

**KEY FACTS**

- Anaerobic = WITHOUT oxygen. Releases much LESS energy than aerobic.
- Animals/bacteria: glucose → LACTIC ACID + small energy
- Yeast/plants (fermentation): glucose → ETHANOL + CO<sub>2</sub> + small energy
- Lactic acid causes muscle fatigue and burning sensation
- Oxygen debt: extra O<sub>2</sub> after exercise to break down lactic acid (in liver)
- Fermentation used commercially: brewing (ethanol) and bread-making (CO<sub>2</sub>)

**EQUATIONS / FORMULAS**

**Anaerobic (animals):** glucose → lactic acid + energy

**Fermentation (yeast):** glucose → ethanol + CO<sub>2</sub> + energy

**KEY TERMS**

<b>Anaerobic respiration</b>	Without oxygen — produces lactic acid (animals) or ethanol+CO <sub>2</sub> (yeast)
<b>Fermentation</b>	Anaerobic respiration in yeast — used in brewing and baking
<b>Oxygen debt</b>	Extra O <sub>2</sub> needed after anaerobic exercise to remove lactic acid

■ EXAM TIP: Animals → LACTIC ACID. Yeast → ETHANOL + CO<sub>2</sub>. Never mix these up. Oxygen debt = lactic acid removal, not "paying back" oxygen used in respiration.