

CARBOHYDRATE METABOLISM

I. CYTOPLASMIC ANAEROBIC PHOSPHORYLATION

GLYCOLYSIS: (one C₆ to two C₃)



II. MITOCHONDRIAL AEROBIC PHOSPHORYLATION (CELLULAR RESPIRATION)

A. DECARBOXYLATION - hydrogen atoms are removed from pyruvic acid by coenzymes

B. TCA CYCLE (Krebs, Citric Acid) - transfers hydrogen atoms to coenzymes (C₆ to C₄)



3. Substrate level phosphorylation



C. Oxidative Phosphorylation -

oxidation/reduction transfer of hydrogen ions

1. Coenzymes - NAD, FAD, FMN, CoQ

2. Electron transport system - cytochromes

3. 32 ATP via chemiosmosis - chemical action through a membrane