

SHOULDER	Origin	Insertion	Action	Innervation
Upper trapezius	Occipital bone, nuchal ligament	Outer third of clavicle, acromion process	Scapular elevation and upward rotation	Spinal accessory (cranial nerve XI)
Middle trapezius	Spinous processes of C7 through T3	Scapular spine	Scapular retraction	Spinal accessory (cranial nerve XI)
Lower trapezius	Spinous processes of middle and lower thoracic vertebrae	Base of the scapular spine	Scapular depression and upward rotation	Spinal accessory (cranial nerve XI)
Levator scapulae	Transverse process of first four cervical vertebrae	Vertebral border of scapula between the superior angle and spine	Scapular elevation and downward rotation	Third and fourth cervical nerves
Pectoralis minor	Anterior surface, third through fifth ribs	Coracoid process of the scapula	Scapular depression, protraction, and downward rotation	Medial pectoral nerve
Serratus anterior	Lateral surface of the upper eight ribs	Vertebral border of the scapula, anterior surface	Scapular protraction and upward rotation	Long thoracic nerve
Rhomboid major Rhomboid minor	Spinous processes of T2 through T5 Spinous processes of C7-T1	Vertebral border of scapula between the spine and inferior angle Vertebral border next to spine	Scapular retraction and downward rotation Same as R. major	Dorsal scapular nerve Same as R. major

GH JOINT	Origin	Insertion	Action	Innervation
Anterior deltoid	Lateral third of the clavicle	Deltoid tuberosity	Shoulder flexion, medial rotation, horizontal adduction	Axillary nerve
Middle deltoid	Acromion process	Deltoid tuberosity	Shoulder abduction	Axillary nerve
Posterior deltoid	Spine of scapula	Deltoid tuberosity	Shoulder extension, hyperextension, lateral rotation, horizontal abduction	Axillary nerve
Pectoralis major, clavicular and sternal portions	Medial third of clavicle, sternum, costal cartilage of first six ribs	Lateral lip of bicipital groove of humerus	Shoulder adduction, medial rotation, horizontal adduction	Lateral and medial pectoral nerve
subclavius	Junction of 1 st rib and its costal cartilage	Inferior surface of middle 3 rd of clavicle	Anchors and depresses clavicle	C5 and C6
Latissimus dorsi	Spinous processes of T7 through L5 (via dorsolumbar fascia), posterior surface of sacrum, iliac crest, and lower three ribs	Medial lip of bicipital groove of humerus	Shoulder extension, adduction, medial rotation, hyperextension	Thoracodorsal nerve

TRUNK	Origin	Insertion	Action	Innervation
Scalenes	Transverse processes of the cervical vertebrae	First and second rib	Bilateral: Assists in neck flexion, Unilateral: Neck lateral bending	Lower cervical nerve
Rectus abdominis	Superior surface of Pubis on either side of symphysis	Inferior surface of costal cartilages of fifth, sixth, and seventh ribs	Trunk flexion, flexes of vertebral column; compression of abdomen	Seventh through twelfth intercostals nerves
External oblique	Lower eight ribs laterally	Iliac crest and linea alba	Bilateral: Trunk flexion; compression of abdomen, Unilateral: Lateral bending; rotation to opposite side	Eighth through twelfth intercostals, iliohypogastric, and ilioinguinal nerves
Internal oblique	Inguinal ligament, iliac crest, thoracolumbar fascia	Tenth, eleventh, and twelfth ribs; abdominal aponeurosis	Bilateral: Trunk flexion; compression of abdomen, Unilateral: Lateral bending; rotation to same side	Eighth through twelfth intercostals, iliohypogastric, and ilioinguinal nerves
Transverse abdominis	Inguinal ligament, iliac crest, thoracolumbar fascia, and last six ribs	Abdominal aponeurosis and linea alba	Compression of abdomen	Seventh through twelfth intercostals, iliohypogastric, and ilioinguinal nerves
<u>Erector spinae</u>				
Spinalis thoracis	Spinous processes of inferior thoracic (T11-12) and superior lumbar vertebral (L1-2)	Spinous processes of superior thoracic vertebra (T1-8)	Bilateral: Extension of vertebral column, Unilateral: Lateral bend	Thoracic and lumbar spinal nerves
Longissimus thoracis	Transverse processes of lumbar vertebra	Transverse processes of all thoracic vertebra and inferior surface of ribs (9-10)	Same as above	Same as above
Iliocostalis thoracis	Superior borders of inferior six/seven ribs	Upper ribs (first 6) and transverse process of 7th cervical vertebra	Same as above	Upper 6 Thoracic spinal nerves
Iliocostalis Lumborum	Iliac crest	Inferior borders of ribs 6 to 12	Same as above	Lower Thoracic and upper Lumbar spinal nerves
Quadratus Lumborum	Iliac crest and iliolumbar ligament	Inferior border of 12 th rib and first four lumbar vertebrae	Same as above, Fixes 12 th rib during deep inhalation	Spinal nerves T12, L1-L4
Diaphragm	Xiphoid process, ribs, lumbar vertebra	Central tendon	Inspiration	Phrenic nerve