

Ivy Tech APHY101 Muscles Part Two: Contractions

1. What are *myofibrils*? What surrounds each *myofibril* and what are myofibrils made of?
2. What are thin and thick myofilaments also known as?
3. What signal initiates a muscle contraction?
4. What is the *neuromuscular junction*?
5. What is *acetylcholine* (ACh)? What role does it play in muscle contraction?
6. What component of the muscle cell carries an *action potential* deep into the muscle?
7. What happens when a nerve impulse reaches the *sarcoplasmic reticulum* of a muscle cell?

8. What role does calcium ions (Ca^{+}) play in muscle contractions?
9. What are *troponin* and *tropomyosin*?
10. What happens once a *myosin head* binds to *actin*?
11. What enzyme is essential for the relaxation of muscles following a contraction?
12. What is a *motor unit*?
13. What is the difference between *action potentials* and *graded potentials*?
14. Define *temporal summation*.
15. What is *tetanus*?
16. What is a *twitch*?

