

Case study: lactic acid essay



Even its levels are not same in all of the people who carry out same exercise. There are various psychological factors which also contribute to the level of Lactic acid. 2. What is the difference between aerobic and anaerobic respiration? The primary difference between aerobic and anaerobic respiration is that aerobic respiration involves the use of oxygen while anaerobic respiration does not involve oxygen. Cellular respiration is how cells produce energy in the form of adenosine triphosphate molecules.

Aerobic respiration also produces more energy than anaerobic respiration. A final difference between the two kinds of respiration is that aerobic respiration produces carbon dioxide and water as by products, while anaerobic respiration produces lactic acid. 3. Why is lactic acid formed even when the athlete is breathing oxygen? Lactic acid fermentation is the product of anaerobic respiration in the muscles and other parts of the body.

This typically occurs during exercise.

It is probably true that people don't stop breathing so there is oxygen entering the body but not enough to sustain intense exercise. Anaerobic respiration and lactic acid fermentation is a fast and efficient way of getting energy to the muscles, even if the consequence is lactic acid build up and a lower amount of ATP. If the muscles and other parts of the body need the energy fast, lactic acid fermentation is the key.

4. What is the final electron acceptor in aerobic respiration?

The final electron acceptor in aerobic respiration is the presence of oxygen, as all cells synthesize ATP via the process of glycolysis. 5. How is lactic acid

buildup dealt with by the body? Lactic acid is transported to the liver and oxidized to produce oxygen. This energy is used to convert the remaining lactic acid back into glucose when the body is no longer short of oxygen. When the lactic acid is used up, the oxygen debt is repaid.

Glucose is then transported back to the muscle.