

Module 7 - The Muscular System

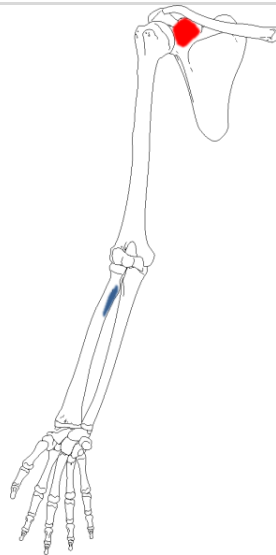
Muscles of the Arm and Trunk

This Module will cover the muscle anatomy of the arms and trunk. We have already seen the muscles that move the humerus, so this module will start with the muscles that move the rest of the arm and then the trunk.

LIST OF TERMS TO KNOW FOR THE MUSCLES OF THE ARM AND TRUNK

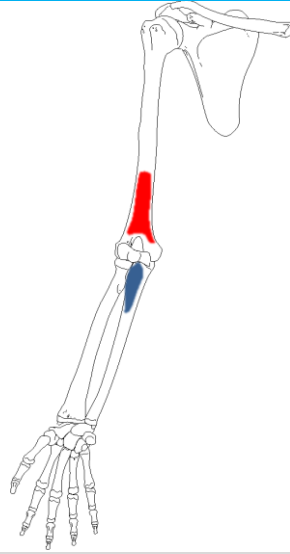
Muscles Acting on the Forearm

- **Biceps Brachii**



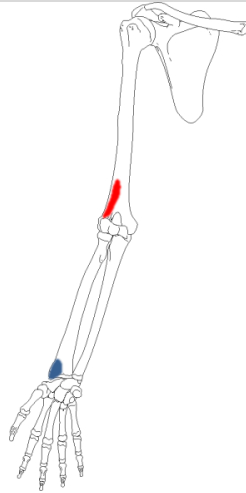
Action: Flexes and helps supinate the forearm at the elbow

