

Glyphosate Sensitivity

Biohacker Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

Table of Contents

03 How this works

- 04 Impact
- 05 Evidence
- 06 Some things to keep in mind

07 Introduction

08 Your genetics

10 Your recommendations

13 Next Steps

- 13 Your Lab Results

DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Personal information

NAME

Sample Client

SEX AT BIRTH

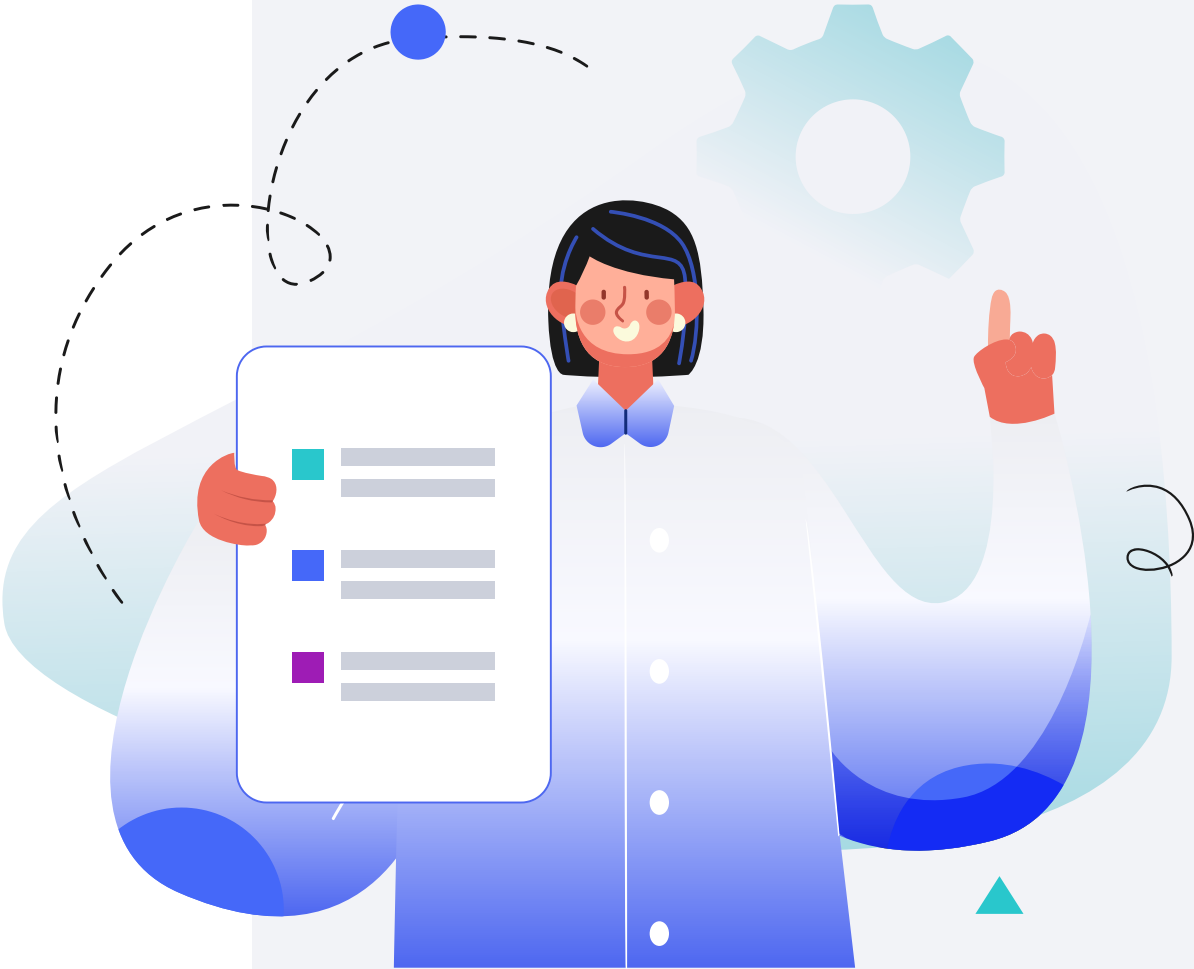
Male

HEIGHT

5ft 5" 165cm

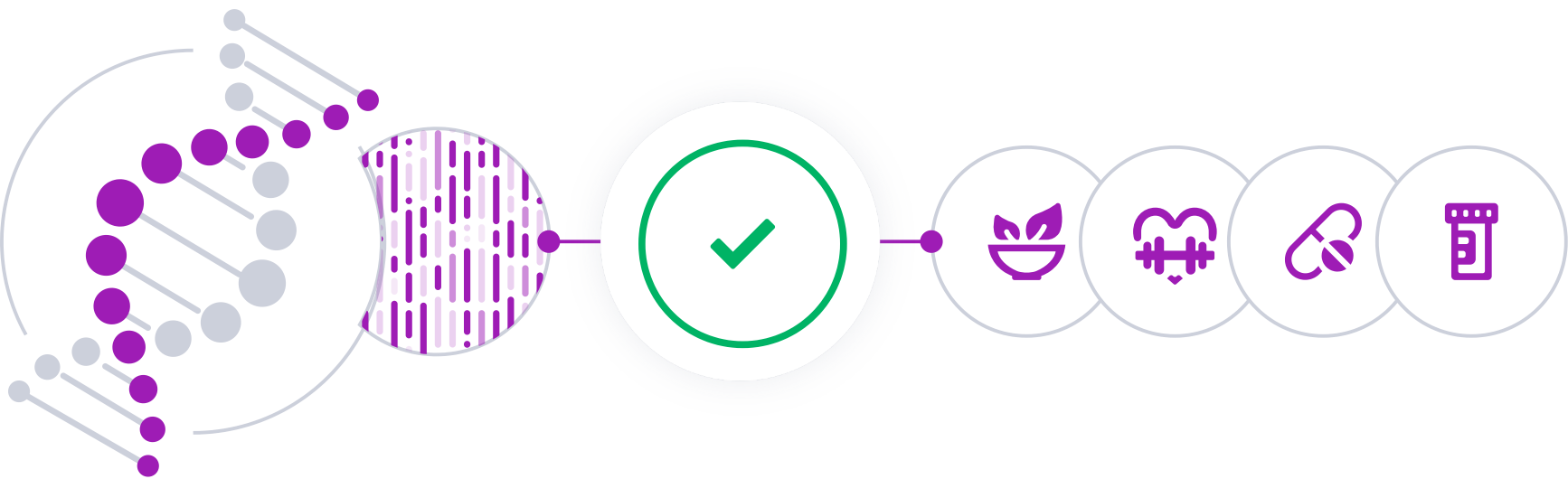
WEIGHT

137lb 62kg



How this works

Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.

