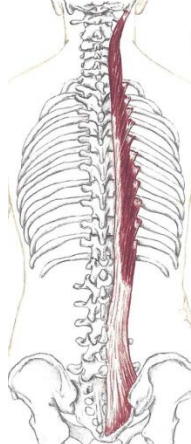
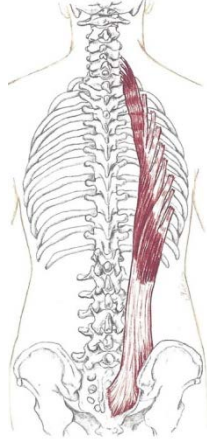
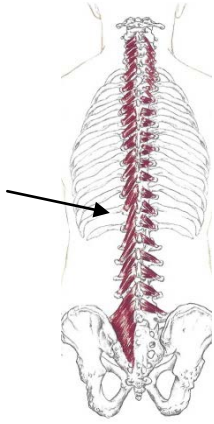
	<p style="text-align: center;">Spinalis</p>	<p>Origin</p> <ul style="list-style-type: none"> <li>• SP of the upper lumbar and lower thoracic vertebrae</li> <li>• Ligamentum nuchae</li> <li>• SP of C7</li> </ul> <p>Insertion</p> <ul style="list-style-type: none"> <li>• Sp of upper thoracic</li> <li>• SP of cervical, except C1</li> </ul>
<p>Action</p> <ul style="list-style-type: none"> <li>• Extension of the spine</li> <li>• Lateral flexion of the spine</li> </ul>		<p style="text-align: center;">Longissimus</p>
<p>Origin</p> <ul style="list-style-type: none"> <li>• TP C7-T9</li> <li>• Thoracolumbar Aponeurosis</li> </ul> <p>Insertion</p> <ul style="list-style-type: none"> <li>• Mastoid process of the temporal bone</li> <li>• TP C1-C6</li> <li>• TP of all thoracic Vertebrae</li> </ul>	<p>Action</p> <ul style="list-style-type: none"> <li>• Extension of the spine</li> <li>• Lateral Flexion of the spine</li> </ul>	
<p style="text-align: center;">Iliocostalis</p>	<p>Origin</p> <ul style="list-style-type: none"> <li>• Posterior, superior surfaces of ribs 1-12</li> <li>• Common Tendon (Thoracolumbar aponeurosis)</li> </ul> <p>Insertion</p> <ul style="list-style-type: none"> <li>• TP L1-3</li> <li>• Posterior surface of all ribs</li> <li>• TP of lower cervicals</li> </ul>	<p>Action</p> <ul style="list-style-type: none"> <li>• Extension of the spine</li> <li>• Lateral flexion of the spine</li> </ul>