- **Brachialis**



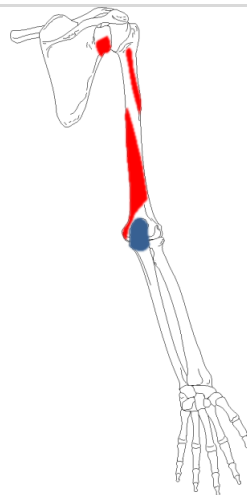
Action: Flexes the forearm at the elbow

- **Brachioradialis**



Action: Flexes and helps pronate the forearm at the elbow

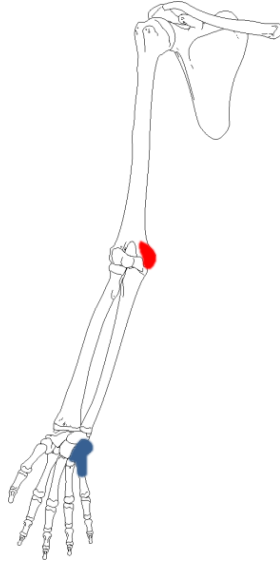
- **Triceps Brachii**



Action: Extends the forearm at the elbow

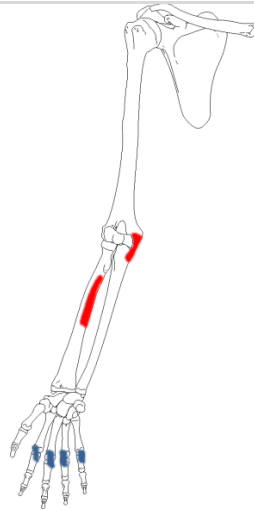
Muscles of that Move the Hand

- **Flexor Carpi Ulnaris**



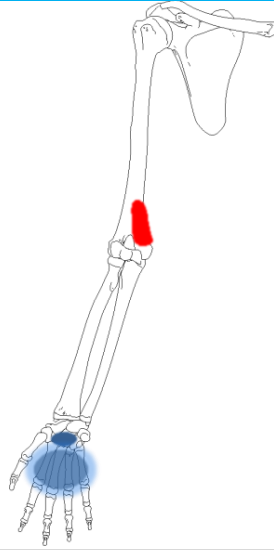
Action: Flexes hand at the wrist

- **Flexor Digitorum Superficialis**



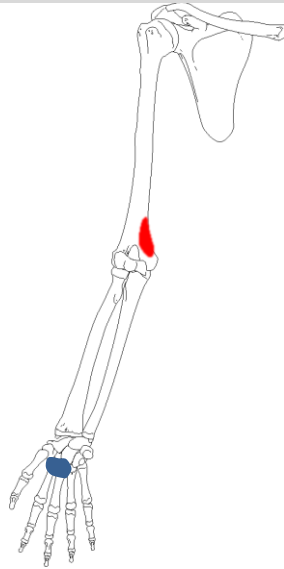
Action: Flexes fingers at the Middle Phalanges

- **Palmaris Longus**



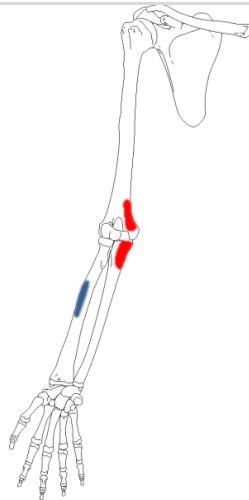
Action: Turns Head side to side and flexes the neck

- **Flexor Carpi Radialis**

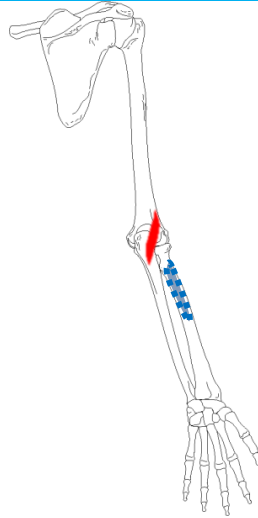


Action: Turns Head side to side and flexes the neck

- **Pronator Teres**



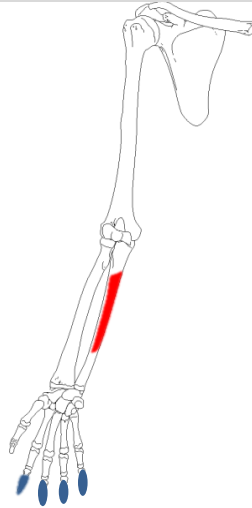
- **Supinator**



*Notice that the insertion on this posterior view of the arm is actually on the front of the radius.

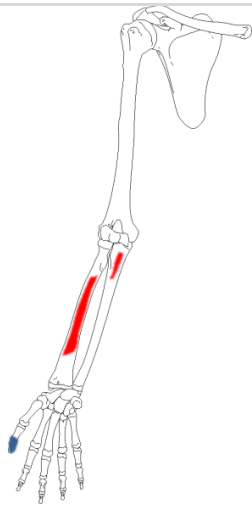
Action: Supinates the forearm and hand

- **Flexor Digitorum Profundus**



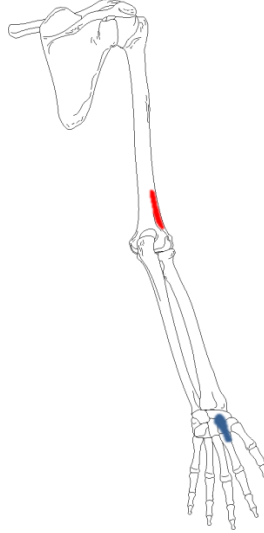
Action: Flexes the finger digits (or digits 2-5) at the distal phalanges and helps flex the wrist

- **Flexor Pollicis Longus**



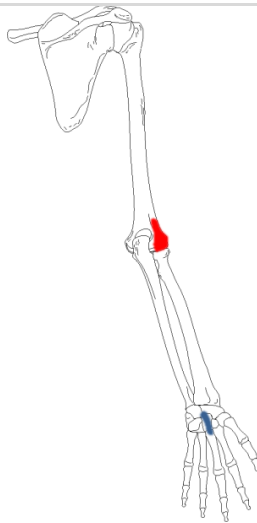
Action: Flexes the first digit or thumb at the distal phalanx

