



**FOR REFERENCE PURPOSES ONLY -
THE QUIZ MUST BE PURCHASED AND COMPLETED ONLINE IN ORDER TO EARN CEUS**

Conference Video Quiz
Force Transmission and the Rate of Force Development


1. What is another term used to describe rate of force development?
 - A. muscular power
 - B. contraction velocity
 - C. explosive strength

2. How is rate of force development calculated?
 - A. change in force/change in time
 - B. (force x distance)/time
 - C. change in position/change in time

3. Why is rate of force development measured isometrically in single joints?
 - A. to protect the test subject from harm
 - B. to increase the precision of the test
 - C. to control for changes in velocity

4. How does the average rate of force development of a stronger athlete compare to that of a weaker athlete?
 - A. equal
 - B. lower
 - C. higher

5. What occurs when the velocity and rate of force development are increased?
 - A. activation threshold is lowered
 - B. less muscular force is produced
 - C. myofilament stiffness is increased

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6. In which phase of contraction is the individual variation in motor unit firing frequency the greatest?
 - A. midpoint
 - B. initial
 - C. final

 7. What contributes the most to rate of force development within the first 70 milliseconds?
 - A. nervous system
 - B. maximum strength
 - C. muscular size

 8. What is the release rate of calcium during an action potential in a Type II muscle fiber compared to a Type I muscle fiber?
 - A. lower
 - B. higher
 - C. equal

 9. What does gearing allow muscle fascicles to do?
 - A. increase their overall size
 - B. decrease shortening velocities
 - C. maintain rate of force development

 10. Why do longer muscles potentially produce a lower rate of force development?
 - A. They contain a lower proportion of Type II fibers.
 - B. There is a greater extent of series elastic substances.
 - C. Their insertion is farther away from their origin.