

Cellular Respiration

Biology

The four stages, where each happens, and the ATP yield.

Aerobic respiration of one glucose molecule.

Stage	Location	Net ATP
Glycolysis	Cytoplasm	2 ATP, 2 NADH
Link reaction	Mitochondrial matrix	2 NADH
Krebs cycle	Matrix	2 ATP, 6 NADH, 2 FADH ₂
Oxidative phosphorylation	Inner membrane	~26–28 ATP
Total		~30–32 ATP

Anaerobically, glycolysis alone yields 2 ATP. That fifteen-fold difference is why oxygen matters so much.