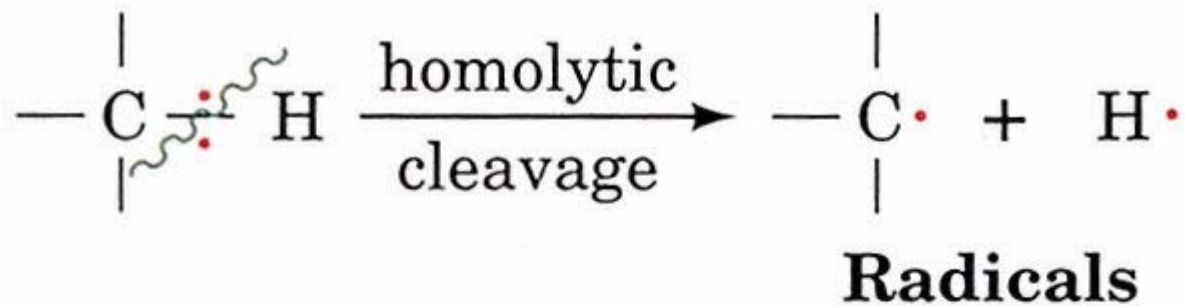


Glycolysis  
Fate of Pyruvate  
Gluconeogenesis



## Types of Bond Cleavage

### Homolytic:



### Heterolytic:

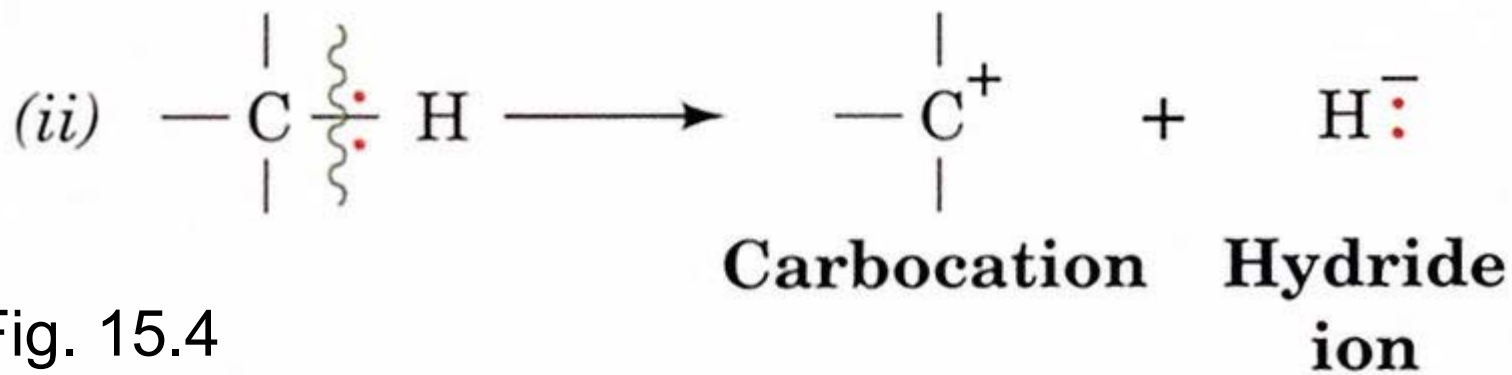
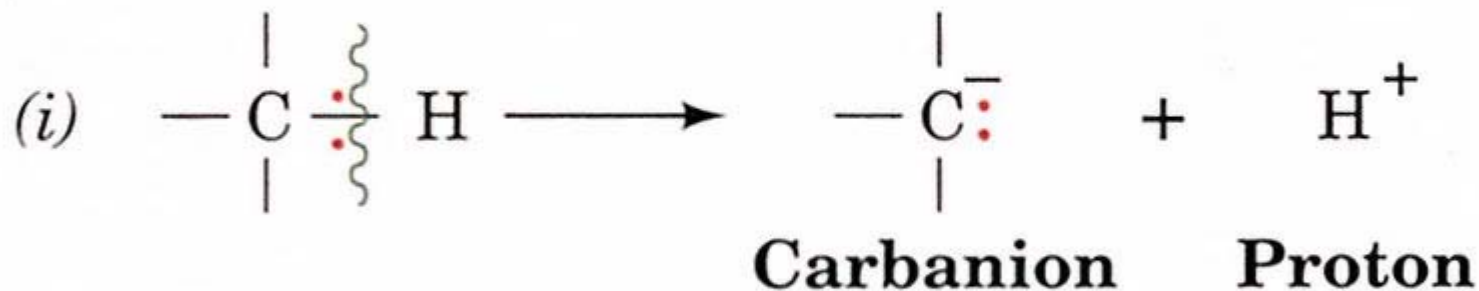


