

Anaerobic Respiration Handout

As you work your way through the anaerobic respiration lesson, answer the following questions to help you collect the relevant information.

1. What is fermentation?
2. When and how does it occur? What is the product?
3. What is the process of alcohol fermentation?
4. What is the reaction equation for alcohol fermentation from one pyruvate molecule?
5. What is the overall alcohol fermentation reaction equation from one molecule of glucose?

6. When and why does lactate fermentation occur?
7. What is the reaction equation for lactate fermentation from one molecule of pyruvate?
8. What is the overall lactate fermentation reaction equation from one molecule of glucose?
9. What is the relatively efficiency of anaerobic processes versus aerobic processes?
10. Imagine that a muscle cell had a limited number of mitochondria but a very high oxygen supply. If this muscle cell were required to generate a great deal of power, do you think it would benefit from lactate fermentation? Why or why not?