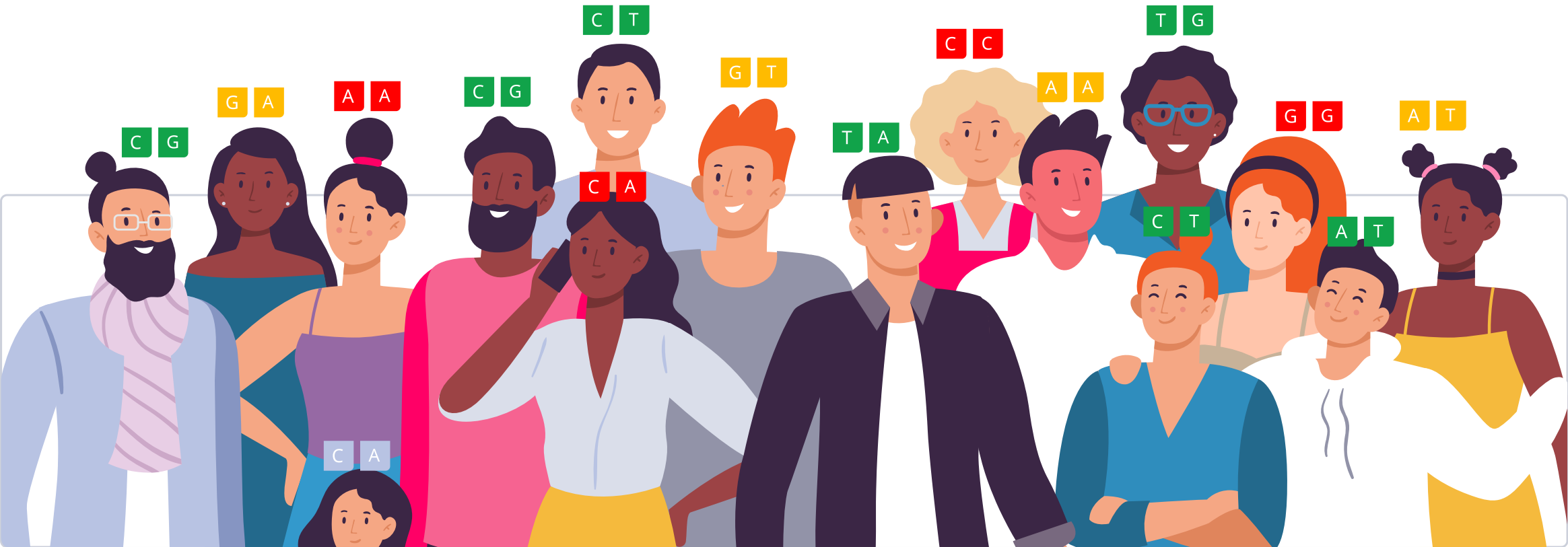


Similarly, our Trait Reports look at how your DNA influences your traits.



Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



We use artificial intelligence and machine learning to analyze all this information.
We then summarize your results as a risk score or display it on a gauge.

In total, we analyze up to 83 million genetic variants.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

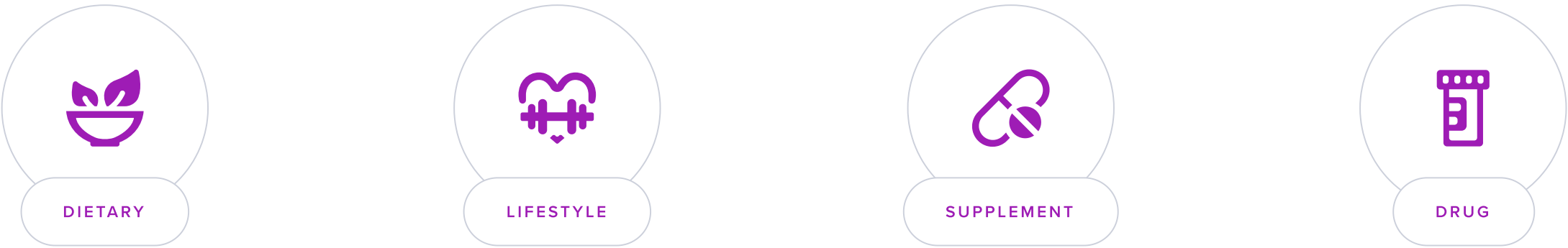
You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs. The following icons tell you which category a recommendation falls into:



Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):



Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

5 / 5

Recommendations that are considered effective and generally recommended by experts and medical bodies.

4 / 5

Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.

3 / 5

Recommendations that are considered possibly effective and have many studies supporting them

2 / 5

Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.

1 / 5

Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.

0 / 5

No evidence in humans.

Genotype-specific Evidence

High-quality

Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, a few large clinical trials, or a meta-analysis).

Medium-quality

Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).

Low-quality

Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).

Indirect

A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).

In theory

A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

Glyphosate is the most widely used herbicide (weed killer) in the world. It is the active ingredient in *RoundUp*.

Glyphosate is non-selective, which means it kills most plants. Its use has skyrocketed since the introduction of glyphosate-resistant GMO crops.

It belongs to **organophosphates**, the most commonly used pesticides in agriculture. Although they are supposed to degrade when exposed to air and light, organophosphate residue remains on many of the fruits and vegetables we eat [\[R\]](#), [\[R\]](#), [\[R\]](#).

The main European and US health authorities say that glyphosate is safe for humans when used properly [\[R\]](#). However, some studies have linked glyphosate exposure to:

- Kidney disease [\[R\]](#)
- Liver damage [\[R\]](#)
- Hormonal disbalance [\[R\]](#), [\[R\]](#)
- DNA damage [\[R\]](#), [\[R\]](#)
- Nerve damage [\[R\]](#)

A potential link between this chemical and cancer is also controversial. Major regulatory agencies across the globe say that glyphosate is not likely to be carcinogenic. On the other hand, the International Agency for Research on Cancer considers it “probably carcinogenic” [\[R\]](#).

In the light of conflicting safety data, many countries have recently banned or restricted glyphosate use [\[R\]](#).