Fig. 15.4

# Overview of Carbohydrate Metabolism

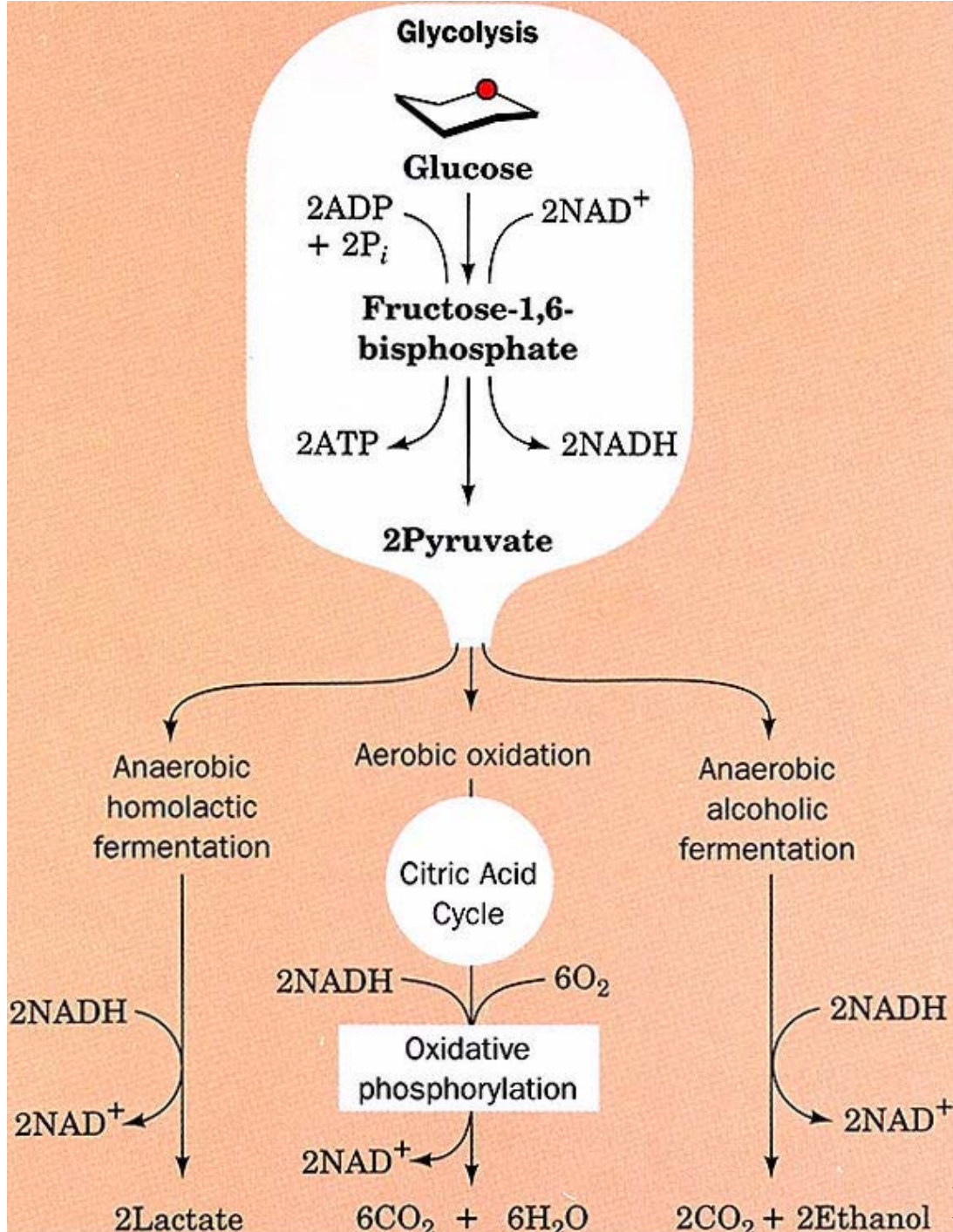


Fig. 16.1

# Glycolysis

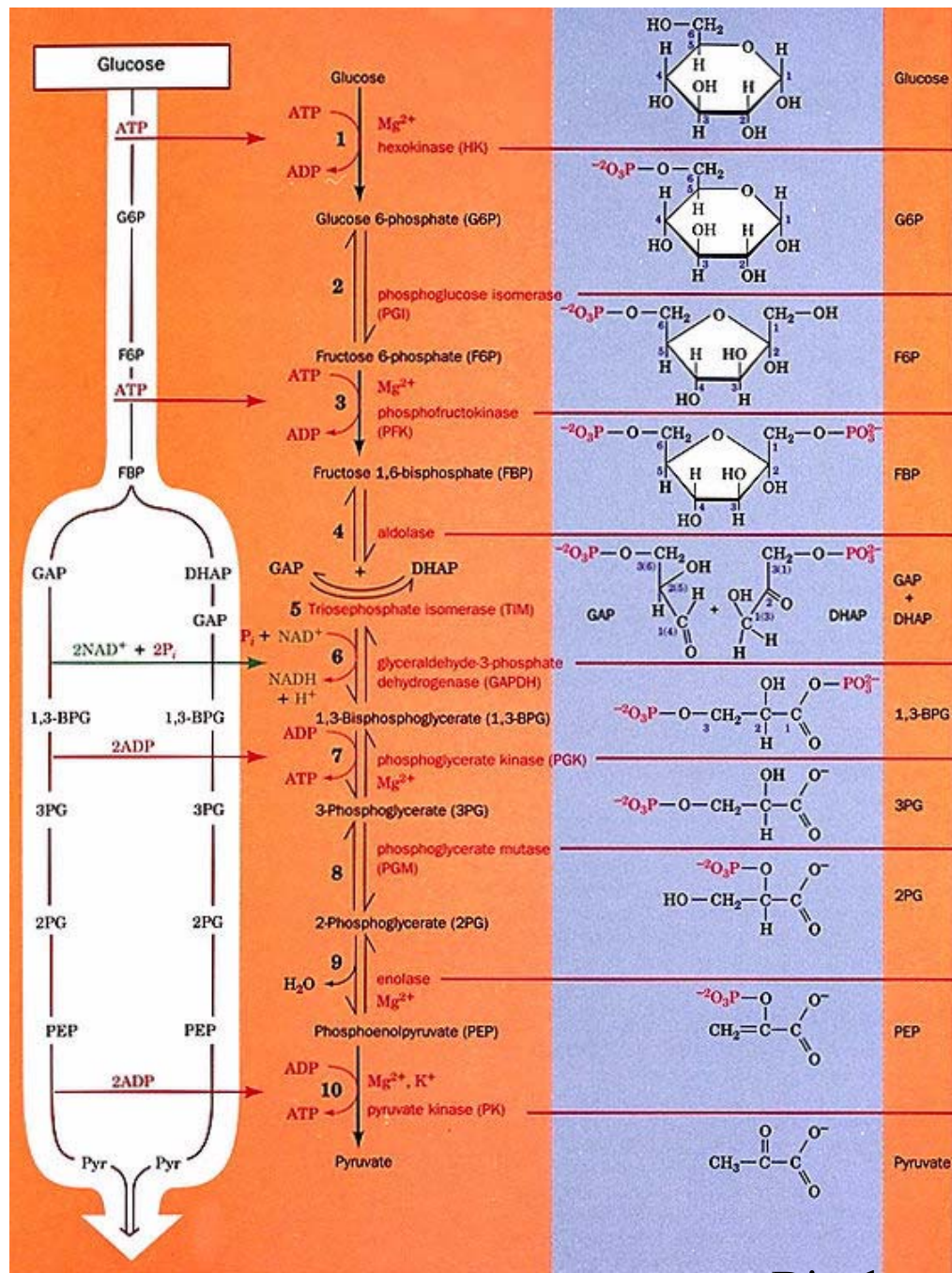


Fig16.3

# Mechanism of Phosphoglucose