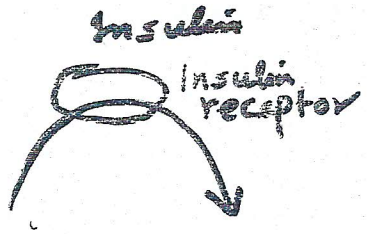

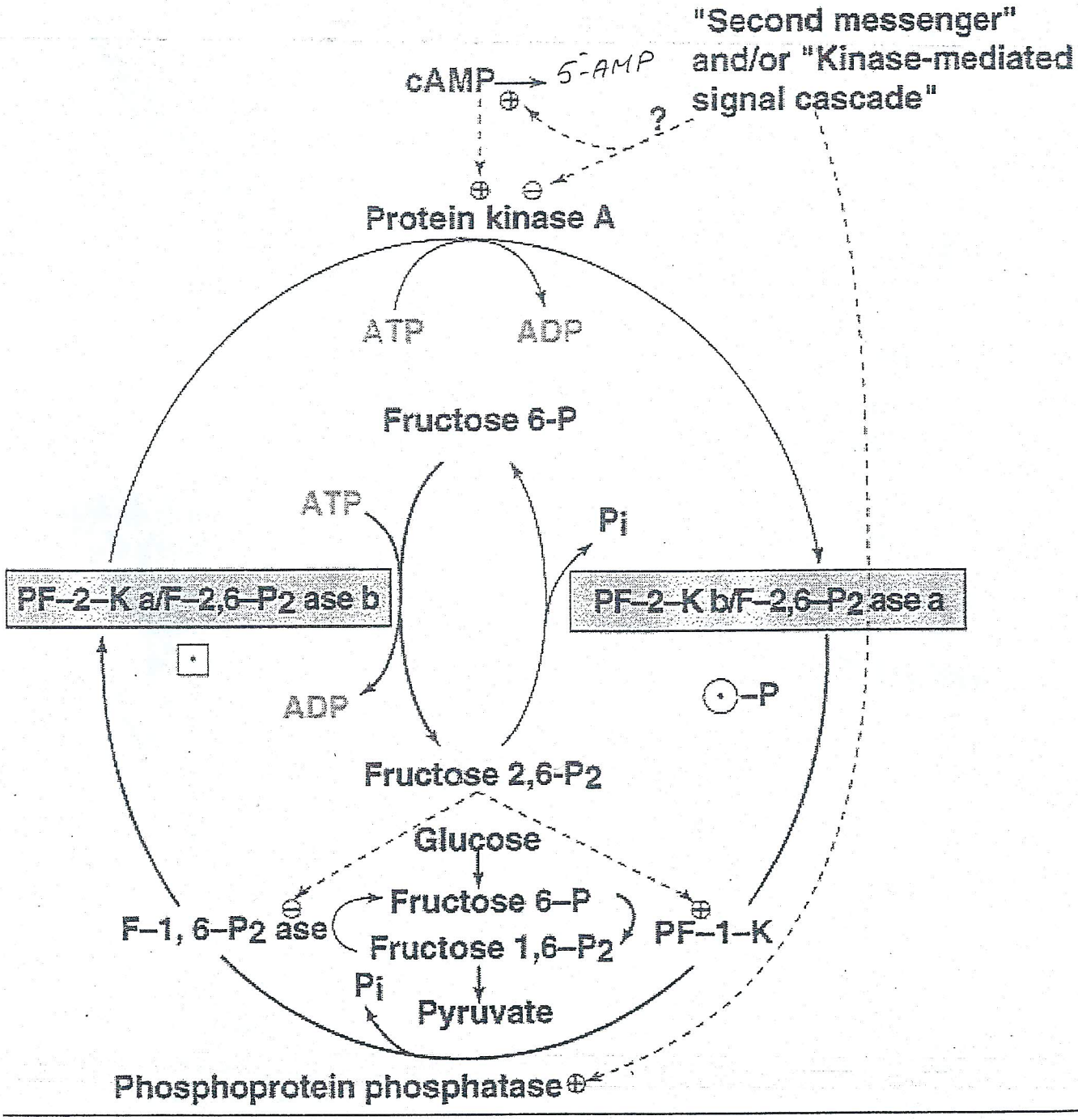

Figure: 07_27b
Mechanism responsible for accelerated rates of hepatic glycolysis when the concentration of glucagon and epinephrine are low and that of insulin is high in the blood.