Multifidi

Origin

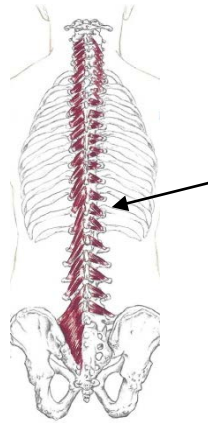
- Sacrum
- TP of all vertebrae

Insertion

- SP of all vertebrae: 2-4 vertebrae above origin

Action

- Extension of spine
- Rotation of spine to opposite side



Rotatores

Origin

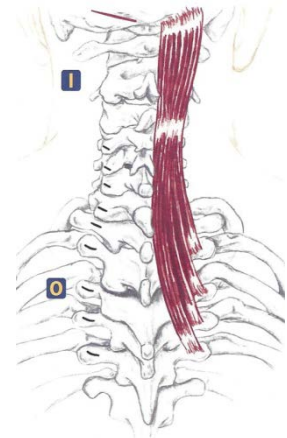
- TP of all vertebrae

Insertion

- SP of all vertebrae, 1-2 vertebrae above origin

Action

- Rotation of spine to the opposite side
- Extension of spine



Semispinalis

Origin

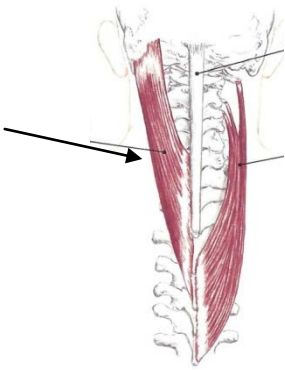
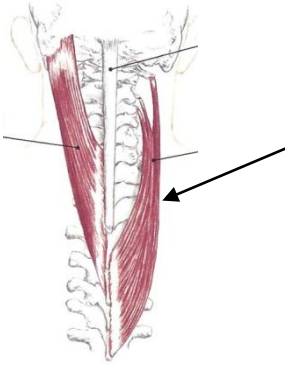
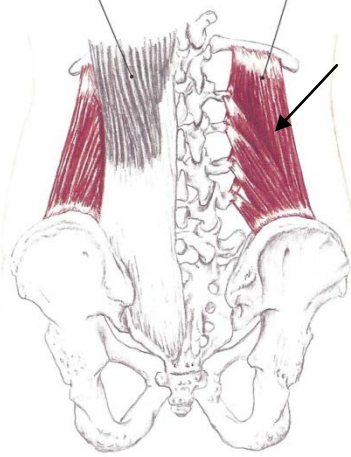
- TP of C4-T5

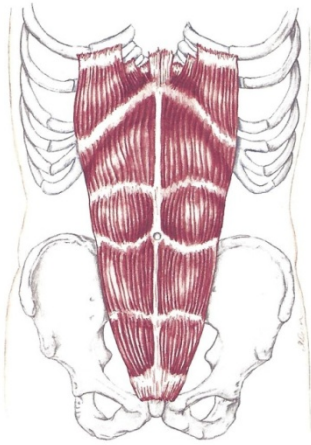
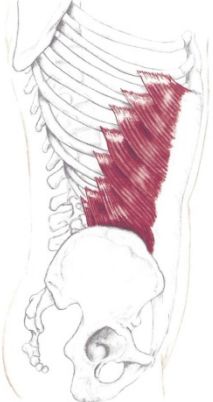
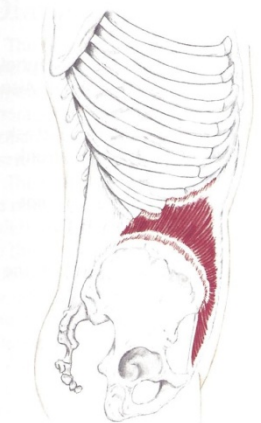
Insertion

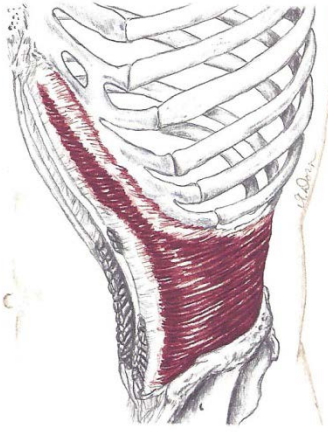
- Occipital bone

Action

- Extend the vertebral column and head

	<p style="text-align: center;">Splenius Capitis</p>	<p><b>Origin</b></p> <ul style="list-style-type: none"> <li>• Inferior ½ of Ligamentum nuchae</li> <li>• SP of C7-T4</li> </ul> <p><b>Insertion</b></p> <ul style="list-style-type: none"> <li>• Mastoid process</li> <li>• Occipital Bone</li> </ul>
<p><b>Action</b></p> <ul style="list-style-type: none"> <li>• Extension of the head and neck</li> <li>• Lateral flexion of the head and neck</li> <li>• Rotation of the head and neck to the same side</li> </ul>		<p style="text-align: center;">Splenius Cervicis</p>
<p><b>Origin</b></p> <ul style="list-style-type: none"> <li>• TP of T3-T6</li> </ul> <p><b>Insertion</b></p> <ul style="list-style-type: none"> <li>• TP of C1-C3</li> </ul>	<p><b>Action</b></p> <ul style="list-style-type: none"> <li>• Extension of the head and neck</li> <li>• Lateral flexion of the head and neck</li> <li>• Rotation of the head and neck to the same side</li> </ul>	
<p style="text-align: center;">Quadratus Lumborum</p>	<p><b>Origin</b></p> <ul style="list-style-type: none"> <li>• Posterior Iliac Crest</li> </ul> <p><b>Insertion</b></p> <ul style="list-style-type: none"> <li>• Inferior surface of 12<sup>th</sup> rib</li> <li>• TP of L1-L4</li> </ul>	<p><b>Action</b></p> <ul style="list-style-type: none"> <li>• Lateral flexion of the lumbar spine to the same side</li> <li>• Laterally tilt (elevate) the pelvis</li> <li>• Assist to extend the vertebral column</li> <li>• Fix the last rib during forced inhalation and exhalation</li> </ul>

