

Exercise physiology assignment

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How do muscle cells continuously synthesize ATP? A. Muscle cells constantly synthesize ATP by using creatine phosphate and metabolize glycogen and fats. 2. What is muscle fatigue? A. Muscle fatigue is the muscle's reduced ability to contract because of low amounts of ATP 3. Define Oxygen debt a. Oxygen debt is the amount of oxygen needed to refill what is lost and to get muscles back to normal 4. Why would a sprinter experience muscle fatigue before a marathon runner would? A sprinter would experience muscle fatigue before a marathon runner because they are putting more stress on their muscles and so their muscles will have a higher oxygen debt rather than how the marathon runner can run long distance because they aren't going full speed so they won't have as much as an oxygen debt. 5. Which activity would be more likely to create an oxygen debt in an individual who regularly exercises: swimming laps or lifting weights? A. Lifting weights would create an oxygen debt because it requires more strenuous movement of the muscles.

Even if it is only once it only takes one time to completely drain muscles of oxygen. 6. Which type of muscle fibers would you expect to predominate in the large leg muscles of someone who excels at endurance and activities such as cycling or long distance running? A. You would expect fast fibers to predominate in large leg muscles because fast muscles are used because they can reach a peak twitch tension really quickly as well as having densely packed myofibrils and large glycogen reserves.