

Oxalate Sensitivity

Biohacker Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

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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

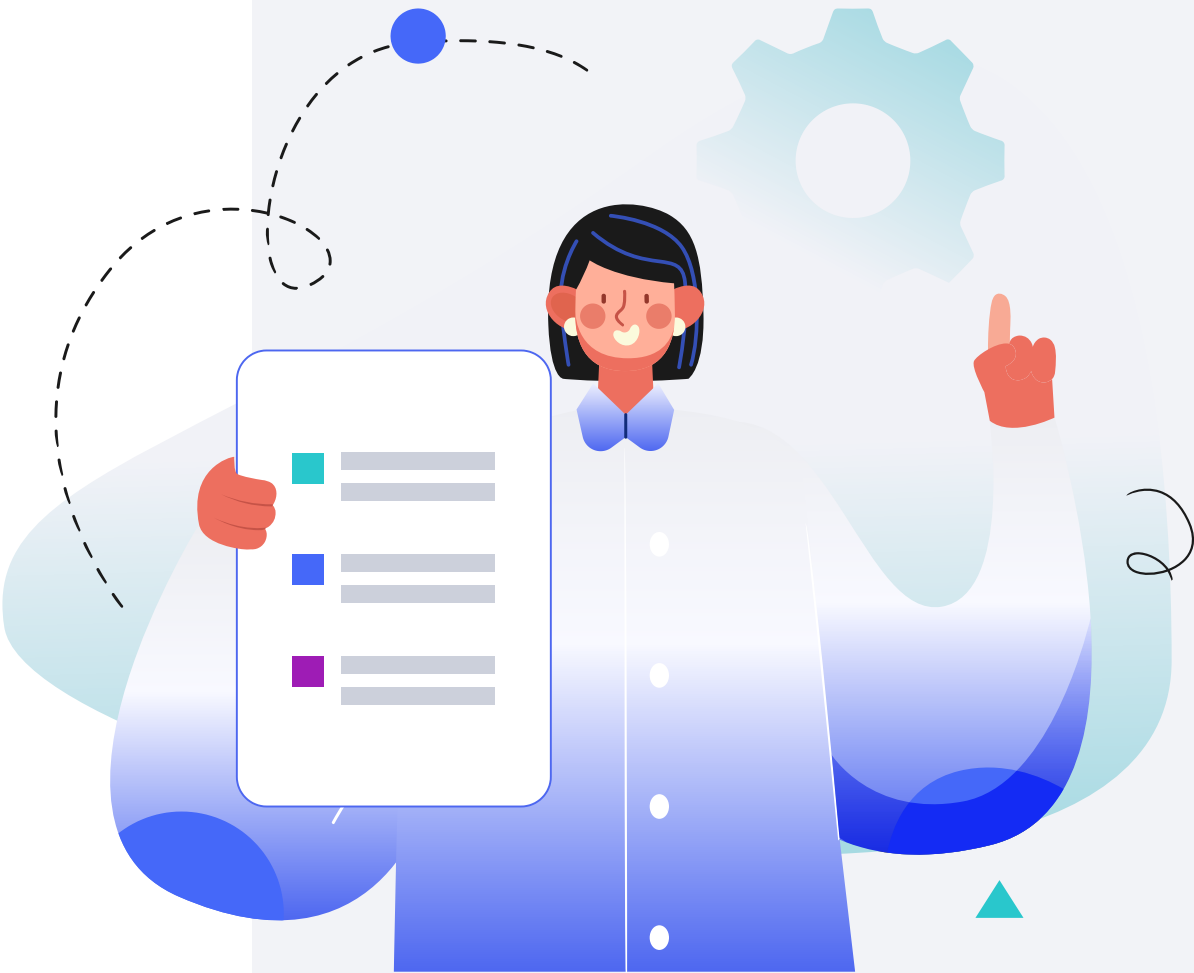
Male

HEIGHT

5ft 5" 165cm

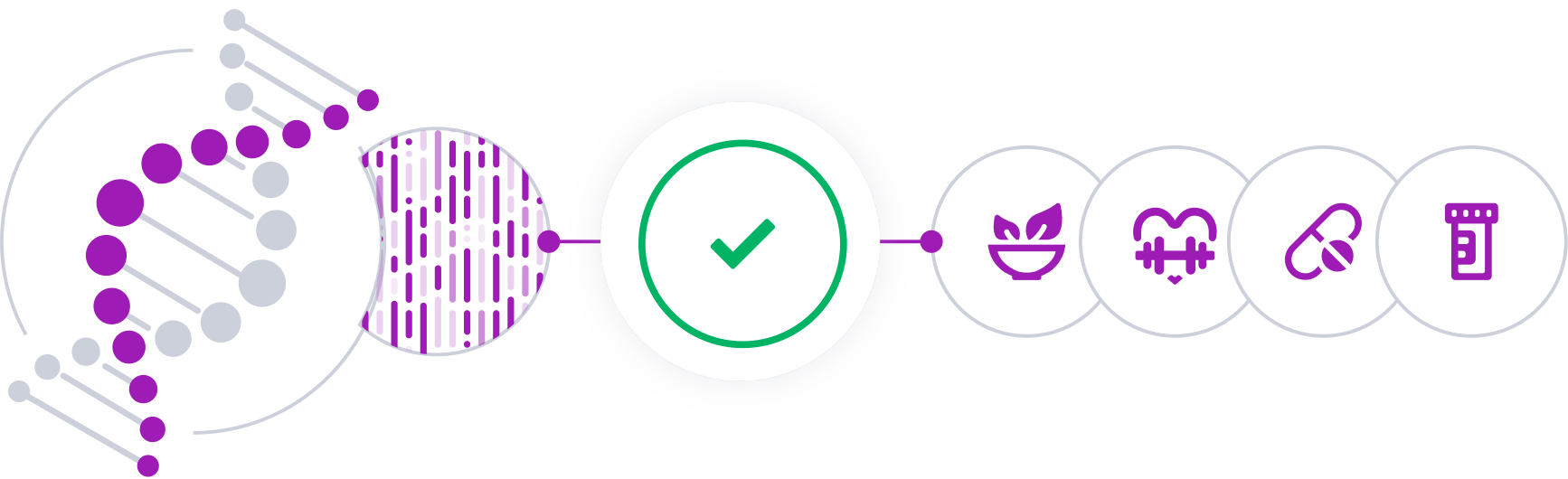
WEIGHT

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.