Genetics of Glyphosate Sensitivity

Key Takeaways:

- Glyphosate (RoundUp) is the most widely used weed killer in the world.
- Most people are exposed to this chemical to a certain degree.
- Many countries have banned it due to potential links with cancer and other adverse effects.
- People with certain gene variants may be more sensitive to the adverse effects of glyphosate.

Genetics might be one of the reasons for conflicting data on glyphosate side effects. People may be more or less sensitive to this chemical depending on certain gene variants they carry.

Glyphosate and other organophosphates tend to reduce the levels of an enzyme called cholinesterase. This effect may be more pronounced in people carrying the 'C' allele at [rs1048943](#). The authors suggest that reduced enzyme levels may be a sign of **liver damage** [\[R\]](#).

This variant belongs to the [CYP1A1](#) gene, which plays a role in pesticide detox [\[R\]](#).

In another study, glyphosate exposure showed a stronger link with **prostate cancer** in people carrying the 'C' allele at [rs9579645](#). This variant belongs to the [ALOX5AP](#) gene, which plays a role in fat metabolism and inflammation [\[R\]](#), [\[R\]](#).

Please note: Your other gene variants, diet, and environment may also influence your glyphosate sensitivity. The available genetic research for this report was limited, so please take your results with a grain of salt.

Ways to reduce your pesticide exposure include [\[R\]](#), [\[R\]](#):



Likely typical glyphosate sensitivity based on 2 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CYP1A1	rs1048943	TT
USPL1	rs9579645	AA

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

- Eating a variety of fruits and vegetables to avoid high exposure to one pesticide
- Buying organic food when possible
- Thoroughly washing and drying your food, even if it's labeled organic
- Scrubbing or peeling fruits and vegetables when possible
- Discarding the outer layer of leafy vegetables

Your Recommendations

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You'll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

	DOSAGE		DOSAGE
1	Avoid Glyphosate Exposure	2	Activated Charcoal
			500 mg

1



Avoid Glyphosate Exposure

IMPACT

4 / 5

EVIDENCE

3 / 5

How to implement

To avoid glyphosate exposure, choose certified organic foods whenever possible as these are less likely to be treated with glyphosate. Additionally, if you live in a rural or agricultural area, stay informed about local spraying schedules and take precautions during these times, such as keeping windows closed and avoiding outdoor activities. For personal lawn and garden care, opt for glyphosate-free weed control methods.

Description

Glyphosate is the most widely used herbicide (weed killer) in the world. It is the active ingredient in *RoundUp*.

The main European and US health authorities say that glyphosate is safe for humans when used properly [\[R\]](#). However, some studies have linked glyphosate exposure to:

- Cancer [\[R\]](#)
- Kidney disease [\[R\]](#)
- Liver damage [\[R\]](#)
- Hormonal disbalance [\[R\]](#), [\[R\]](#)
- DNA damage [\[R\]](#), [\[R\]](#)
- Nerve damage [\[R\]](#)

How it helps

Reducing exposure to glyphosate and other pesticides may help reduce their harmful effects on health. Ways to reduce your pesticide exposure include [\[R\]](#), [\[R\]](#):

- Eating a variety of fruits and vegetables to avoid high exposure to one pesticide
- Buying organic food when possible
- Thoroughly washing and drying your food, even if it's labeled organic
- Scrubbing or peeling fruits and vegetables when possible
- Discarding the outer layer of leafy vegetables

2



Activated Charcoal

IMPACT1 / 5

EVIDENCE0 / 5

How to implement

Take 500-1000 mg of activated charcoal with a full glass of water at least 1 hour before a meal or 2 hours after a meal. Do not consume it daily for long periods; use it for short-term detoxification or occasional upset stomach only.

TYPICAL STARTING DOSE

500 mg

Description

Activated charcoal is a porous substance that is highly effective at absorbing and trapping toxins and chemicals in the digestive tract. It is sometimes used in emergency medical settings for poisoning treatment and in certain beauty and wellness products.

How it helps

Treatments including activated charcoal have been reported to help with intentional glyphosate poisoning [\[R\]](#), [\[R\]](#).

Activated charcoal may help by adsorbing glyphosate, potentially reducing its absorption and assisting in its removal from the body.

Next Steps

Remember, your genes only tell one important part of your health story!

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your lab results

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.