Human Anatomy      Skeletal Muscles                Mr. Hott

There are over 600 skeletal muscles in the human body.   Typically they make up 36% of a females weight and 42% of a males weight. They typically weigh 3x as much as bone.

Skeletal muscles are attached to our bones by tendons. Tendons can be ropy or like ropes and they can be in sheets. For example bend your hand toward you. Do you see the “ropes”? Or feel the back of your knee on the outside edges when your leg is bent. These are tendons. An example of a sheet of tendon would be the top of your head. From your hairline in the front to approximately the base of your skull in the back of your head runs a sheet of tendon called the galea aponeurotica or the galea aponeurosis. This is what makes it so easy to scalp someone.

Skeletal muscles only move in one direction, they pull. They don’t push. So if you move a body part in one direction then there is a muscle to move that body part in the opposite direction. For instance the biceps brachii will flex your forearm (flexion) but it can’t extend your forearm. It can only pull. The triceps brachii must extend your forearm. So the biceps brachii is the **prime mover** for forearm flexion. The triceps brachii is the **antagonist** to the biceps brachii. It moves oppositely. Most muscles have helper muscles to help in the movement. These muscles are call **synergists** or helper muscles. For instance in flexion of the forearm there are 3 muscles that are synergists to the biceps brachii.

**MUSCLE NAMES**

Muscle names are unique. The muscle name can tell you a lot about the muscle. Here are some reasons they are given their unique names.

1. BY THEIR ACTION.
   1. FLEXORS – decrease the angle between two body parts
   2. EXTENSORS – increase the angle between two body parts
   3. ABDUCTORS – move a body part away from midline ie) Hip Abductors
   4. ADDUCTORS – move a body part toward midline
   5. LEVATORS – lift a body part
   6. DEPRESSORS – lower a body part
2. BY THEIR LOCATION
   1. Tibialis anterior – front of the lower leg
   2. Pectoralis major – chest
   3. Deltoid – shoulder
   4. Latissimus dorsi – side and back
3. BY THEIR SHAPE
   1. Deltoid – triangle
   2. Rhomboid – rhombus
   3. Trapezius – trapezoid
4. BY THEIR SIZE
   1. Magnus – big
   2. Minimus – small
   3. Major – big
   4. Minor – small
   5. Longus – long
   6. Brevis – short
5. NUMBER OF HEADS
   1. Biceps – 2 heads
   2. Triceps – 3 heads
   3. Quadriceps – 4 heads
6. DIRECTION OF FIBERS
   1. Rectus – straight (up & down)
   2. Transverse – across
   3. Oblique – at an angle

Do the following coloring sheets: (as you do the coloring sheets the small writing on each page provides a great deal of information)

Head muscles- only color A, D-G, I-M, O-R as well as Temporalis, Masseter, Sternocleidomastoid, & Trapezius

Deep Muscles of the Back – only color the B muscles, the Erector Spinae muscles.

Abdominal Muscles pg. #51: Color A-D

Muscles of Scapular Stabilization #54: Color A,B, D, E

Movers of the Shoulder Joint #56: Color A-C, E-G

Movers of the Elbow #57: Color A-E, G-H

Muscles of the Gluteal Region #61:Color A-D

Muscles of the Posterior Thigh (hamstrings) #62: Color A-C

Muscles of the Medial Thigh (groin) #63: Color A-E

Muscles of the Anterior Thigh (quads) #64: Color A-E

Muscles of the Anterior and Lateral Leg #65: Color A, E & F

Muscles of the Posterior Leg #66: Color L & M

Full Body Muscles – read the directions on page 98 & 100 and then color pages 99 & 103