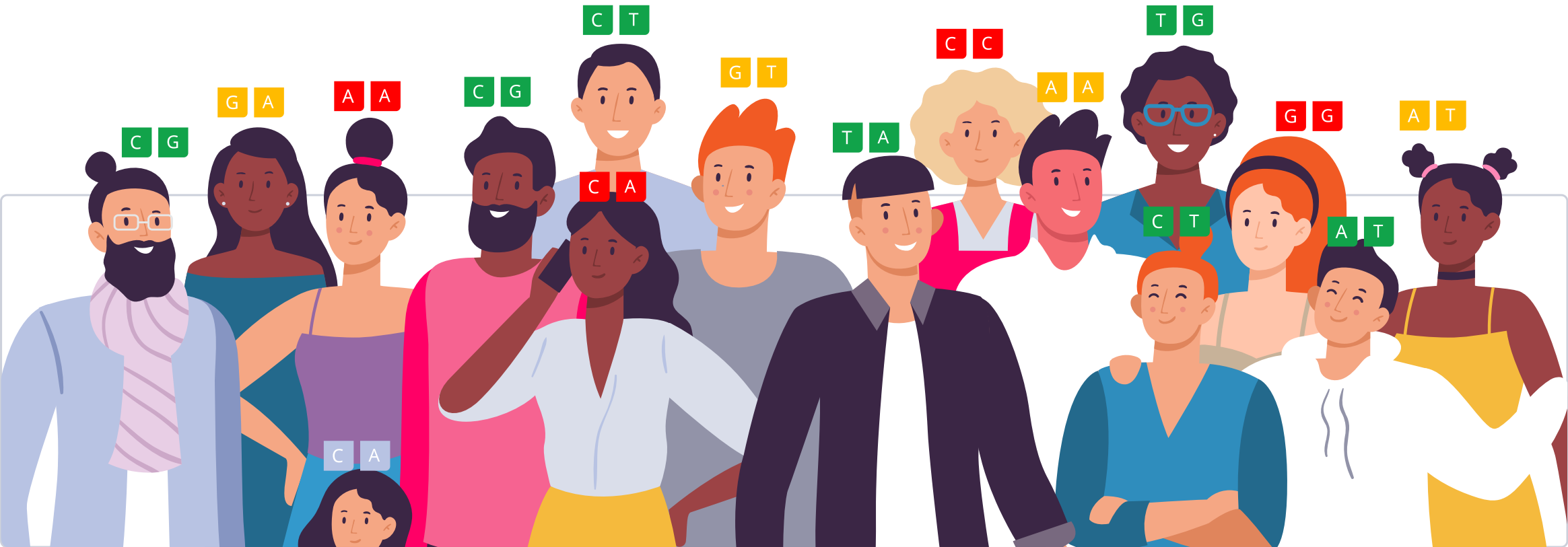


Similarly, our Trait Reports look at how your DNA influences your traits.



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

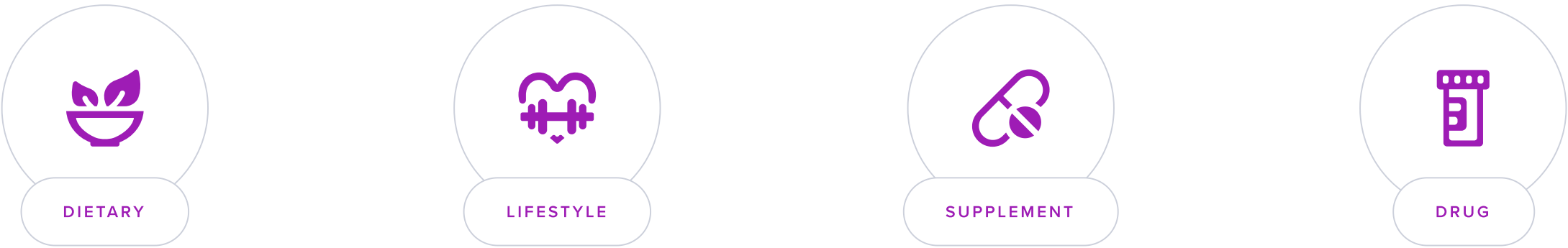
You have 2 risk alleles

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

Oxalate (*oxalic acid*) is a natural substance found in many foods, such as [R](#), [R](#), [R](#):

- **Spinach**
- **Tea**
- **Coffee**
- Chocolate
- Beets
- Nuts

Adults typically get 150-250 mg of oxalate every day. Oxalate binds calcium, forming crystals that are hard to dissolve. Thus, a high intake of oxalate may reduce calcium absorption and increase the risk of kidney stones [R](#), [R](#), [R](#).

Besides forming kidney stones, oxalate crystals may affect the joints, skin, and eyes [R](#), [R](#).

To prevent excessive oxalate levels, you should [R](#), [R](#), [R](#):

- Limit your intake of oxalate-rich foods and drinks
- Boil and steam foods high in oxalate to reduce their oxalate content
- Get more calcium, which binds oxalate and reduces its absorption
- Avoid over-supplementing with vitamin C, which may raise oxalate levels

Who Should Pay Attention to Oxalate?

Key Takeaways:

- People prone to or at higher risk for kidney stones may need to pay attention to oxalate intake.
- Other risk factors include excessive vitamin C supplementation, high oxalate food intake, not enough calcium in the diet, gut disorders, and your microbiome.
- Kidney stones are common, so high genetic risk means you may want to take action on those factors that you can change.

