

Unit 2, Lab 2

PTA/OTA 106 Regional Anatomy and Physiology

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Updated: Fall 2014

Muscles of the Thoracic Region to review:

Please see the attached list for detailed information. For each muscle you need to know location, origin, insertion, action and innervation. Because of the way I have structured regional anatomy you will see some of the muscle again in the next unit.

The Muscles of Respiration

Inspiration:

- *Diaphragm
- External Intercostal
- *Scalenes (anterior, medial and posterior)
- *Sternocleidomastoid

Expiration:

- Internal Intercostals
- *External Oblique
- *Internal Oblique
- *transverses Abdominis
- *Rectus Abdominis

Muscles of the Vertebral column associated with the Thoracic and Lumbar regions

- *Spinalis thoracis
- *Longissimus thoracis
- *Iliocostalis thoracis
- *Iliocostalis lumborum
- *Quadratus lumborum

Muscles of the Pectoral Girdle associated with Thoracic region

- *Levator scapulae
- *Trapezius (upper, lower, middle)
- *Deltoid (anterior, middle, posterior)
- *Pectoralis minor
- *Pectoralis major
- *Rhomboid major
- *Rhomboid minor
- *Serratus anterior
- *subclavius
- *Latissimus dorsi

Muscle of the Pelvic wall and floor

- Levator Ani
- Coccygeus
- Obturator internus
- Piriformis

Spinal Cord Anatomy and Spinal Nerves

Spinal Cord Meninges:

Dura mater	Arachnoid mater	Subarachnoid space
Pia mater		

External Anatomy of Spinal Cord:

Ventral root	Dorsal root	Dorsal root ganglion
cervical enlargement	lumbar enlargement	conus medullaris
filum terminale	cauda equine	

Internal Anatomy of Spinal Cord:

Ventral horn	Dorsal horn	Lateral horn
Dorsal Gray commissure	Ventral gray commissure	Central canal
Posterior column	Lateral column	Anterior column
Anterior Median Fissure	Posterior Median Sulcus	

Organization of tissue in Spinal Cord:

White Matter – Nerve fibers, Myelin Sheath, Neuroglia nuclei

Grey Matter - Motor neuron cell bodies, nerve fibers, Neuroglia nuclei

Spinal Nerve Plexuses:

Brachial (C5-T1)

Nerve	Origin or Roots	Cord
<i>Musculocutaneous</i>	<i>C5-C7</i>	<i>lateral</i>
<i>Axillary</i>	<i>C5-C6</i>	<i>posterior</i>
<i>Median</i>	<i>C6-T1</i>	<i>lateral and medial</i>
<i>Radial</i>	<i>C5-C6</i>	<i>posterior</i>
<i>Ulnar</i>	<i>C7-T1</i>	<i>medial</i>

Lumbar (L1-L4)

Nerve	Origin or Roots
<i>Femoral</i>	<i>L2-L4</i>
<i>Obturator</i>	<i>L2-L4</i>

Sacral (L4-S4)

Nerve	Origin or Roots
<i>Superior gluteal</i>	<i>L4-S1</i>
<i>Inferior gluteal</i>	<i>L5-S2</i>
<i>Posterior cutaneous</i>	<i>S1-S3</i>
<i>Sciatic</i>	<i>L4-S3</i>