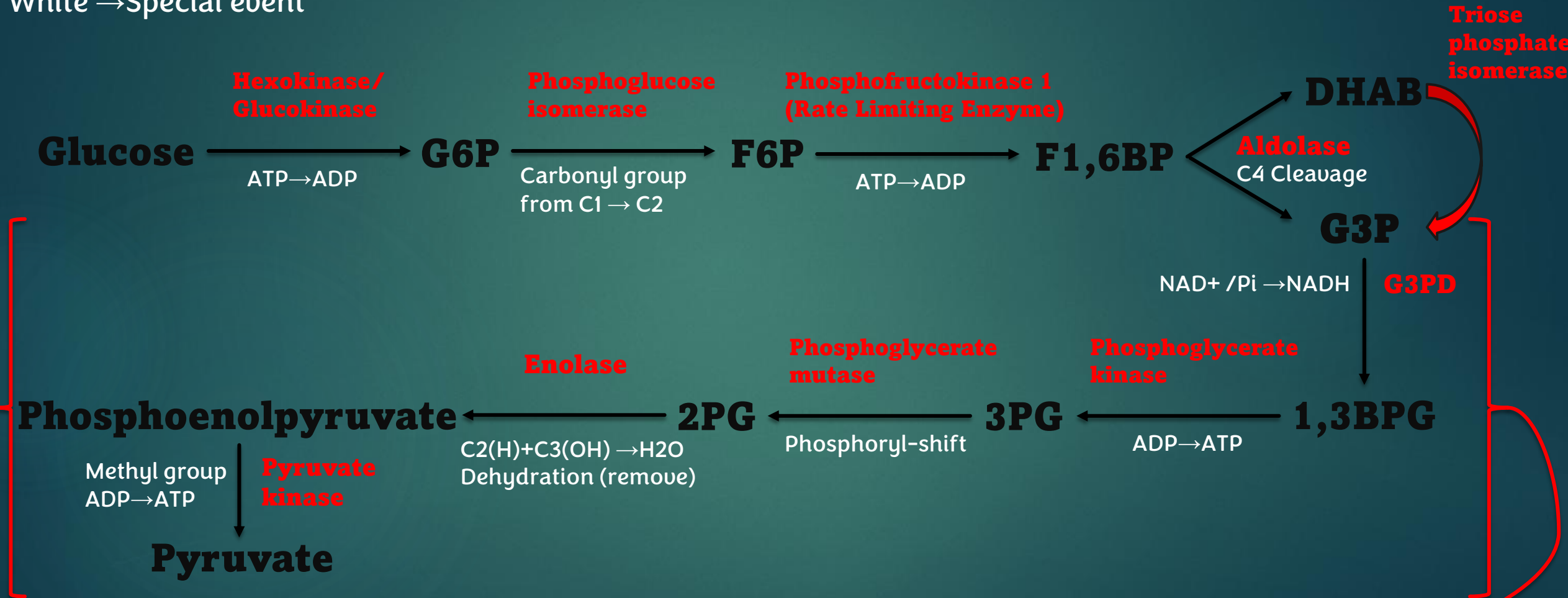


Glycolysis Pathway Summary

Red → Enzyme

White → Special event



From this step onward, all products are **doubled(X2)**, since one G3P is formed directly from F1,6BP and Another one is generated by the isomerization of DHAP to G3P.

Interpretation Page

Full Names of Abbreviations:

- **G6P** – Glucose-6-phosphate
- **F6P** – Fructose-6-phosphate
- **F1,6BP** – Fructose-1,6-bisphosphate
- **DHAP** – Dihydroxyacetone phosphate
- **G3P** – Glyceraldehyde-3-phosphate
- **G3PD** – G3P Dehydrogenase
- **1,3BPG** – 1,3-Bisphosphoglycerate
- **3PG** – 3-Phosphoglycerate
- **2PG** – 2-Phosphoglycerate
- **PEP** – Phosphoenolpyruvate

Irreversible Reactions:

Three irreversible steps, all catalyzed by kinase enzymes:

1. Hexokinase / Glucokinase – Glucose → G6P
2. Phosphofructokinase-1 (PFK-1) – F6P → F1,6BP (*rate-limiting step*)
3. Pyruvate kinase – PEP → Pyruvate

Energy Summary:

- ATP used: 2 (during Preparing Phase)
- ATP produced: 4 (during ATP-generating Phase)
- Net ATP gain: +2 ATP
- NADH produced: 2 NADH (from G3P oxidation)
- Final product: 2 Pyruvate molecules

Overall Reaction:

