

Chromium

DNA Health Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026



Powered by

 omicsedge

Table of Contents

03 How this works

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

07 Introduction

08 Your genetics

09 Your recommendations

16 Next Steps

- 16 Your Lab Results

Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

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.



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

[Chromium](#) (Cr) is a trace element. It helps regulate carb, fat, and protein breakdown [\[R\]](#).

Women need **20-25 micrograms** (mcg) of chromium per day, while men need **30-35 mcg** [\[R\]](#).

It’s easy to get chromium from your diet. Good sources include [\[R\]](#):

- Grape and orange juice
- Meat
- Lettuce

Chromium supplements are also available. People usually take them to improve blood sugar control [\[R\]](#), [\[R\]](#), [\[R\]](#).

Please note: *If you have kidney or liver disease, do not take chromium without talking to your doctor first. If you have diabetes, taking chromium supplements may change the medication or insulin dosage you need* [\[R\]](#).

Chromium Genetics

Scientists have found many gene variants affecting chromium levels. However, the mechanisms behind these genetic effects are still largely unknown [R, R].

Interestingly, variants linked to chromium levels may also be involved in cognitive function [R].

Keep in mind that your diet and environment also influence your chromium levels.



TYPICAL NEED

Likely typical need for chromium based on 20 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
PTPRM	rs600533	AA
TRDN	rs78279606	GG
KIAA1549L	rs7104844	CC
/	rs117244450	CC
ADRB1	rs78721021	TT
SMIM21	rs12607014	TC
ELAC2	rs12602392	CC
TCERG1L	rs11017755	CT
ARHGEF4	rs12987736	CT
TRNT1	rs62234189	CC
GPC6	rs80211266	TT
NIPBL	rs74811583	AA
HS6ST3	rs79262085	CC
KITLG	rs61924870	AA
ZCCHC7	rs7850996	TT
ZCCHC7	rs13290794	GG
MICAL2	rs12803936	CC
FIG4	rs9487211	TT

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	Beef	2	Bananas
3	Apples	4	Chromium200 mcg
5	Brewer's Yeast	6	Lettuce
7	Turkey	8	Pork
9	Green beans		

1



Beef

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Incorporate lean beef into your diet 2-3 times per week, with a serving size of about 3-4 ounces (85-113 grams) per meal. Choose cuts like sirloin or round to minimize saturated fat intake.

Description

Beef is a rich source of high-quality protein, essential vitamins, and minerals like iron and zinc. Incorporating lean cuts of beef into a balanced diet can support muscle growth, overall nutrition, and iron intake.

Beef is an excellent source of many B-vitamins, protein, proline, and minerals like zinc and iron. Grass-fed uncharred beef is healthiest. Beef contains 34.82 mg of proline per gram.

How it helps

Beef is rich in chromium, an essential nutrient that helps regulate blood sugar and cholesterol. When included in your diet, it can reduce the risk of chromium deficiency, which can manifest as impaired glucose tolerance.

2



Bananas

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate 1-2 bananas into your daily diet. Bananas can be eaten as a standalone snack, added to cereal, oatmeal, or smoothies, or used as an ingredient in baking. Aim to include them regularly for ongoing dietary benefits.

Description

Bananas are a nutrient-rich fruit packed with potassium, fiber, and essential vitamins. They are a convenient and healthy snack option that can help support heart health, digestive regularity, and overall well-being.

Bananas are a good source of vitamins B6 and C, as well as numerous minerals, including potassium, copper, and magnesium. A single banana provides 0.4 mg of vitamin B6 or 25%DV.

How it helps

Bananas, packed with essential nutrients, can help maintain healthy levels of chromium in your body. Consuming bananas regularly ensures adequate chromium intake, which in turn aids in the regulation of blood sugar levels and enhances insulin sensitivity, thus preventing chromium deficiency-related issues.

3



Apples

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate at least one whole apple into your daily diet, either as a snack or part of your meals, ensuring to eat them consistently every day for an ongoing period to derive potential health benefits.

Description

Apples are a nutritious fruit known for their fiber content and antioxidant-rich skin. They support overall health by aiding digestion, reducing the risk of chronic diseases, and promoting heart health.

Apples (*Malus domestica Borkh.*) are one of the most widely consumed fruits in the world. They have a high nutritional value and content of antioxidants [\[R\]](#), [\[R\]](#).

Eating apples is associated with a lower risk of [\[R\]](#), [\[R\]](#):

- Heart disease
- Asthma
- Diabetes

How it helps

Apples are a good source of chromium which helps regulate your blood sugar by enhancing the effects of insulin. Regularly consuming apples can, therefore, help prevent chromium deficiency, reducing the risk of insulin resistance and type 2 diabetes.