- **Extensor Carpi Radialis Longus**



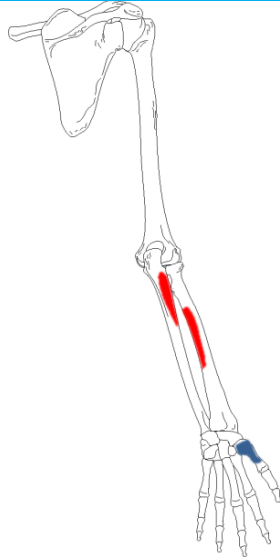
Action: Extends the wrist on the radial side

- **Extensor Carpi Radialis Brevis**



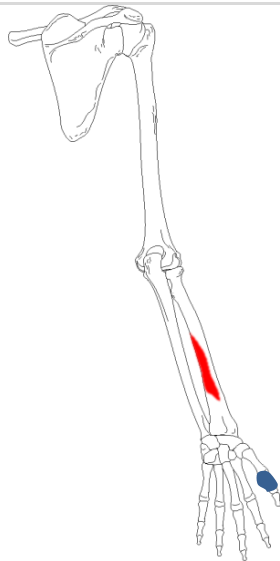
Action: Extends the wrist on the radial side

- **Abductor Pollicis Longus**



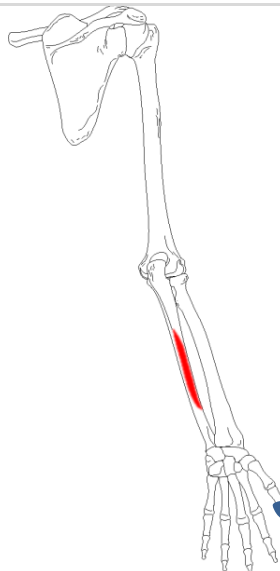
Action: Abducts the first digit or thumb and can help with thumb extension.

- **Extensor Pollicis Brevis**



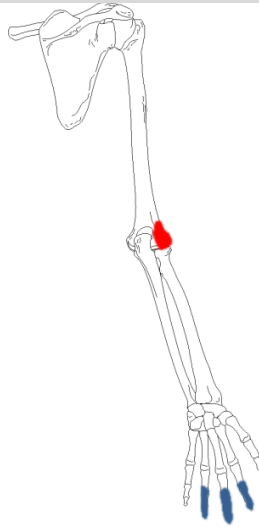
Action: Extends the thumb and helps with thumb abduction

- **Extensor Pollicis Longus**



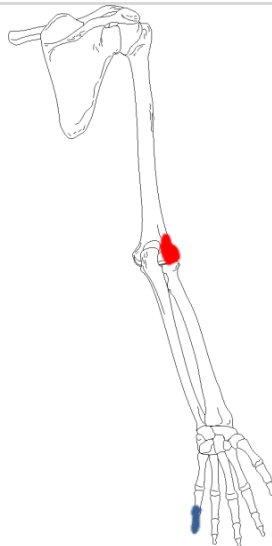
Action: Extends the thumb and helps with thumb abduction

- **Extensor Digitorum**



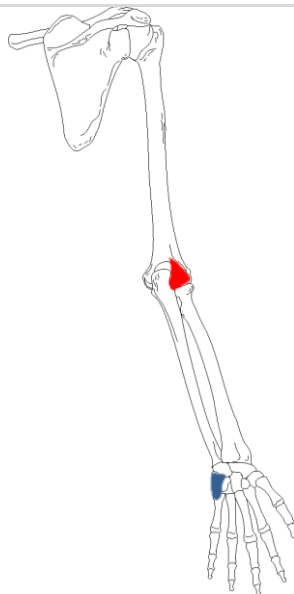
Action: Extends the digits 2-4 and can help with wrist extension

