

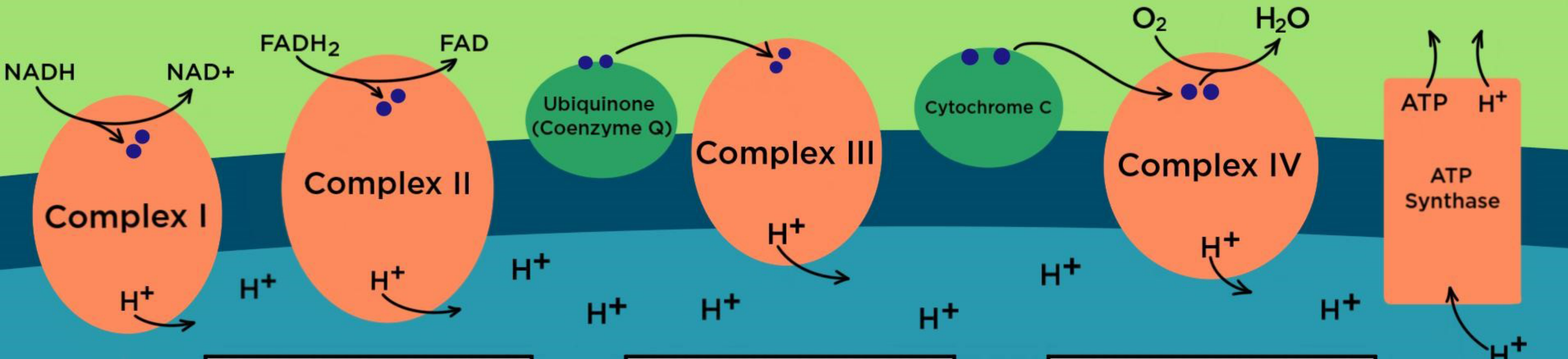
Electron Transport Chain

In Complex I, NADH from glycolysis and Krebs cycle is oxidized to NAD⁺. It passes off 2 protons and 2 electrons and H⁺ ions are pumped into the intermembrane space.

Electrons from Complex I and Complex II are transferred to a carrier called ubiquinone Q. This molecule carries the electrons to Complex III.

Electrons in Complex III are picked up by cytochrome C, another carrier molecule. This molecule carries the electrons to Complex IV.

H⁺ ions need to cross the membrane to balance the concentration gradient. They use ATP Synthase to do this. As the ions pass through, the pump makes ATP.



FADH₂ from glycolysis and Krebs cycle is oxidized to FAD by Complex II. It also releases H⁺ ions into the intermembrane space and passes off electrons.

Complex III accepts the electrons brought in by ubiquinone Q and pumps more H⁺ ions into the intermembrane space.

In Complex IV, a reaction with O₂ produces H₂O. More H⁺ ions are pumped into the intermembrane space. By now, the concentration of H⁺ ions is very high.