

Vocabulary

- Cellular Respiration

- Glucose

- ATP

- Glycolysis

- Pyruvate

- Acetyl-CoA

- NADH

- FADH₂

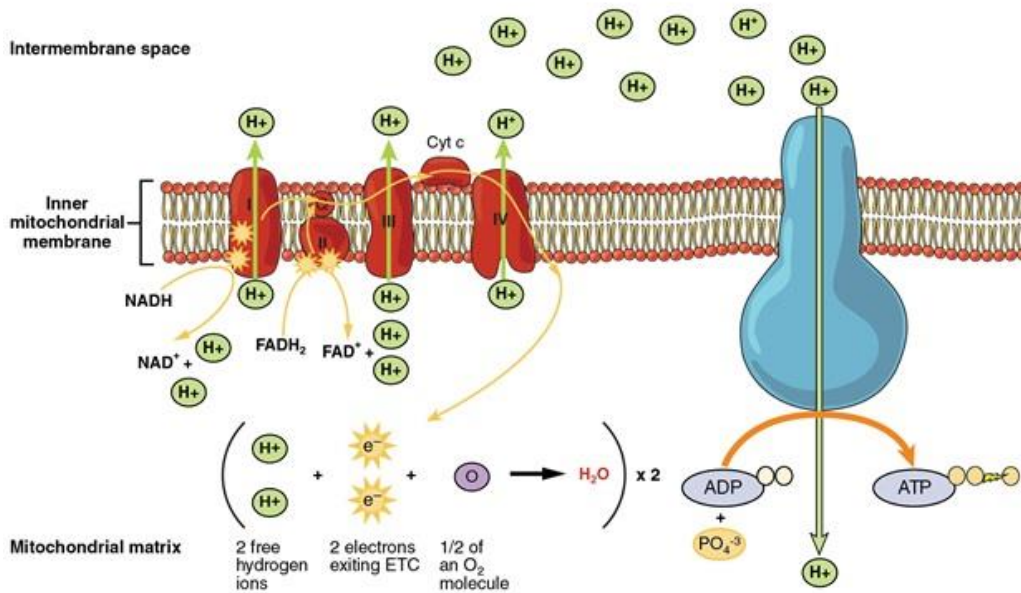
- Citric Acid Cycle (Krebs Cycle)

- Electron Transport Chain

- ATP Synthase

4. Briefly describe what happens to pyruvate as it enters the mitochondrion and moves through the citric acid cycle. Be sure to list both the reactants and the products of the citric acid cycle in your response.

5. Briefly describe how the electron transport chain and ATP synthase work to generate ATP. Be sure to list both the reactants and the products of this process in your response.



Use this figure to help answer questions 6 and 7.

6. Cyanide is a poison that prevents complex IV from transporting electrons. How would cyanide poisoning affect electron transport and ATP synthesis? Explain.

7. Dinitrophenol is a poison that forms a tunnel for protons to pass directly through the membrane with no resistance. How would dinitrophenol poisoning affect electron transport and ATP synthesis? Explain.