

ETC

	Enzyme Complex I	" " II	" " III	" " IV
Coenzyme:	$FMN \xrightarrow{2H^+} FMNH_2$	FAD	x	x
	<ul style="list-style-type: none"> • Contains Iron & Sulphur • NAD^+ reduced to $NADH + H^+$ • Named NADH reductase • transfers the e^- to ubiquinone • Coupling site 	<ul style="list-style-type: none"> • Flavo-protein dehydrogenase → Succinate dehydrogenase → Acyl CoA • also transfers e^- to CoQ 	<ul style="list-style-type: none"> • A Cytochrome reductase Cytochrome bcl complex • transfers e^- from QH_2 to Cytochrome c ⇒ Contains Cytochrome b enzyme. • Coupling site 	<ul style="list-style-type: none"> • Cytochrome a, a₃ & 2 Copper • transfers the e^- from reduced Cytochrome c → molecular Oxygen. • Cytochrome oxidase • Terminal Component of ETC • produce H_2O • Coupling Site. • ATP Synthase
	<p><u>Inhibitors:</u> Barbiturates, rotenone, pieridin A</p>	<p>• Malonate inhibits Succinate dehydrogenase</p>	<p><u>Inhibitors:</u></p> <ul style="list-style-type: none"> • Antimycin A • DimerCaprol 	<p><u>Inhibitors:</u> H_2S / Cyanide / CO / Sodium azide • most potent / inhibits oxidative phosphorylation</p>
			<ul style="list-style-type: none"> • They are <u>Iron</u> Containing Heme group proteins Cooscillates (move) btw. Ferric & Ferrous • Integral memb. proteins. • transport H^+ from mitochondrial matrix → Inter mitochondrial space "more + outside" "lower pH than inside" 	

ATP/ADP Transporter inhibitors "atractyloside"