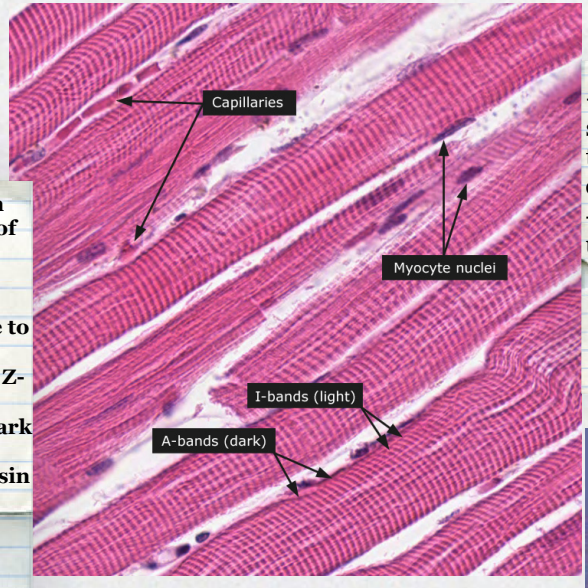
Skeletal Muscle Tissue

By: Morgan Yapundich

Structure and Function

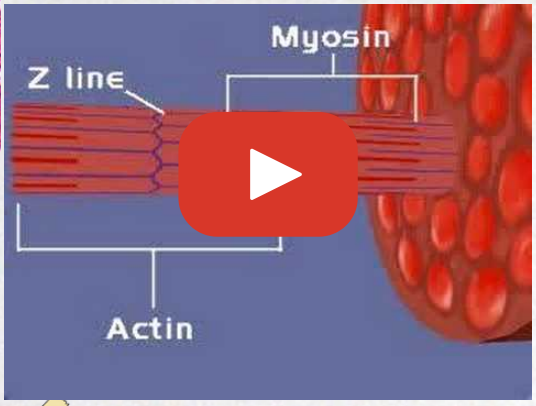
-Functions include: Produce skeletal movement (contractions pull tendons, move bones), Maintain posture and body position (by tension in skeletal muscles), support soft tissues (supports organs, shield internal tissues), guards entrances and exits (openings of digestive/urinary tracts), maintain body temperature (heat released by working muscles), stores nutrient reserves
-Skeletal muscle is the only voluntary muscle tissue in the human body-it's controlled consciously

-Striated muscle, so when stained with an indicator one can see alternating stripes of light and dark
-Made up of a bundle of muscle fibers. Muscle fiber contains myofibrils that are cylinders of proteins, which allow muscle to contract. Myofibrils contain 2 types of filaments, which are both attached to the Z-disk. These two filaments are the myosin and actin filaments, which produce the dark and light bands in the muscle to give striated appearance: A-bands (dark, myosin filaments) and I-bands (light, actin filaments)
-Layer of dense connective tissue (epimysium) surrounds each muscle



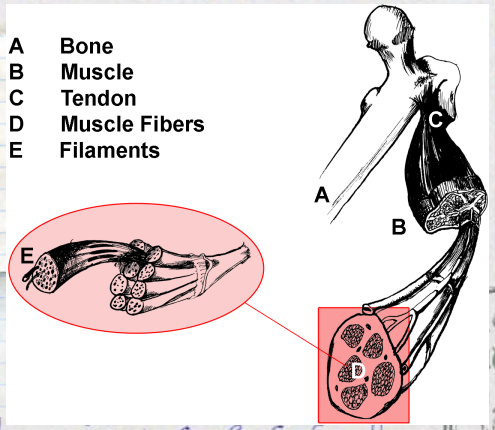
Interaction

-Skeletal muscle tissue interacts with mainly the skeletal organ system by providing protection of the bones, and by allowing movement through contractions.
- Guards entrances and exits of the digestive and urinary tracts



Location

-Skeletal muscle tissue is attached to the bones of the skeletal system
-Most skeletal muscles are attached to two bones through tendons
-Also located in facial muscles by being attached to other tissues like skin



Sources

-Skeletal muscle [Internet].:The Human Protein Atlas; [cited 2014 March 11] . Available from: http://www.proteinatlas.org/dictionary/normal/skeletal+muscle/detail+1/magnification+1
-Zierath J, Hawley J. 2004 Oct 12. Skeletal Muscle Fiber Type: Influence on Contractile and Metabolic Properties [Internet]. [cited 2014 March 11] . Available from: http://www.plosbiology.org/article/info%3Adoi%2F10.1371%2Fjournal.pbio.0020348
-Muscle Tissues [Internet]. [cited 2014 March 11] . Available from: http://www.botany.uwc.ac.za/sci_ed/grade10/mammal/muscle.htm
-Structure of Skeletal Muscle [Internet]. :National Cancer Institute; [cited 2014 March 11] . Available from: http://training.seer.cancer.gov/anatomy/muscular/structure.html
-ScientificVideoTV. Molecular Basis of Muscle Contraction [Internet]. [cited 2014 March 11] . Available from: http://www.youtube.com/watch?v=CvljJItVcs8