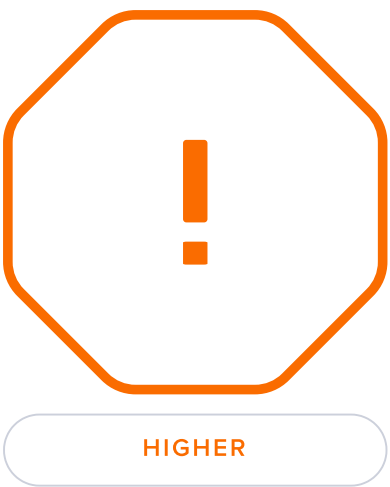
According to experts, people who get kidney stones should pay special attention to their oxalate levels. This is because oxalate intake and levels may contribute to kidney stones [\[R, R, R, R, R\]](#).

People who get kidney stones tend to absorb more oxalate from food. This may lead to higher oxalate in the urine and the formation of **calcium oxalate, the most common type of kidney stones** [\[R, R\]](#).

In other words, **people prone to kidney stones may be more sensitive to oxalate.**

However, keep in mind that other factors may influence your oxalate sensitivity. These include [\[R, R, R, R\]](#):

- Diet
- Digestive disorders
- Gut flora



Likely higher “oxalate sensitivity” based on 816,639 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SCNN1B	rs889299	GG
CYP24A1	rs17216707	TC
GNAZ	rs13054904	TA
SOX9	rs4793434	GC
SPP1	rs2853744	GG
AGXT	rs34116584	CT
CLDN14	rs219780	CC
RGS14	rs12654812	AA
RGS14	rs56235845	GG
RGS14	rs10051765	CC
TBX2	rs1010269	GG
ALPL	rs6703976	CT
CHAF1B	rs2776288	GA
DGKH	rs1037271	TC
ALPL	rs10917002	CT
POU2AF1	rs4529910	TG
PTGER1	rs3760702	GA
PKD2	rs9138	AA
DGKH	rs4142110	TT
SPP1	rs1126616	CC
KCNK5	rs1155347	TT
SLC22A2	rs28495851	AA
SLC22A2	rs77648599	TT
PDILT	rs77924615	GG
RAP1GAP	rs1256328	CC
AQP1	rs12666466	CC
RAP1GAP	rs1256332	CC
CSTA	rs7627468	GG
DGKH	rs1170174	GG
MORC3	rs12626330	CC
HIBADH	rs7790498	GG
HIBADH	rs12539707	CC

GENE	SNP	GENOTYPE
DGKD	rs838717	AA
PKD2	rs1481012	AA
DGKD	rs13003198	CC
GCKR	rs780093	CC
WDR72	rs578595	AA

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

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	Reduce Oxalate Intake	2	Avoid Vitamin C Supplements
3	Magnesium350 mg	4	Calcium Supplements1000 mg
5	Drink at Least 8 Glasses of Water a Day		

1



Reduce Oxalate Intake

IMPACT

4 / 5

EVIDENCE

4 / 5

How to implement

Avoid high-oxalate foods such as spinach, beets, potatoes, and nuts. Instead, choose low-oxalate options like bananas, cabbage, and cucumbers. Aim to keep your daily oxalate intake under 100mg.

Description

Reducing oxalate intake means consuming foods and beverages with lower oxalate content, which can help prevent kidney stone formation and support kidney health. Oxalates are naturally occurring compounds found in various foods like spinach, chocolate, and nuts, and managing their intake is important for those prone to kidney stone formation.

Oxalate (*oxalic acid*) is a natural substance found in many foods, such as [\[R\]](#), [\[R\]](#), [\[R\]](#):

- **Spinach**
- Tea
- Rhubarb
- Chocolate
- Beets
- Nuts

Adults typically get 150-250 mg of oxalate every day. A high intake of oxalate may reduce calcium absorption and increase the risk of kidney stones [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

According to experts, people who get kidney stones should limit their intake of foods rich in oxalate. This is because high dietary oxalate may be linked to kidney stones [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

People who get kidney stones tend to absorb more oxalate from food. This may lead to higher oxalate in the urine [\[R\]](#).

Adopting a diet low in oxalate may help by reducing the amount of oxalate in the urine [\[R\]](#), [\[R\]](#).

Note that people who limit oxalate should also aim to get enough calcium. Increased calcium intake may decrease oxalate absorption. It may also help prevent the buildup of oxalate in the urine [\[R\]](#), [\[R\]](#).

