G6PD Mechanism

Glucose-6-phosphate dehydrogenase deficiency is an X-linked recessive disorder characterized by a deficiency of the enzyme glucose-6-phosphate dehydrogenase (G6PD). This enzyme is involved in the pentose phosphate pathway and supplies reducing substances by converting NADP+ to NADPH. This NADPH is used by glutathione reductase to maintain levels of glutathione in cells, which helps protect red blood cells against oxidative damage caused by free radicals and peroxides. In addition, NADPH is actively engaged in the biosynthesis of fatty acids in the human body.

PLAY PICMONIC

Turns NADP+ to NADPH

Line of (NAD) Nicotine Characters with P to PHs

G6PD is an enzyme involved in the pentose phosphate pathway and supplies reducing substances by converting NADP+ to NADPH.

NADPH Used by Glutathione Reductase

(NADPH) Nicotine-guy consumed by Gluttunous Red-duck

NADPH is used by glutathione reductase to maintain levels of glutathione in cells, which is an antioxidant that helps protect red blood cells against oxidative damage caused by free radicals and peroxides.

Detoxifies Free Radicals and Peroxides

Free Radicals and Peroxide-bottle

NADPH is used by glutathione reductase to maintain levels of glutathione in cells, which is an antioxidant that helps protect red blood cells against oxidative damage caused by free radicals and peroxides.

X-linked Recessive

X-suit with Recessive-chocolate

G6PD deficiency shown by the broken dehydrator is inherited in an X-linked recessive fashion. Therefore, patients are predominately male.