You have one of the two variants we tested linked to G4PD deficiency:

- You have one of the two variants we tested linked to G4PD deficiency.

We detected one copy of the G4PD variant in the G4PD gene.

There is a slight chance that having the G4PD variant will lead to the development of symptoms of G4PD deficiency.

You may still be at risk for G4PD deficiency, even if you do not have a variant.

For people with G4PD deficiency, symptoms can be triggered by certain factors.

About G4PD Deficiency

G4PD deficiency is a rare genetic condition that affects the way cells produce energy from food.

Consider sharing this result with a healthcare professional.

If you have any questions about your results, you can ask your doctor or genetic counselor for more information.
G6PD Deficiency

G6PD deficiency is a genetic disorder caused by a defect in the G6PD gene, which is responsible for the production of an enzyme called glucose-6-phosphate dehydrogenase (G6PD). This enzyme is involved in the production of ATP, a molecule that provides energy to cells. In individuals with G6PD deficiency, the lack of enough G6PD can lead to a range of symptoms, including anemia, jaundice, and neurological problems.

You have one of the two genetic variants we tested. Your result for the other tested variant could not be determined.

### Health Risk Estimates

- **Nutrition**:
  - **Deficiency**: Nutritional deficiency may be more common in people with G6PD deficiency due to the reduced energy production in cells. Nutritional deficiencies can include anemia, weakness, and fatigue. Proper nutrition is crucial for maintaining overall health.

### Other Factors

- **G6PD Deficiency**: Some factors that can affect the level of G6PD in the body include:
  - **Age and sex**: G6PD levels can vary by age and sex, with some studies showing higher levels in women than in men.
  - **Environmental factors**: Exposure to certain medications, such as certain antibiotics and antimalarials, can lead to decreased G6PD levels, increasing the risk of hemolytic anemia.

### Test Details

- **Indications for Use**: G6PD deficiency is typically tested for when there is a history of hemolytic anemia,jaundice, or neurological problems. The test can also be used to screen for the disorder in populations with a high prevalence of the condition.

### Warning and Limitations

- **Antibiotics**: Certain antibiotics can cause a decrease in G6PD levels, increasing the risk of hemolytic anemia. It is important to inform healthcare providers about any medications you are taking, as they can interfere with G6PD levels.

### References


### Change Log

- **Jan 1, 2020**: Updated information on G6PD deficiency and its implications on health.
- **Jun 4, 2018**: Initial release of the G6PD deficiency report.
G6PD Deficiency

G6PD deficiency is a common genetic condition caused by defects in an enzyme called glucose-6-phosphate dehydrogenase, or G6PD. The G6PD enzyme helps protect red blood cells from damage. In people with G6PD deficiency, red blood cells are destroyed upon exposure to certain environmental triggers, which can lead to episodes of anemia. This test includes two common variants linked to G6PD deficiency.

Overview Scientific Details Frequently Asked Questions

G6PD Deficiency

What does this test do?

What does this test not do?

The report says the variants included in this test are most common and best studied in certain ethnicities. What does this mean?

The report says my genetic result is based on the sex I indicated in my account settings. What does that mean?

Where can I learn more about G6PD deficiency, support groups, and other resources?

My report says one variant was detected but my result for one variant could not be determined. What does this mean?

This means you have one of the two genetic variants we tested. But we could not determine your result for the other tested variant. This can be caused by random test error or other factors that interfere with the test. It can also occur for individuals whose genetic results were analyzed on a previous version of our genotyping platform.

Most females with just one copy of a variant are not expected to develop symptoms of G6PD deficiency. However, certain factors can affect the chances of developing symptoms in females with your genetic result, including the percentage of G6PD-deficient red blood cells in the body, which varies from female to female and can change over time. In addition, it is possible to have the variant that could not be determined or another genetic variant not included in this test.

Is this answer helpful? Yes No

Why do males only need one variant to have an increased risk of developing symptoms of G6PD deficiency, whereas most females need two variants or two copies of a variant?

The variants we tested are in the G6PD gene, which is located on the X chromosome. This means the G6PD gene is inherited differently than most genes, in a manner called X-linked recessive inheritance. Learn more about X-linked recessive inheritance.

Is this answer helpful? Yes No

My report says one variant was detected but my result for one variant could not be determined. What are some things I could do?

Your genetic result means you have one of the two genetic variants we tested. But we could not determine your result for the other tested variant. Most females need to have two copies of a variant, or two different variants, to develop symptoms of G6PD deficiency.

However, it is still possible to have the genetic variant that could not be determined, or another genetic variant not tested.

Consider talking to a healthcare professional if:

- You have a family history of G6PD deficiency or hemolytic anemia.
- You think you might have symptoms of G6PD deficiency.
- You have concerns about your results.

Is this answer helpful? Yes No

How could my result affect my family?

Since you share DNA with your family members, they may also be interested in your result. If you are thinking about talking to family members about your results, see this article for a discussion of things to consider before having the conversation.

Because you have one copy of a variant we tested, it is expected that:

- Each of your children has a 50% chance of inheriting this variant from you. Any male children who inherit this variant are at risk of developing symptoms of G6PD deficiency.
- At least one of your parents has this variant.
- Your siblings may also have this variant.

In most cases, female children who inherit this variant from you are not expected to develop symptoms of G6PD deficiency unless they also inherit a variant from your partner. This is because of the way this variant is inherited, called X-linked recessive inheritance.

Is this answer helpful? Yes No

Have more questions? Check out our Customer Care Help Center.