2



Avoid Vitamin C Supplements

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Stop taking all forms of vitamin C supplements, including pills, chewables, powders, and liquids. If vitamin C is part of a multivitamin or other combined supplement you are taking, look for alternatives that do not contain vitamin C. This exclusion should be maintained permanently or until your healthcare provider advises otherwise.

Description

Limiting excessive vitamin C supplementation is advisable, as high doses may lead to potential side effects such as kidney stones and interactions with medications.

[Vitamin C](#) is an **essential nutrient**. This means that our bodies can’t produce it on their own, so we have to get it from food or supplements [\[R\]](#).

Vitamin C has antioxidant properties. It supports immunity, heart health, and wound healing [\[R\]](#), [\[R\]](#).

However, **excessive supplementation with vitamin C may have adverse effects** [\[R\]](#), [\[R\]](#).

How it helps

Experts advise people who form stones to avoid excessive vitamin C intake. This advice may be particularly applicable to men [\[R\]](#), [\[R\]](#), [\[R\]](#).

Vitamin C can form oxalate during digestion. This may increase the amount of oxalate in the urine [\[R\]](#), [\[R\]](#).

The effect of different doses of vitamin C on kidney health isn’t completely clear. However, **it may be best to get 1,000 mg/day at most** [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

3



Magnesium

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take up to 350 mg of magnesium daily as a supplement, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

350 mg

Description

Magnesium is an essential mineral involved in various bodily functions, including muscle contractions, nerve signaling, and bone health. Maintaining adequate magnesium levels through diet or supplements can support overall well-being and reduce the risk of magnesium deficiency-related health issues.

[Magnesium](#) is an essential mineral. Your body needs it for [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Muscle, nerve, and bone function
- Blood sugar and blood pressure control
- DNA and protein production
- Strong immunity

Women need **310-320 mg** of magnesium per day, while men need **400-420 mg** [\[R\]](#).

Foods rich in magnesium include **nuts, seeds, and leafy greens**. Magnesium is also available as a supplement [\[R\]](#).

How it helps

Magnesium can help inhibit the formation of oxalate crystals, reducing the risk of kidney stones in individuals with oxalate sensitivity. It assists in the solubilization of oxalate in the urine.

4



Calcium Supplements

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 500-600 mg of calcium supplement twice daily with food. For best absorption, do not exceed 600 mg at one time and ensure a total daily intake of 1000-1200 mg from all sources, including diet. Continue indefinitely for ongoing support of bone health.

TYPICAL STARTING DOSE
1000 mg

Description

Calcium supplements are commonly used to support bone health and prevent conditions like osteoporosis. Adequate calcium intake is essential for maintaining strong bones and teeth.

[Calcium](#) is the most abundant mineral in the human body. It is vital for the bones, heart, muscles, and nervous system [\[R\]](#).

Your body gets calcium from food and needs vitamin D to help absorb it. Calcium can be found in a variety of foods, including [\[R\]](#):

- Dairy products
- Green, leafy vegetables
- Fish with edible soft bones (e.g., sardines)
- Calcium-fortified foods and beverages

How it helps

Calcium binds to oxalates in the intestines, which can help prevent the absorption of oxalate and reduce the risk of kidney stone formation in people with oxalate sensitivity.

5



Drink at Least 8 Glasses of Water a Day

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Consume a total of at least 64 ounces (or approximately 1.9 liters) of water over the course of the day. This can be divided into 8 glasses, each containing 8 ounces of water. Aim to drink evenly throughout the day to avoid dehydration.

Description

Water is an essential nutrient for nearly every process in your body, helping to mainting brain and gut function, maintain a health weight, as well as energy and performance levels, among others.

Water is essential for life. It supports nearly every process in your body [\[R\]](#).

Water helps maintain [\[R\]](#):

- Energy and performance levels
- Brain function
- Gut function
- Healthy weight

Most experts recommend drinking **around 8 glasses (64 oz. or 2 L) of water daily**. You might need more or less than this, depending on how active you are, where you live, or what your overall health is like [\[R\]](#).

How it helps

Staying well-hydrated is crucial for people with oxalate sensitivity as it dilutes urine, which can help prevent kidney stones from forming.

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.