Isomerase

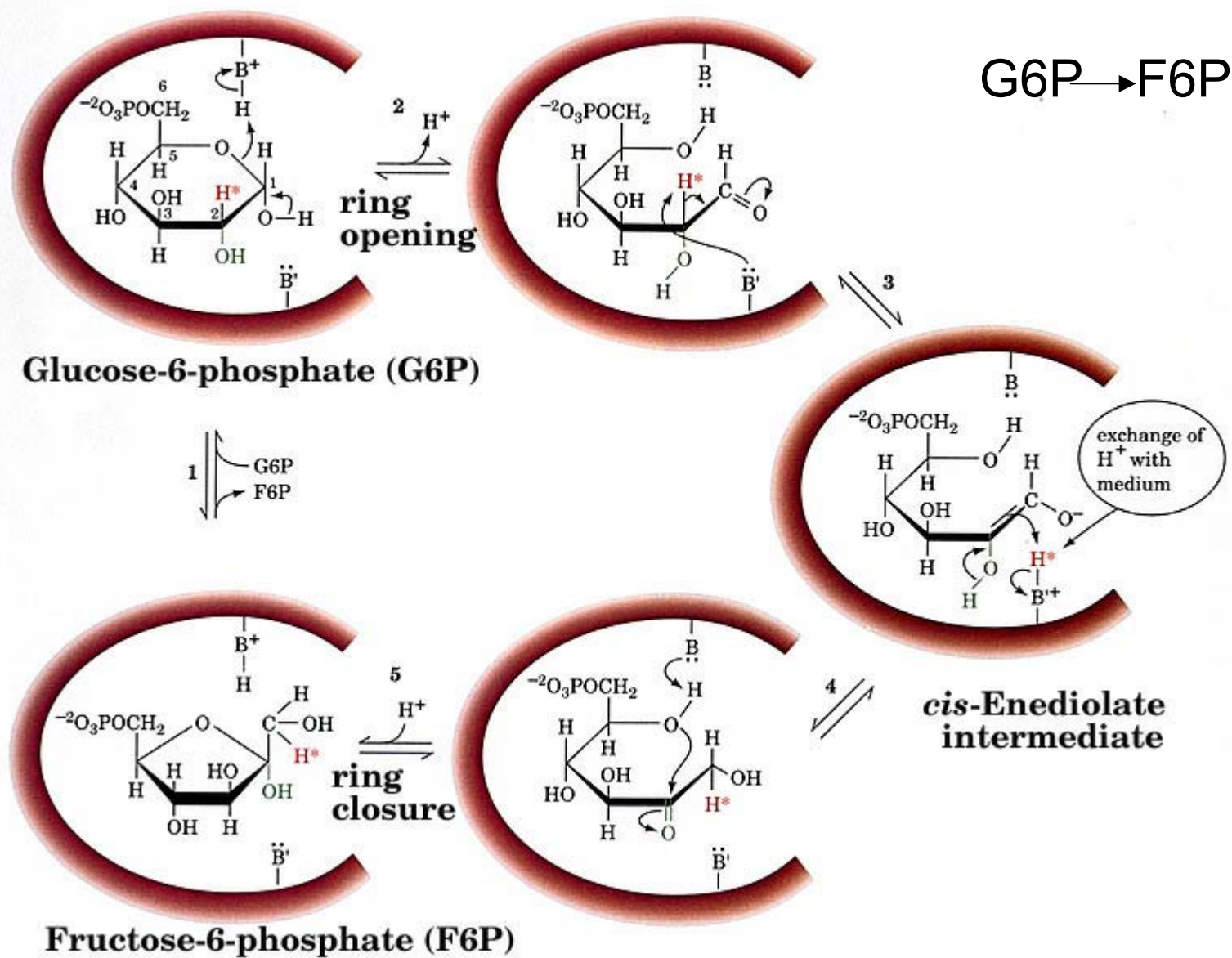
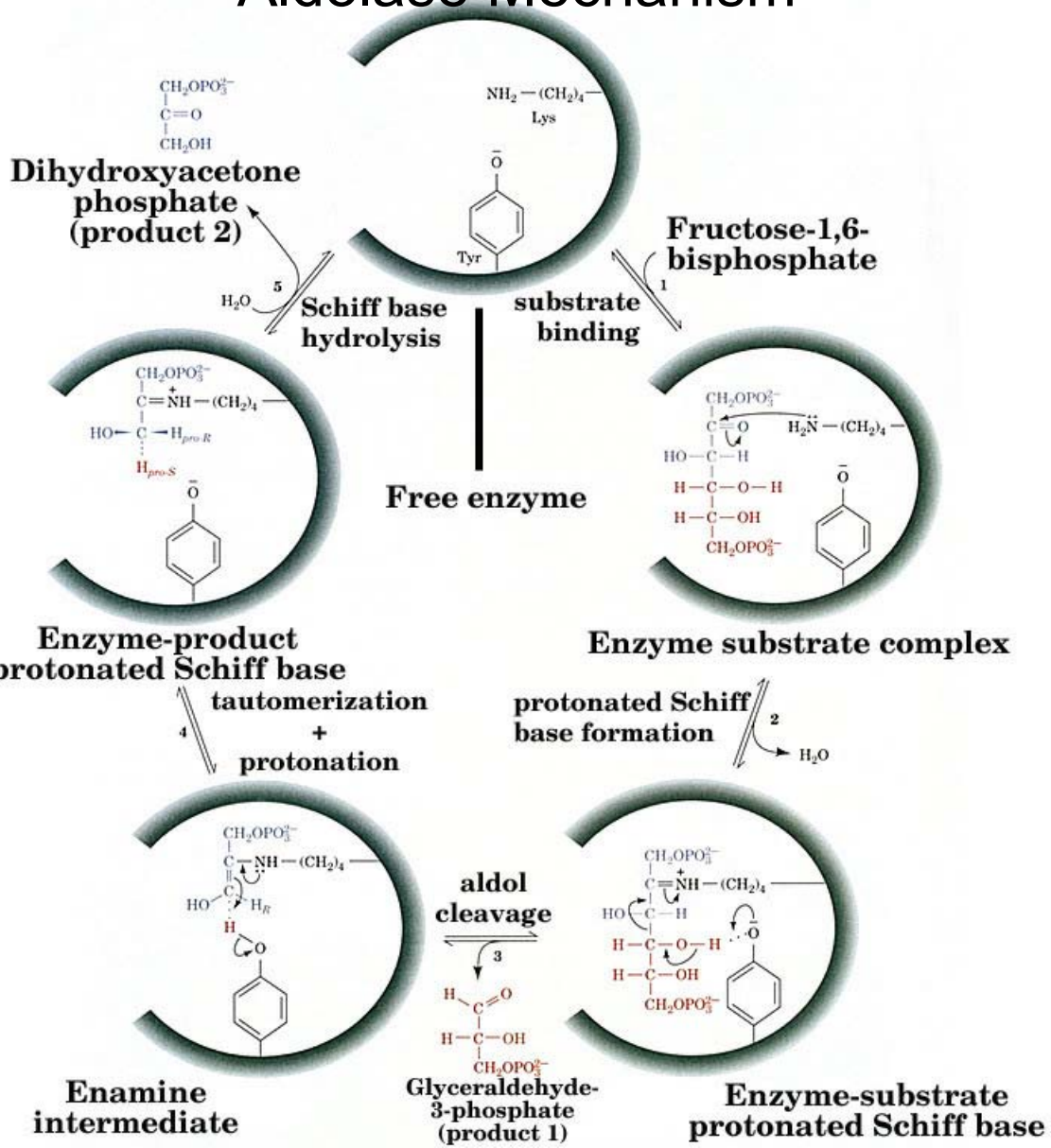


