



This lab involves study of the laboratory exercise "*Gross Anatomy of the Muscular System*". Complete the Review Sheet for the exercise and fill in the muscle tabels and illustrations in the Lab Manual. Take the relevant quiz. This lab is designed to be done over two weeks. In the first week the student should study the "upper body muscles" of the head and neck, arms and shoulders. In the second week the study is of the muscles of the abdomen, back, and legs. The quizzes for these sections are separate as well.

There is a good web site for studying the location and action of each muscle: http://www.meddean.luc.edu/lumen/MedEd/GrossAnatomy/dissector/mml/index.htm

Click on the sound icon for the audio file (mp3 format) for each slide. There is also a link to a dowloadable mp4 video which can be played on an iPod.

Muscle Actions



- Antagonists muscles which perform opposite movements
- Synergists muscles which work together to perform a movement. Often this movement is different from that which either would perform when acting alone.
- Fixators Muscles which act to hold a part of the body steady.





These muscles of facial expression insert on connective tissues at the corners of the mouth.





Many large muscles can contract certain portions alone. The **trapezius** can contract the upper portion alone to extend the head and neck. Muscles identified in blue are shown on the LUMEN muscle site http://www.meddean.luc.edu/lumen/MedEd/GrossAnatomy/dissector/mml/index.htm







The **longissimus capitus** and semispinalis capitus are extensors of the head, synergistic with the splenius capitus and upper **trapezius**. The **erector spinae** consists of three groups of muscles which extend the vertebral column. They are important postural muscles, along with the **quadratus lumborum** which bilaterally helps to extend the lumbar vertebrae, and unilaterally abducts them. It is the quadratus which is often strained with improper heavy lifting.





























The flexor

retinaculum is tendinous band which holds the flexor tendons in position. The small groove through which these tendons pass is called the **carpal tunnel**, and tendonitis in this region is called **carpal tunnel syndrome**.





Lab Protocol for the Upper Body Muscles 1) Study the muscles indicated in the lab manual for this lab.

a) Use the links from the Muscle Actions Page

b) Use the ADAM software as indicated in the lab manual

2) Take the quiz for the upper body muscles.

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Lab Protocol for the Lower Body Muscles

1) Study the muscles indicated in the lab manual for this lab.

a) Use the links from the Muscle Actions Page

b) Use the ADAM software as indicated in the lab manual

2) Take the quiz for the lower body muscles.

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