

G6PD deficiency

↓
genetic abnormality

[DEPTH OF BIOLOGY]

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results in
inadequate amount of glucose-6-phosphate
dehydrogenase
(G6PD) in blood.

G6PD → important enzyme that regulates
various biochemical reactions
in the body.

[DEPTH OF BIOLOGY]

↓
responsible for

↓
keeping RBC healthy

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so they can function properly and
live a normal life span.

* without enough of it (G6PD) RBC
break down prematurely.

↓
called as hemolysis

[DEPTH OF BIOLOGY]

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can eventually lead to
hemolytic anemia

Hemolytic anemia

- develops when RBC's are destroyed faster than
the body can replace them.

[DEPTH OF BIOLOGY]

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results in
reduced oxygen flow to organs
and tissues.

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This can cause fatigue, yellowing of
skin and eyes and shortness of breath.

* In people with G6PD deficiency,
hemolytic anemia can occur

[DEPTH OF BIOLOGY]

- after eating fava beans.
- after eating certain legumes.
- can get triggered by infections and by certain drugs.

* Drugs that triggers hemolytic anemia in people with G6PD deficiency.

- **Antimalarials** → drugs used to treat and prevent malaria.
- **sulfonamides** → used to treat infections
- **Aspirin** → used to relieve fever, pain and swelling
- **NSAIDs** → some non-steroidal anti-inflammatory medications

[DEPTH OF BIOLOGY]

* Symptoms of G6PD deficiency

[DEPTH OF BIOLOGY]

- Rapid heart rate
- Shortness of breath
- dark or yellow-orange urine
- fever
- fatigue
- dizziness
- paleness
- jaundice (yellowing of the skin and whites of the eye (sclera)).