① ลด

Glycolysis Can be Inhibited

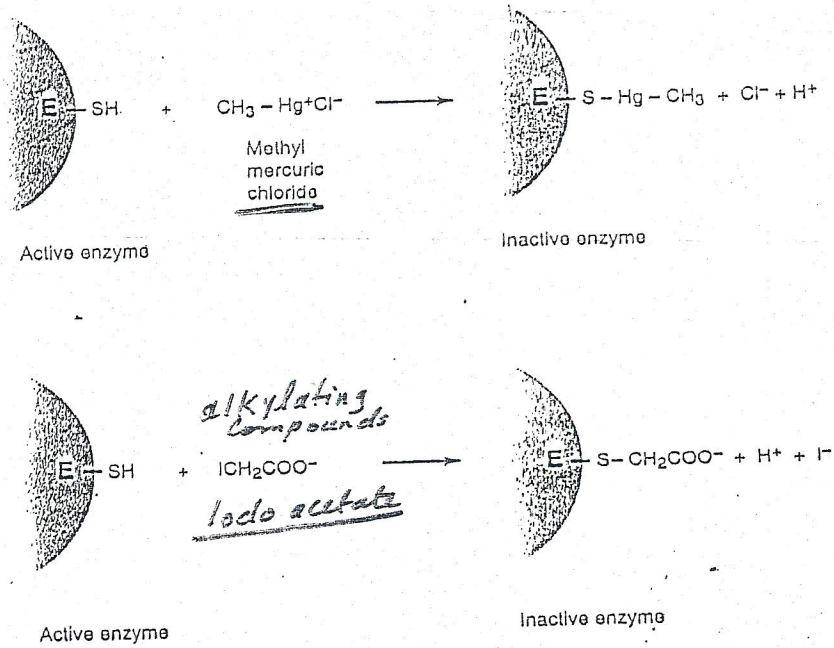

FIGURE 7.11
Mechanism responsible for inactivation of glyceraldehyde-3-phosphate dehydrogenase by sulfhydryl reagents.

1. 2-deoxy Glucose HK↓
2. Sulfhydryl Reagents GADH↓
3. Fluoride Enolase↓

4. Arsenate Inhibition $HAsO_4^{2-}$

Arsenolysis also interfer with ATP-formation by Ox. phos.

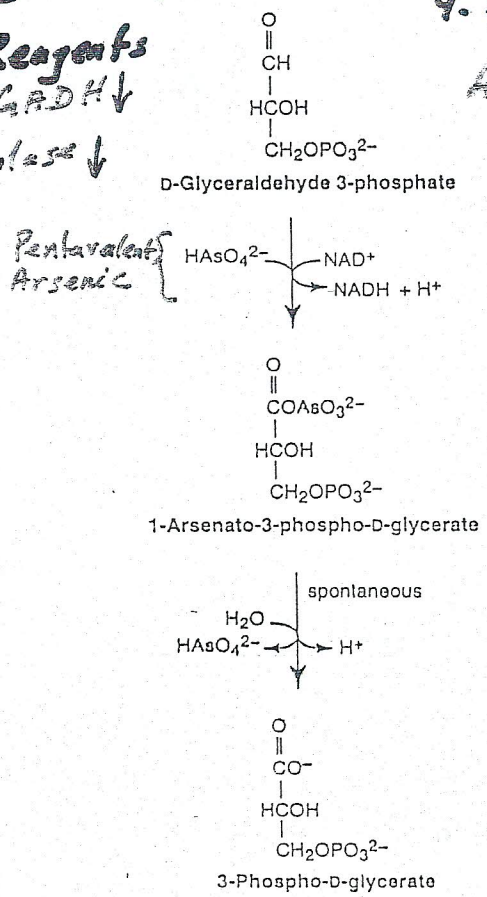

FIGURE 7.12
Arsenate uncouples oxidation from phosphorylation at the step catalyzed by glyceraldehyde-3-phosphate dehydrogenase.

