

I. Muscle

- A. Striated - usually skeletal muscles, except for tongue and eye muscles which are also striated--the voluntary muscles
- B. Smooth or involuntary muscle tissue--lines the walls of the viscera, blood vessels, ducts of glands
- C. Cardiac--walls of the heart striated with intercalated disks

II. Skeletal Muscles - about 45 % of body weight. About 700 muscles to move approximately 206 bones.

A. Structure

1. Muscle cell or fiber is about one inch to one and one half inches long, and about 10-110 microns in diameter, (reduce to millimeter micron is 1/1000 of M or 1/2500 of inch.
2. Sarcolemma covers muscle cell. The tendon fiber extends from the end of the cell to the tendon. The sarcolemma tends to fuse with these tendon fibers to the tendon.
3. Nuclei are along the edge of the muscle between the sarcolemma.
4. Sarcostyles or fibrilles are rodlike parts of the muscle. These are made up of separate compartments or segments called Sarcomeres. In these sarcomeres are light bands called the I bands (disk) and dark colored bands called the A. bands. The light colored bands contain certain potassium salts and is the fluid part. When the muscle contracts, the I bands become dark and the Q bands become lighter. The effect is like the opening and closing of a shutter. The I and A bands do not extend across the entire muscle cell. The two disks which extend across entire cell hold sarcomeres in place.

The myo-neuro-junction is the place where the nerve fiber joins the muscle cell; also called motor end plate.

Muscle cell

