

Respiration

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Uses of energy

muscle contraction protein synthesis active transport
body temperature

Yeast investigation

vary temperature count CO₂ bubbles control variables

Aerobic respiration

uses oxygen glucose + oxygen → CO₂ + water

Anaerobic respiration

no oxygen much less energy yeast: alcohol + CO₂
muscles: lactic acid

Balanced equations **Supplement**

$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$ $C_6H_{12}O_6 \rightarrow 2C_2H_5OH + 2CO_2$

Oxygen debt **Supplement**

lactic acid builds up fast heart rate deeper breathing
liver: aerobic respiration