

**Fig 1. Main pathways of glucose metabolism.**

Starch → glucose (extracellular) → glucose (intracellular)



glycolysis pathway:  
glucose → 2 pyruvate  
+ 2 ATP + 2 NADH

(aerobic) ↓

OR

↓ (anaerobic)

pyruvate → acetate + CO<sub>2</sub>  
+ NADH  
(complex reaction)



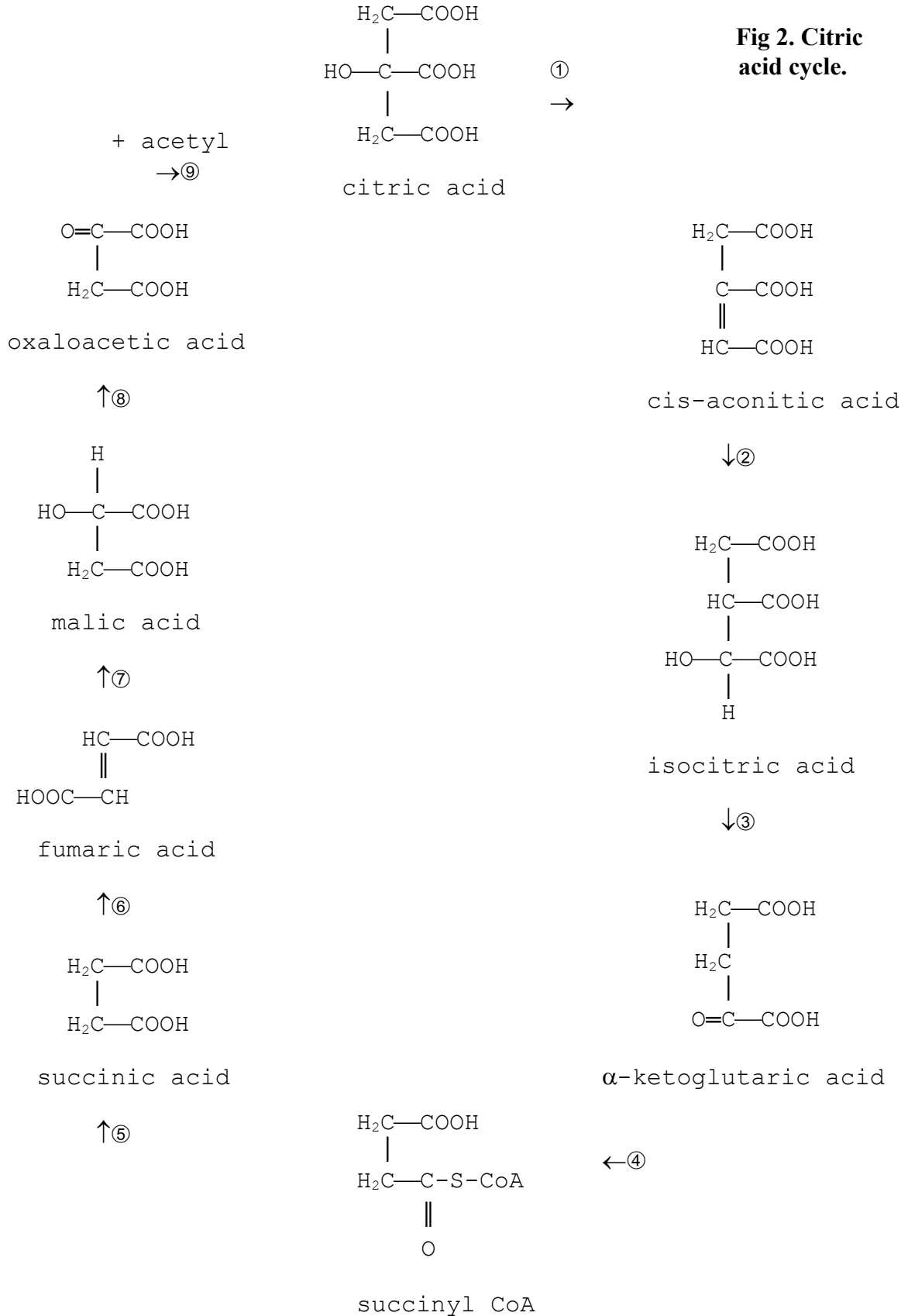
Citric acid cycle pathway:  
acetate → 2 CO<sub>2</sub>  
Collect the H<sub>2</sub> in form of  
NADH and FADH<sub>2</sub>.



Oxidative phosphorylation  
pathway:  
H<sub>2</sub> (from NADH & FADH<sub>2</sub>)  
+ O<sub>2</sub> → H<sub>2</sub>O;  
coupled to ATP production.

fermentation pathway:  
pyruvate → lactate  
(other pathways possible)  
Main purpose is to  
regenerate NAD<sup>+</sup>.

**Fig 2. Citric acid cycle.**



These are the two large figures for the Metabolism handout.

This file is posted in both DOC and PDF formats.

The DOC file may not print well for others, because of all the format detail, which depends on your printer driver.

If you have trouble with these, please let me know; The feedback helps me deal with problems and your concerns. Also, you can also contact me for paper copies.

metabfig  
5/18/04