G6PD Deficiency is a hereditary abnormality in the activity of a red blood cell enzyme. This enzyme, glucose-6-phosphate dehydrogenase (G6PD), is essential for assuring a normal life span for red blood cells, and for oxidizing processes. This enzyme deficiency may provoke the sudden destruction of red blood cells and lead to hemolytic anemia with jaundice following the intake of fava beans, oxidant drugs and some bacterial and viral infections.
How to verify the G6PD deficient degree?

The WHO classifies G6PD activity into five classes. The first three are deficiency states

**Class I:** severely deficient, associated with chronic non-spherocitic hemolytic anemia.

**Class II:** severely deficient (1%-10% residual activity), associated with acute intermittent hemolytic anemia (G6PD Mediterranean)

**Class III:** moderately deficient (10%-60% residual activity), associated with intermittent hemolysis with infection or drugs.

**Class IV:** normal activity (60%-150%).

**Class V:** increased activity (>150%).
What is the worldwide G6PD deficiency distribution?

G6PD deficiency is the most common enzyme deficiency in the world, with about 400 million people living with it. G6PD deficiency is most prevalent in Africa (affecting up to 20% of the population), but is common also around the Mediterranean (4% ~30%) and Southeast Asia. (The different colored symbols indicate individual genetic variants of G6PD).

What are the chances of passing G6PD deficiency on to kids?

If the father is G6PD deficient and the mother is not affected:
- Having a girl who is G6PD Deficient (0%)
- Having a boy who is G6PD Deficient (0%)
- Having a girl who is a carrier (no clinical symptoms) of G6PD Deficiency (100%)

If the father is G6PD deficient and the mother is a carrier:
- Having a girl who is G6PD Deficient (50%)
- Having a girl who is a carrier (50%)
- Having a boy who is G6PD Deficient (50%)

If the father is unaffected and the mother is a carrier:
- Having a girl who is G6PD Deficient (0%)
- Having a girl who is a carrier (50%)
- Having a boy who is G6PD Deficient (50%)
G6PD Deficiency is an inherited condition. Since it is inherited, there is no cure. So some kinds of people need do the screen of G6PD deficiency, and if the G6PD degree is deficient, people need avoid eating some certain oxidant drugs and broad beans.

Who are recommended to test G6PD?

- Premarital couples
- Pregnant women
- Infants
- Patients with G6PD family history
- Patients before taking oxidizing substances
- Other G6PD deficiency suspected patients