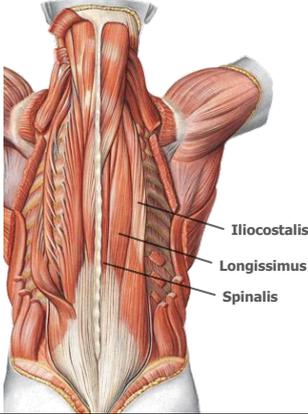
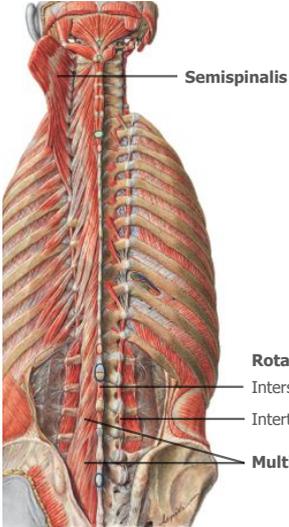
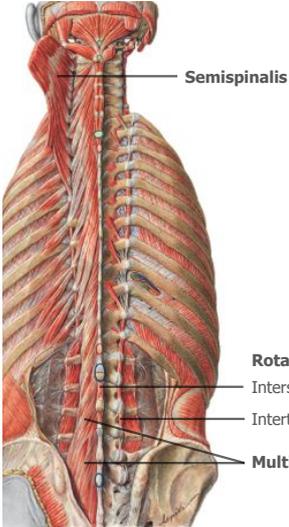


Muscles	Action	Location/Features	Origin	Insertion
<b>Erector Spinae</b> - Lies in a groove on each side of the vertebral column, and it is the major extensor of the vertebral column; Intrinsic/deep; Intermediate layer of intrinsic back muscles				
<b>Iliocostalis:</b> Lumorum thoracis, and cervicis	Extensor of the trunk Stabilises the vertebrae Keeps individual upright  <u>Acting bilaterally:</u>	Runs next to the longissimus	Arises by broad tendon from posterior part of iliac crest, posterior surface of sacrum, sacro- iliac ligaments,	Fibres run superiorly to angles of lower ribs and cervical transverse processes
<b>Longissimus:</b> Thoracis, cervicis and capitis	extend vertebral column and head; as back is flexes, control movement by gradually lengthening their fibres  <u>Acting unilaterally:</u> laterally flex vertebral column	Runs next to the spinalis Quite large 	sacro- iliac ligaments, sacral and inferior lumbar spinous processes and supraspinous ligament	Fibres run superiorly to ribs between tubercles and angle to transverse processes in thoracic and cervical regions and to mastoid process of temporal bone
<b>Spinalis:</b> Thoracic, cervicis and capitis		Runs along the spinal processes		Fibres run superiorly to spinous processes in upper thoracic region and to cranium
<b>Transversospinalis group</b> - found in the groove between the transverse and spinous processes				
Muscles	Action	Location/Features	Origin	Insertion
<b>Semispinalis</b>	Extends head and thoracic and cervical regions of vertebral column and rotates them contra-laterally	Deep within the back Along and within the vertebrae 	Arises from transverse processes of C4 – T10 vertebrae	Fibres run supero- medially to occipital bone and spinous processes in upper thoracic and cervical regions, spanning four to six segments
<b>Multifidi</b>	Unilateral contractions rotates to contra-lateral side Stabilises vertebrae and assist with local extension and rotatory movements of vertebral column	 Rotatores Interspinales Intertransverse Multifidi	Arises from posterior sacrum, posterior superior iliac spine of ilium, aponeurosis of erector spinae, sacro-iliac ligaments,	Thickest in lumbar region, fibres pass obliquely supero- medially to entire length of spinous processes of vertebrae

			mammillary processes of thoracic vertebrae, and articular process of C4 – C7	located two to four segments superior to origin
<b>Rotatores:</b> Brevis and longus	May function as organs of proprioception Possibly stabilise vertebrae and assists vertebrae and assists with local extension and rotatory movements of vertebral column		Arise from transverse processes of vertebrae Are best developed in thoracic region	May function as organs of proprioception Possibly stabilise vertebrae and assist with local extension and rotatory movements of vertebral column
<b>Minor deep layer of intrinsic back muscles</b>				
<b>Muscles</b>	<b>Action</b>	<b>Location/Features</b>	<b>Origin</b>	<b>Insertion</b>
<b>Interspinales</b>	Aid in extension and rotation of vertebral column	Interspinalis = between the spinous processes of the vertebrae	Superior surfaces of spinous processes of cervical and lumbar vertebrae	Inferior surfaces of spinous processes of vertebrae superior to vertebrae origin
<b>Inter-transversarii</b>	Aid in lateral flexion of vertebral column Acting bilaterally, stabilise vertebral column		Transverse processes of cervical and lumbar vertebrae	Transverse process of adjacent vertebrae