Fig 16.6

# Aldolase Mechanism



F1,6BP  
 ↓  
 DHAP  
 +  
 GAP

Fig 16.9

# Mechanism of Phosphoglycerate Mutase

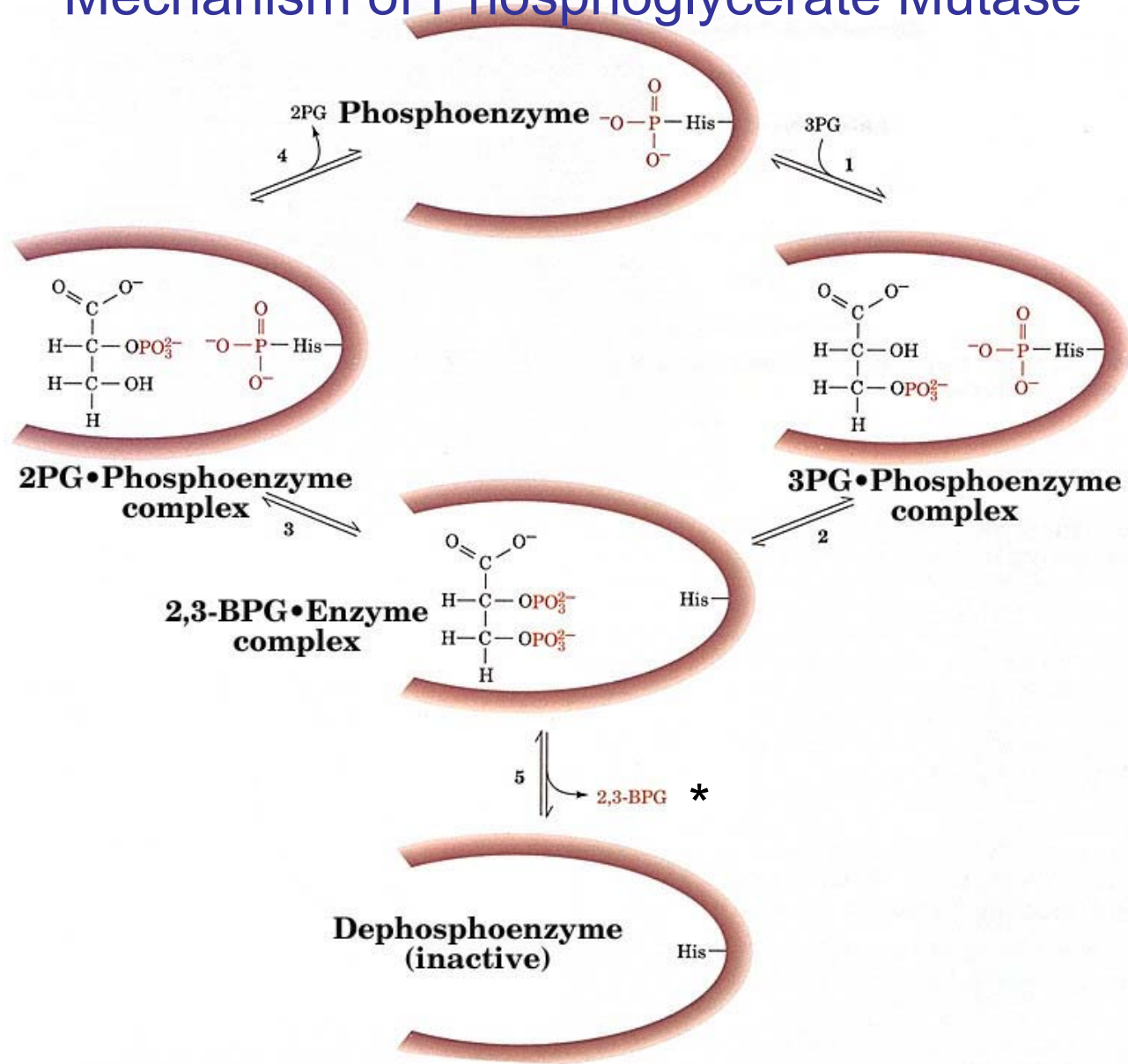
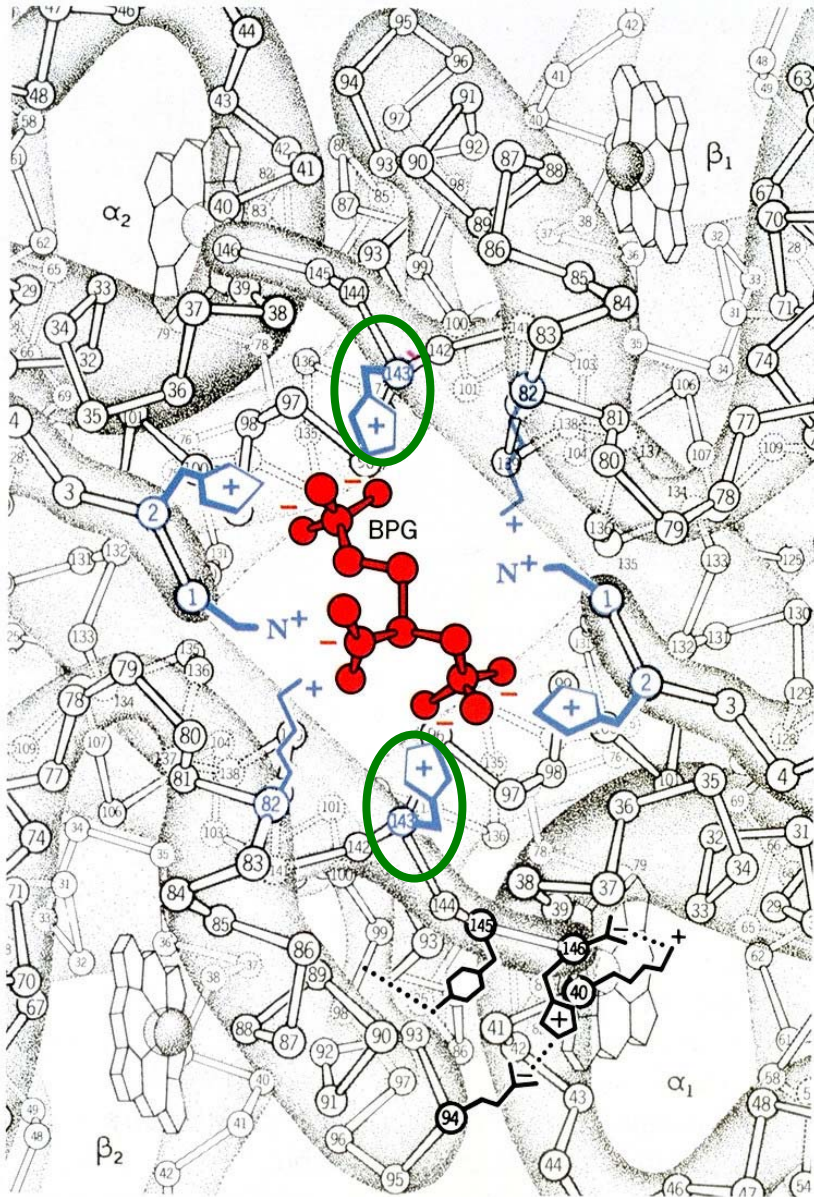


