

MITOCHONDRIAL ELECTRON TRANSPORT CHAIN

<u>ENZYME COMPLEX</u>	<u>REACTIONS</u>	<u>E^o</u>
I NADH-ubiquinone reductase	$\text{NADH}/\text{H}^+ + \text{CoQ} \longrightarrow \text{NAD}^+ + \text{CoQH}_2$	0.42 V
II Succinate-ubiquinone reductase	$\text{FADH}_2 + \text{CoQ} \longrightarrow \text{FAD} + \text{CoQH}_2$	0.32 V
III Ubiquinol-cytochrome c oxidoreductase	$\text{CoQH}_2 + 2 \text{ cyt c}(\text{Fe}^{+3}) \longrightarrow 2 \text{ cyt c}(\text{Fe}^{+2}) + \text{CoQ} + 2 \text{ H}^+$	0.18 V
IV Cytochrome c oxidase	$2 \text{ cyt c}(\text{Fe}^{+2}) + 2 \text{ H}^+ + 1/2 \text{ O}_2 \longrightarrow 2 \text{ cyt c}(\text{Fe}^{+3}) + \text{H}_2\text{O}$	0.52 V

