior muscle |

Deep

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist | | |
|-------------------------------|---|--|--|--|--|---|--|--|
| popliteus | middle facet of the lateral surface of the lateral femoral condyle | posterior tibia under the tibial condyles | popliteal artery | tibial nerve | Medial rotation and flexion of knee | | | |
| tarsal tunn | tarsal tunnel | | | | | | | |
| flexor hallucis longus | fibula, posterior aspect of upper 1/3 | base of distal phalanx of hallux | Peroneal artery (peroneal branch of the posterior tibial artery | tibial nerve, S1, S2 nerve roots | flexes all joints of the Hallux, plantar flexion of the ankle joint | Extensor hallucis longus muscle | | |
| flexor digitorum longus | medial tibia | distal phalanges of lateral four digits | posterior tibial artery | Tibial nerve | Primary action is Flex digits | Extensor digitorum longus, Extensor digitorum brevis | | |
| tibialis posterior | tibia, fibula | navicular, medial cuneiform | posterior tibial artery | tibial nerve | inversion of the foot, plantar flexion of the foot at the ankle | Tibialis anterior muscle | | |

lateral compartment

fibularis muscles:

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------|--------|------------------------------------|---------------------------------|---|-----------------------------|--------------------------|
| longus | fibula | first metatarsal, medial cuneiform | fibular (peroneal) artery | superficial fibular (peroneal) nerve | plantarflexion, eversion | Tibialis anterior muscle |
| brevis | fibula | fifth metatarsal | fibular (peroneal) artery | superficial fibular (peroneal) nerve | plantarflexion, eversion | |

Foot

Dorsal

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|------------------------------|-----------|---------------------------------------|--------|---------------------------|----------------------------|---|
| extensor digitorum brevis | calcaneus | toes | | deep peroneal nerve | extends digits 2, 3, and 4 | Flexor digitorum longus, Flexor digitorum brevis |
| extensor hallucis brevis | calcaneus | base of proximal phalanx of hallux | | deep peroneal nerve | Extension of hallux | Flexor hallucis brevis muscle |

Plantar

1st layer

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|-------------------------------|--|--|------------------------------|---|-------------------------------------|--|
| abductor hallucis | medial process of calcaneus, flexor retinaculum, plantar aponeurosis | medial side of base of proximal phalanx of first digit | | medial plantar nerve | abducts hallux | Adductor hallucis muscle |
| flexor digitorum brevis | medial process of calcaneus, plantar aponeurosis, intermuscular septa | middle phalanges of digits 2-5 | | medial plantar nerve | flexes lateral four toes | Extensor digitorum longus, Extensor digitorum brevis |
| abductor digiti minimi | Plantar aponeurosis | Fifth toe or Phalanges | lateral plantar artery | lateral plantar nerve (S1, S2) | flex and abduct the fifth toe | Flexor digiti minimi brevis muscle |

2nd layer

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|----------------------|-----------|---------------------------------------|--------|-----------------------------------|--|------------|
| quadratus plantae | Calcaneus | Tendons of Flexor Digitorum Longus | | lateral plantar nerve (S1, S2) | Assists Flexor Digitorum Longus in flexion of DIP | |

| | | | | | joints | |
|---------------------|-----------------------------------|---|---|---|--|--|
| lumbrical muscle | tendons of flexor digitorum | medial aspect of extensor expansion of proximal phalanges of lateral | lateral plantar artery and plantar arch, and four plantar metatarsal | lateral plantar nerve (lateral three lumbricals) and medial plantar nerve (first | maintain extension of digits at interphalangeal | |
| | longus | four digits | arteries | lumbrical) | joints | |

3rd layer

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------------------|-----------------------------|-----------------------------|--------|---|---------------------------------|------------------------------------|
| flexor hallucis brevis | | | | medial plantar nerve | flex hallux | Extensor hallucis longus muscle |
| adductor hallucis | | | | Plantar nerve | adducts hallux | Abductor hallucis muscle |
| flexor digiti minimi brevis | fifth metatarsal bone | phalanx of the fifth toe | | lateral plantar nerve (superficial branch) | extend and adduct the fifth toe | Abductor digiti minimi muscle |

4th layer

| Muscle | Origin | Insertion | Artery | Nerve | Action | Antagonist |
|--------------------|-------------|--------------------|--------|---------------|-------------|-------------------------------|
| dorsal interossei | | | | plantar nerve | abduct toes | Plantar interossei muscles |
| plantar interossei | metatarsals | proximal phalanges | | plantar nerve | adduct toes | Dorsal interossei of the foot |

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Original source : <u>en.wikipedia.org/wiki/List_of_muscles_of_the_human_body</u>