Fig 16.8



# BPG Modulates O<sub>2</sub> Binding to Hb



BPG decreases Hb affinity for O<sub>2</sub>

BPG bound in T form (stabilizes)

BPG released in T to R conversion

Without BPG, O<sub>2</sub> not released

\*BPG increases in altitude adaptation

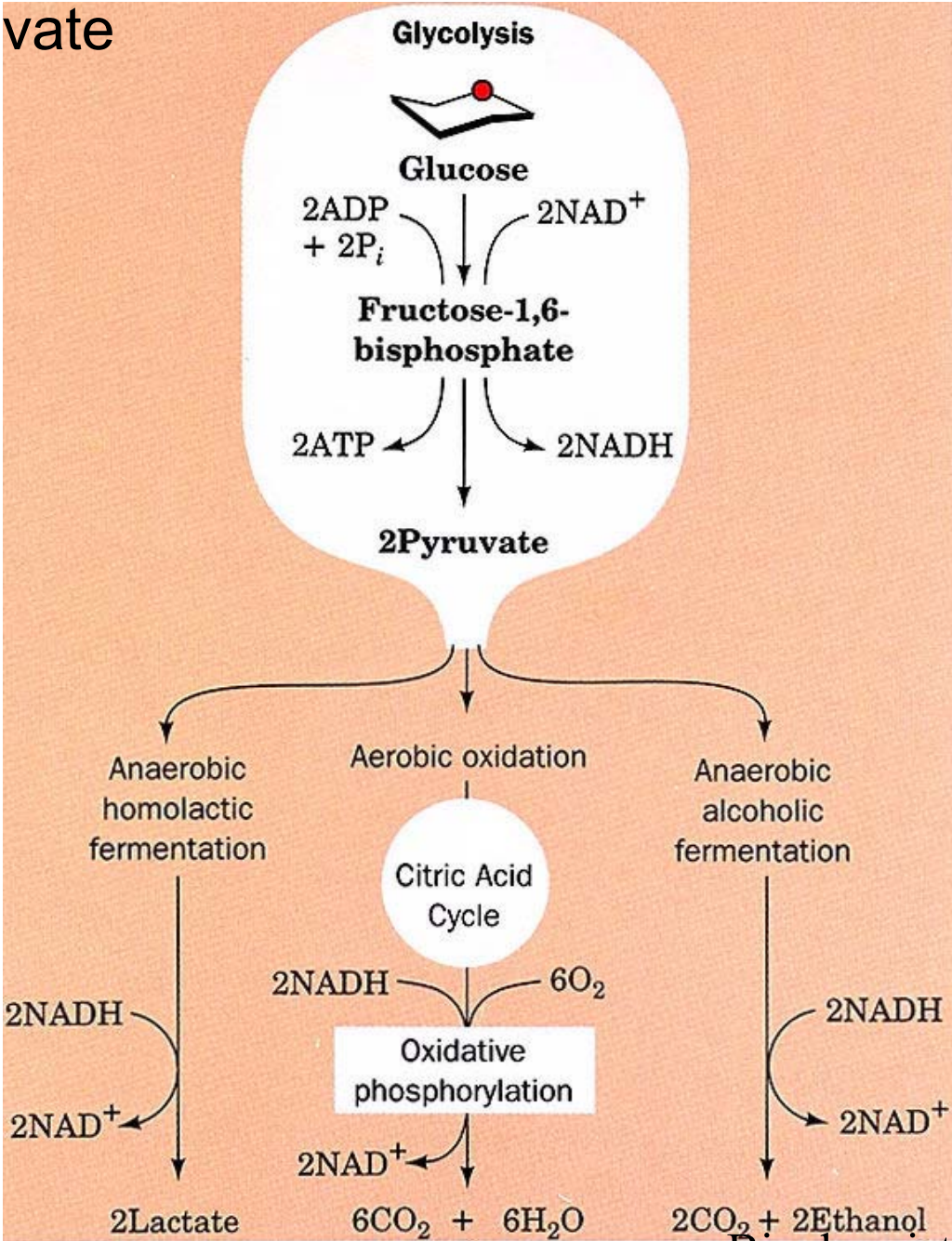
\*Fetal Hb has reduced affinity for BPG

His changed to Ser

Higher affinity for O<sub>2</sub>

Fig 9.22

# Fates of Pyruvate



Pyruvate  
↓  
Lactate

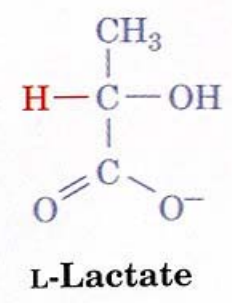
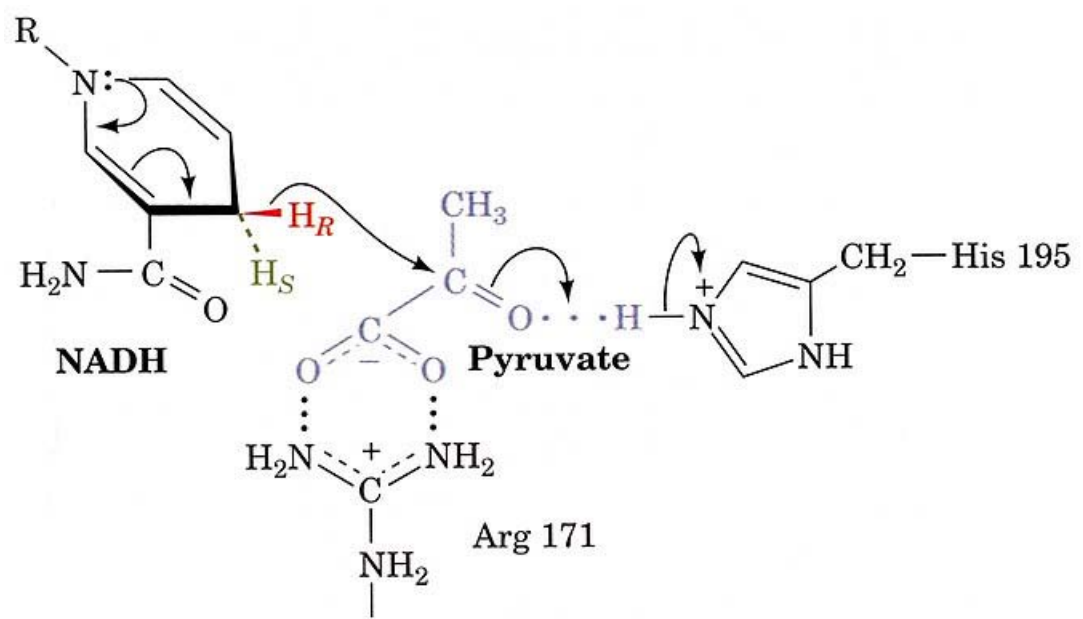


