## **TCA Cycle**

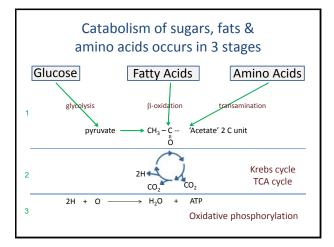
(Aerobic Metabolism)

**Barbara Moreland** 



## Alternative names for pathway:

- Krebs cycle
- Citric acid cycle
- Tricarboxylic acid cycle
- Common terminal pathway



## **Key Points**

• Definition: oxidation of acetyl CoA

to CO2 and water

• Location: mitochondrial matrix

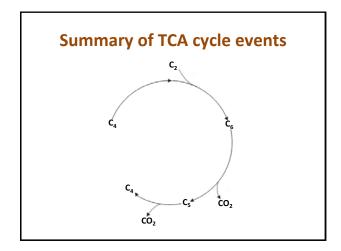
• Tissues: all tissues with mitochondria

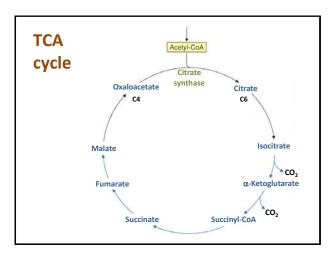
(not red blood cells or white

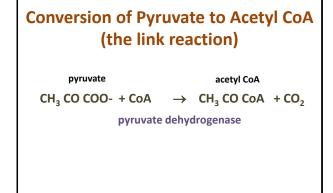
muscle fibres)

• Functions: energy trapping,

biosynthesis of intermediates







## Conversion of Pyruvate to Acetyl CoA (the link reaction) CH<sub>3</sub> CO COO- + CoA → CH<sub>3</sub> CO CoA + CO<sub>2</sub> pyruvate dehydrogenase + NAD+ + NADH + H+ Other cofactors: thiamine pyrophosphate, lipoic acid FAD, Coenzyme A