- **Extensor Digiti Minimi**



Action: Extends the digit 5 and can help with wrist extension

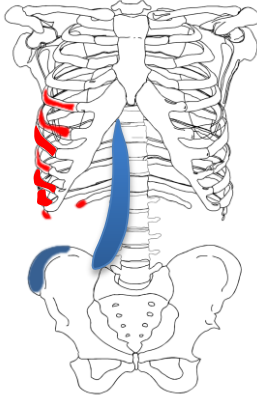
- **Extensor Carpi Ulnaris**



Action: Extends the wrist on the ulnar side

Muscles of the Abdominal Wall

- **External Abdominal Oblique**

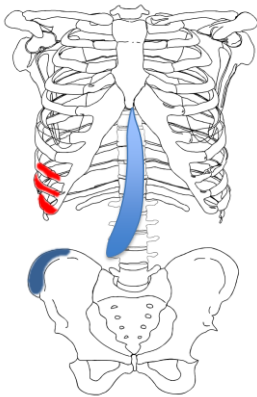


Action: Lumbar flexion and also laterally flexes the vertebral column

- **Inguinal Ligament**

This ligament is a band of dense connective tissue that runs over the top and contains the blood vessels, nerves and other soft tissues that run from inside the trunk to the lower extremity.

- **Internal Abdominal Oblique**

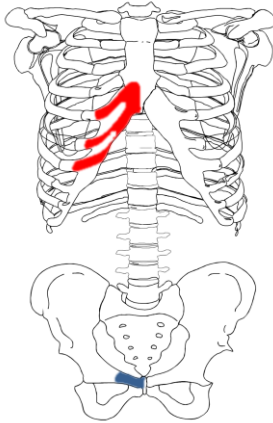


Action: Lumbar flexion and also laterally flexes the vertebral column

- **Linea Alba**

A dense connective tissue band that runs down the midline of the abdomen. It is formed by the fusion of the aponeuroses of the of the abdominal muscles. In humans it would be the vertical depression between the right and left halves of a "six pack".

- **Rectus Abdominis**



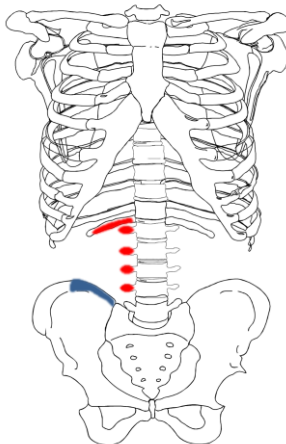
Action: Flexes the vertebral column, helps compress the contents of the abdomen and helps tilt the pelvis anteriorly

- **Transverse Abdominis**

This muscle is deep. It is deeper than the internal abdominal obliques. This muscle runs fairly parallel to the floor in a standing person. The Transverse Abdominal muscles are important for compressing the abdominal contents. You are not required to know origin and insertion for this muscle.

Muscles of the Vertebral Column

- **Quadratus Lumborum**



Action: Lumbar extension. Helps tilt the pelvis anteriorly and helps with lateral flexion of the vertebral column.

- **Sacrospinalis (Also called the Erector Spinae)**

The sacrospinalis muscles or erector spinae are really a group of muscles that are found in three regions.

- The Iliocostalis group: These muscle arise from the common erector spinae origin that includes the sacrum, ilium and low back. The fibers connect to various ribs along the posterior trunk.
- The Longissimus group: These fibers arise from the common erector spinae origin. Fibers also arise from various ribs and ultimately these fibers form bands of muscle that blend together to travel all the way to the posterior skull
- The Spinalis group: These fibers arise and insert on the spinous processes of the vertebrae. The bands of muscle formed can be a variety of lengths. Ultimately, however the muscle tissue appears to form a pattern of muscle that extends along the length of the vertebral spinous processes.

You are not required to know origin, insertion and action for this muscle group, but you should be able to recognize it from almost any picture if you understand the descriptions to the right.