	<p style="text-align: center;">Rectus Abdominis</p>	<p>Origin</p> <ul style="list-style-type: none"> <li>• Pubic crest</li> <li>• Pubic symphysis</li> </ul> <p>Insertion</p> <ul style="list-style-type: none"> <li>• Costal Cartilage of 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> ribs</li> <li>• Xiphoid process</li> </ul>
<p>Action</p> <ul style="list-style-type: none"> <li>• Flex the vertebral column</li> <li>• Tilt pelvis posteriorly</li> </ul>		<p style="text-align: center;">External Oblique</p>
<p>Origin</p> <ul style="list-style-type: none"> <li>• Lateral surface of ribs 5-12</li> </ul> <p>Insertion</p> <ul style="list-style-type: none"> <li>• Anterior iliac crest</li> <li>• Abdominal aponeurosis</li> </ul>	<p>Action</p> <ul style="list-style-type: none"> <li>• Lateral flexion of the trunk to same side</li> <li>• Rotate vertebral column to the opposite side</li> <li>• Flex the vertebral column</li> <li>• Compress abdominal contents</li> </ul>	
<p style="text-align: center;">Internal Oblique</p>	<p>Origin</p> <ul style="list-style-type: none"> <li>• Lateral inguinal ligament</li> <li>• Iliac crest</li> <li>• Thoracolumbar fascia</li> </ul> <p>Insertion</p> <ul style="list-style-type: none"> <li>• Internal surface of lower 3 ribs</li> <li>• Abdominal aponeurosis</li> </ul>	<p>Action</p> <ul style="list-style-type: none"> <li>• Lateral flexion of the trunk to the same side</li> <li>• Rotate vertebral column to the same side</li> <li>• Flex the vertebral column</li> <li>• Compress abdominal contents</li> </ul>



Transverse Abdominis

Origin

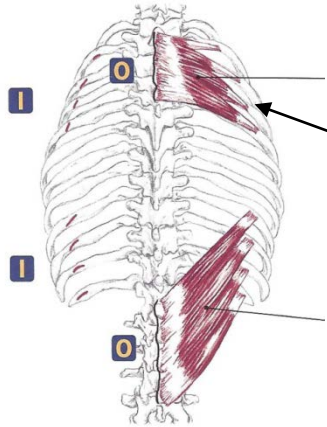
- Lateral surfaces of ribs 5-12

Insertion

- Anterior Iliac Crest
- Abdominal aponeurosis

Action

- Compress abdominal contents



Serratus Posterior Superior

Origin

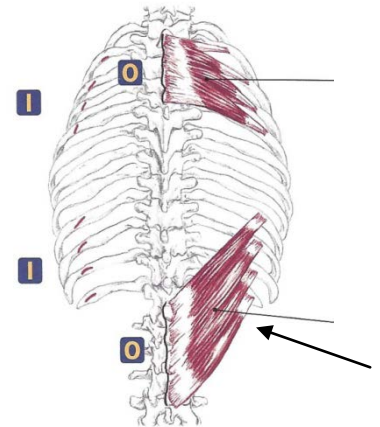
- SP of C7 to T3

Insertion

- Posterior surface of second through fifth ribs

Action

- Elevate the ribs during inhalation



Serratus Posterior Inferior

Origin

- SP of T12-L3

Insertion

- Posterior surface of ninth through twelfth ribs

Action

- Depress the ribs during exhalation