Fig. 16.25

# Cori Cycle

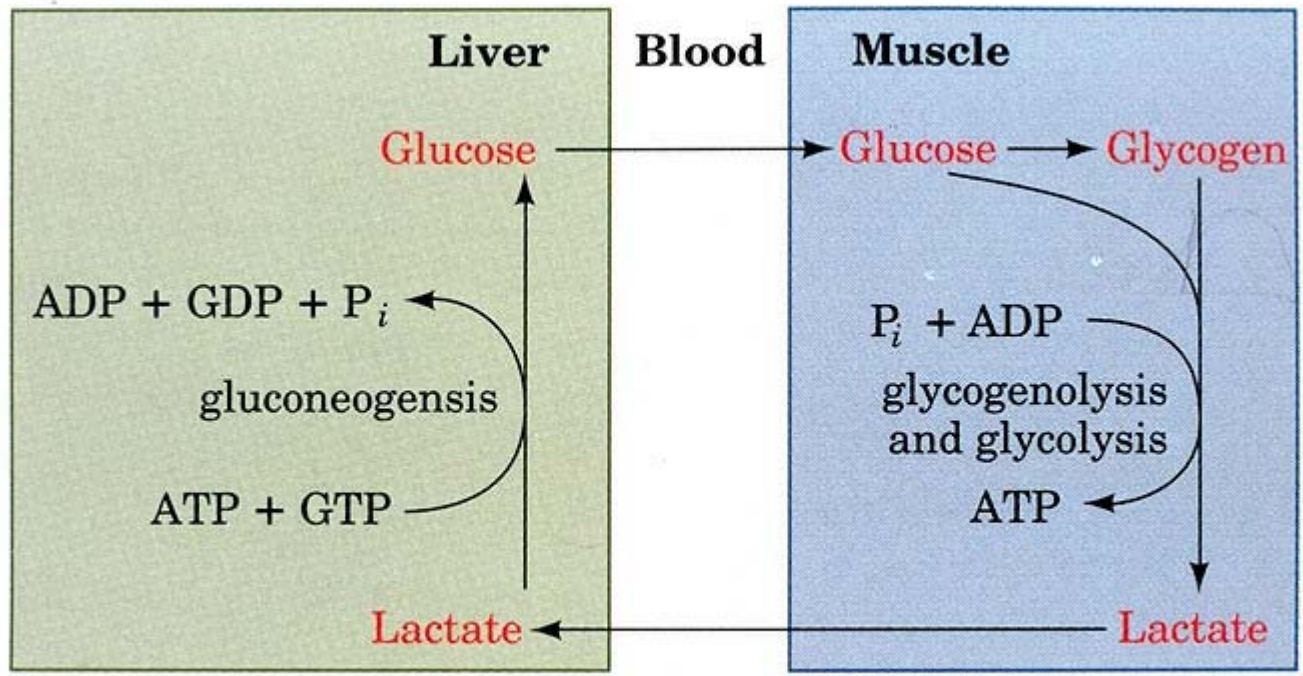


Fig 21.9

# Gluconeogenesis (GNG)

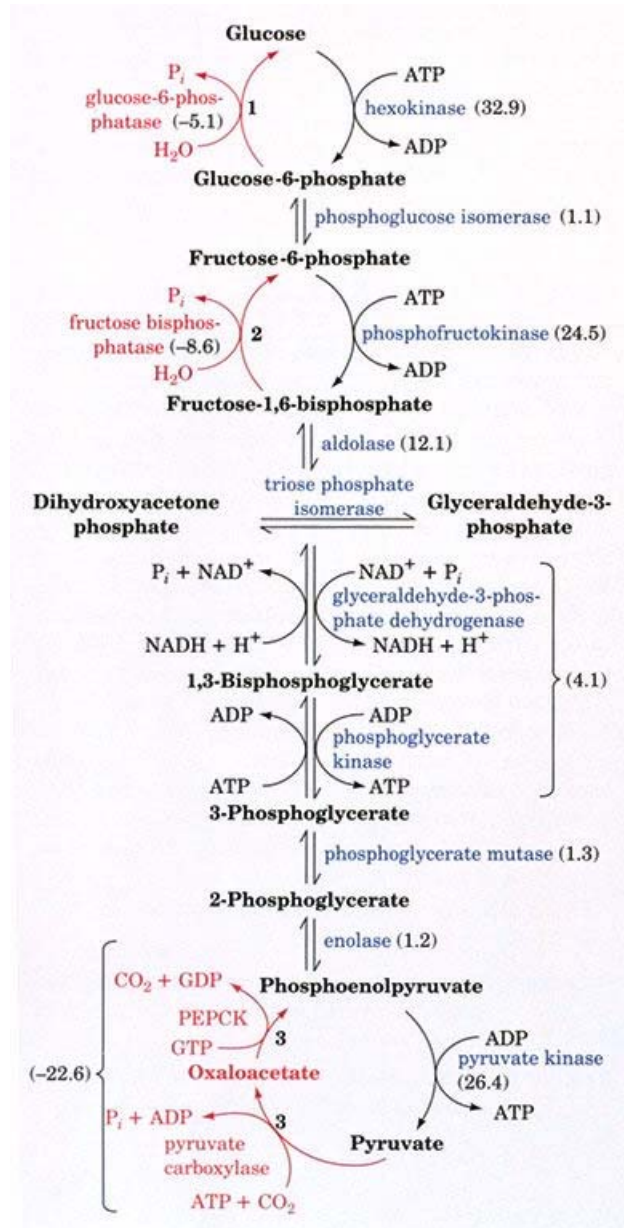


Fig 21.7