

# Muscle Anatomy Questions

1. Explain how you could determine if a particular physical motion was voluntary or involuntary.
  - o If it stops when you are unconscious, it is voluntary.
  
2. What are the three types of muscle tissue (tissue lab) and the functions of each?
  - o Skeletal - voluntary, body movements
  - o Smooth - involuntary organs (not heart)
  - o Cardiac - involuntary heart
  
3. Skeleton muscles are joined to bone by tough connective tissue called Tendons which are made of dense regular connective tissue (yes, tissue lab again).
  
4. What is the collective function of the "mesiums", the perimysium, epimysium, and endomysium in the belly of the muscle?
  - o To prevent tearing of the muscle from longitudinal pulling
  
5. Because skeleton muscle cells are long and slender, they are often called:
  - o Fibers
6. How do you tell the origin of a muscle from its insertion?
  - o Origin doesn't move, insertion does.
  
7. What does a fascicle contain and what is it surrounded by?
  - o Contains muscle cells, surrounded by dense regular
  
8. What would the name of the sarcolemma, sarcoplasm, and sarcoplasmic reticulum be if they were found in any other cell in your body but a muscle cell?
  - o Sarcolemma = cell membrane, sarcoplasm = cytoplasm, and sarcoplasmic reticulum = ER

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9. What common function do the Sarcolemma, Sarcoplasmic reticulum and T tubules perform in a muscle cell?

- Conduct electricity to signal a contraction

10. Thick filaments of skeleton muscle are composed of a protein called Myosin.

11. Thin filaments of skeleton muscle are composed of a protein called Actin.

12. Explain how the thick and thin filaments create the striped or "striated" pattern of skeletal muscle.

- The overlapping of actin and myosin

13. Where are Troponin and Tropomyosin located in relation to the Actin fibers?

- Tropomyosin wraps around the actin, troponin sits along the sides of the actin.

14. Why are troponin and tropomyosin referred to as "accessory proteins"?

- They control the contraction but they don't cause it.