GPD Deficiency is linked to variants in the GPD gene.

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

Test Interpretation

The table provides information about the GPD deficiency in a person who has the condition.

<table>
<thead>
<tr>
<th>Variant</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNP 1</td>
<td>0.5</td>
</tr>
<tr>
<td>SNP 2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Other Factors

GPD deficiency may also be caused by factors other than genetic variants, such as environmental or lifestyle factors.

Indications for Test

This test can help identify variants in the GPD gene that may be linked to GPD deficiency. The test is recommended for individuals with symptoms or a family history of GPD deficiency.

Test Performance Summary

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Positive Predictive Value</th>
<th>Negative Predictive Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPD Test</td>
<td>0.8</td>
<td>0.9</td>
<td>0.9</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Warnings and Limitations

- The test may not detect all genetic variants associated with GPD deficiency.
- The test may not detect variants that are present in only a small proportion of the population.
- The test may not detect variants that are more common in certain populations.


Maeda et al. 2015: "Genetic Variants of GPD1 and GPD2 Are Associated with Serum Iron Levels." J Clin Endocrinol Metab. 2015;100(10):3612-3620.
**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. If a person has 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?**

The report says the variants included in this test are most common and have been 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. What does this mean?**

This means you have one of the two genetic variants we tested.

Males with this result are at risk of developing symptoms of G6PD deficiency. However, this does not mean you have developed or definitely will develop symptoms of G6PD deficiency. Exposure to certain environmental factors is usually required to trigger symptoms. Many people with G6PD deficiency do not experience symptoms. Learn more about factors that can trigger symptoms of G6PD deficiency.

**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 [ ]

**What does increased risk mean?**

The G6PD enzyme is important for protecting red blood cells against damage. Certain variants in the G6PD gene can make the G6PD enzyme less effective at protecting these cells, which can lead to their destruction in response to certain medications, infections, and foods. When red blood cells are destroyed, people with G6PD deficiency may experience symptoms of anemia, including dark urine, pale skin, rapid heartbeat, and jaundice.

If your report says you have an "increased risk," it means that your chances of developing anemia due to G6PD deficiency are increased based on your genetic result for the test.

However, many people with G6PD deficiency do not develop symptoms. Exposure to certain environmental triggers - such as certain medications, infections, and foods - is usually required to develop symptoms. Learn more about factors that can trigger symptoms of G6PD deficiency.

The exact percentage of people with your genetic result who develop symptoms of G6PD deficiency is not currently known.

It is important to discuss this result with a healthcare professional.

**Is this answer helpful?**

Yes [ ] No [ ]

**My report says one variant was detected. What are some things I could do?**

This genetic result is associated with an increased risk of developing symptoms of G6PD deficiency. Consider setting up an appointment with a healthcare professional to discuss this result.

**Is this answer helpful?**

Yes [ ] No [ ]

**How could my result affect my family?**

Since you share G6PD with your family members, they may also be interested in your result. If you are thinking about talking to family members about your result, see this article for a discussion of things to consider before having the conversation.

Because you have one variant, it is expected that:

- Each of your female children will inherit this variant from you. In most cases, they are not expected to develop symptoms of G6PD deficiency unless they also inherit a variant from your partner.
- Your mother has this variant.
- Each of your siblings has at least a 50% chance of having this variant.

Because of the way this variant is inherited, your male children are not expected to inherit this variant from you. Learn more about how this variant is inherited, called X-linked recessive inheritance.

**Is this answer helpful?**

Yes [ ] No [ ]

[How more questions? Check our Customer Care Help Center.](#)