Arsenite (trivalent) AsO_2^-

bind both -SH of the cofactor lipoic acid and inhibiting e.g PD, KG-D -- etc. more TOXIC

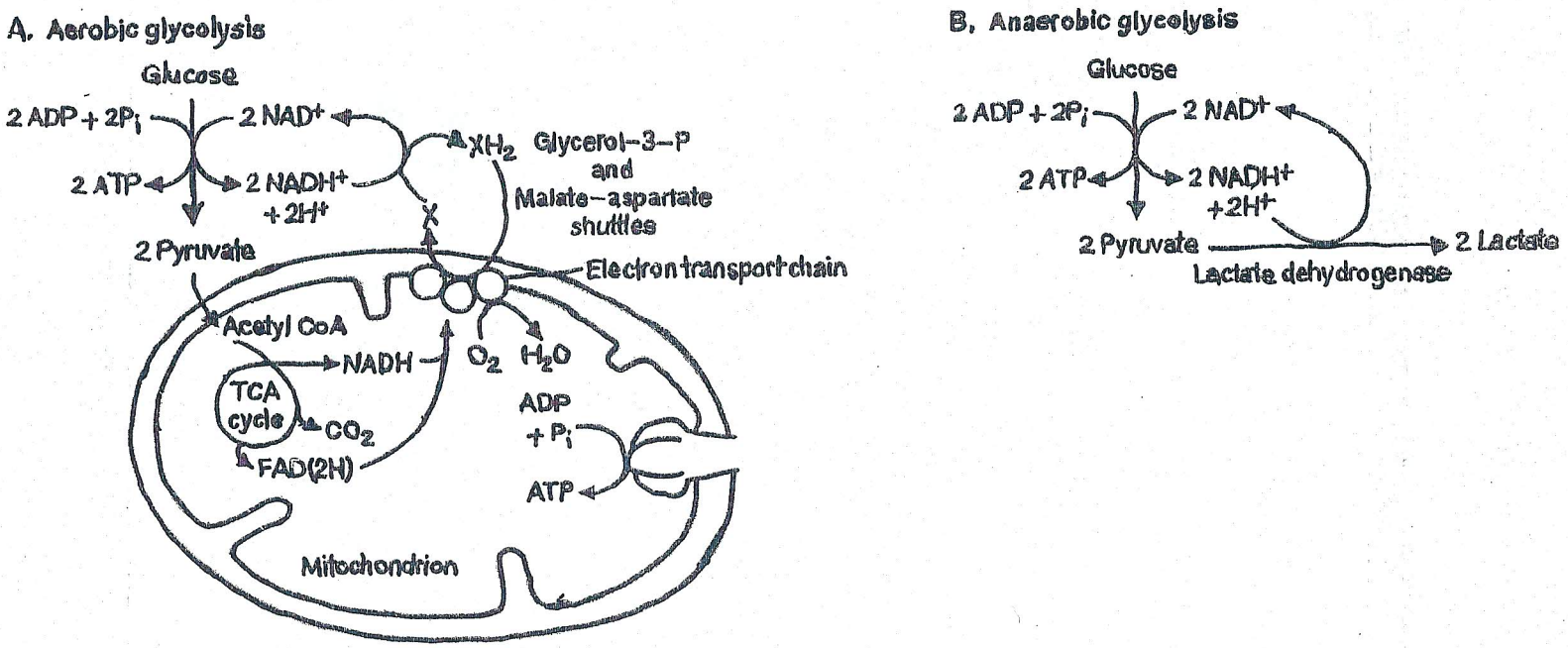

Fig. 22.6. Alternate fates of pyruvate. A. The pyruvate produced by glycolysis enters mitochondria and is oxidized to CO_2 and H_2O. The reducing equivalents in NADH enter mitochondria via a shuttle system. B. Pyruvate is reduced to lactate in the cytosol, thereby using the reducing equivalents in NADH.

Shuttle Pathways for the Transport of Electrons across the Inner mitochondrial membrane :-

Glycero-phosphate shuttle

Malate-Aspartate shuttle