4:6 Fermentation

FERMENTATION: (anaerobic respiration) the breakdown of glucose to release energy carried out in the absence of oxygen

Fermentation releases FAR LESS energy than cellular respiration.

Yeasts use alcoholic fermentation, forming ethyl alcohol and CO2 as wastes. The equation for alcoholic fermentation after glycolysis:

Pyruvic Acid + NADH 🡪 alcohol + CO2 + NAD+

### Two Types of Fermentation

1. ALCOHOLIC FERMENTATION: anaerobic respiration carried out by yeasts and other microorganisms; 1 glucose produces ethyl alcohol, CO2, and 2 ATP
   * Causes bread dough to rise
   * Wine and Beer Industry
2. LACTIC ACID FERMENTATION: anaerobic respiration carried out by animal tissues (such as muscle) that are not getting enough oxygen; 1 glucose produces lactic acid and 2 ATP
   * Produced in your muscles during rapid exercise when the body cannot supply enough oxygen to tissues