4



Chromium

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a 200 mcg chromium supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

200 mcg

Description

Chromium is a trace mineral that plays a role in insulin sensitivity and glucose metabolism. Adequate chromium intake through diet or supplements may help support blood sugar control and overall metabolic health.

[Chromium](#) (Cr) is a trace element. It helps regulate carb, fat, and protein breakdown [\[R\]](#).

Women need 20-25 micrograms (mcg) of chromium per day, while men need 30-35 mcg [\[R\]](#).

It’s easy to get chromium from your diet. Good sources include [\[R\]](#):

- Grape and orange juice
- Ham
- Beef
- Lettuce

You can also get chromium from supplements [\[R\]](#).

How it helps

Chromium supplementation may enhance the body's sensitivity to insulin, aiding in better glucose control, which is essential for people managing diabetes. Regular intake may also help prevent chromium deficiency, a condition that can lead to impaired glucose regulation.

5



Brewer's Yeast

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 1 to 2 tablespoons of brewer's yeast daily, mixing it into water, juice, smoothies, or food. It can be consumed at any time of day, but incorporating it into a regular, daily routine ensures consistent intake. Continuation can be long-term if it agrees with your system and you're seeing desired outcomes.

Description

Brewer's yeast is a nutritional supplement rich in B vitamins, minerals, and protein. It's often used to support energy levels, boost metabolism, and promote overall health, particularly for individuals with dietary restrictions or specific nutritional needs.

Brewer's yeast is a great source of B-vitamins and minerals like chromium, iron, zinc, and selenium. A 1 tablespoon serving provides 3.3 mcg of chromium or 9%DV.

How it helps

Brewer's yeast is rich in chromium that enhances insulin activity and improves your body's response to glucose, preventing glucose intolerance, a major factor in developing diabetes. So adding it to your diet can help maintain balanced blood sugar levels.

6



Lettuce

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Incorporate fresh lettuce into your diet by adding it to salads, sandwiches, and wraps. Aim for at least one serving (approximately one cup of chopped lettuce) daily for general health benefits.

Description

Lettuce is a low-calorie, nutrient-dense leafy green that can be a valuable addition to a balanced diet. It provides essential vitamins and minerals while contributing to hydration and supporting overall health.

Lettuce is a good source of the vitamins A, C, and K, and minerals like chromium, calcium, and potassium. A 5-ounce serving provides 1.8 mcg of chromium or 5%DV.

How it helps

Lettuce is high in chromium, a mineral that helps regulate glucose in the body by enhancing the function of insulin. Regularly incorporating lettuce into your diet can therefore help maintain balanced blood sugar, preventing chromium deficiency-related glucose intolerance and insulin resistance.

7



Turkey

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate turkey into your diet 2-3 times per week, choosing lean cuts like turkey breast. Aim for portions about the size of a deck of cards (3-4 ounces) for each serving.

Description

Turkey is a poultry meat known for its lean protein content and is a good source of nutrients like selenium and B vitamins. It is valued for its health benefits, including muscle growth, immune support, and stress reduction due to its content of tryptophan, which is a precursor to serotonin.

Turkey is a good source of zine, and rich in B-vitamins, minerals like selenium and phosphorus, and protein. A 3-ounce serving provides 1.5 mg of zinc or 14%DV.

How it helps

Turkey is high in chromium, a mineral important for insulin function that aids glucose metabolism. Including turkey in your diet can help ensure you get enough chromium, potentially reducing the risk of chromium deficiency and its negative impact on blood sugar regulation.

8



Pork

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate lean cuts of pork, such as tenderloin or loin chop, into your diet 2-3 times per week, aiming for a portion size of about 3-4 ounces (85-113 grams) per meal. Cook it using healthy methods like grilling, baking, or broiling to minimize added fats.

Description

Pork is a meat obtained from pigs, and is a great source of zinc, protein, and iron, as well as leucine, selenium, phosphorus, and B-vitamins.

Pork is a good source of protein, chromium, selenium, phosphorus, zinc, and potassium. A 3-ounce serving provides 3.6 mcg of chromium or 10%DV.

How it helps

Eating pork can provide the trace mineral chromium. This is essential for insulin to function properly in our bodies and regulate carbohydrate metabolism, hence preventing chromium deficiency.

9



Green beans

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate green beans into your diet by adding them to at least one meal per day. They can be steamed, boiled, stir-fried, or eaten raw in salads. Aim for a serving size of about half a cup to one cup (about 100 grams to 200 grams) daily.

Description

Green beans are a low-calorie, fiber-rich vegetable packed with vitamins and minerals. They support digestive health, provide essential nutrients, and contribute to overall well-being.

Green beans are a decent source of chromium, potassium, and magnesium, as well as vitamins E, K, and B-vitamins. A ½ cup serving provides 1.1 mcg of chromium or 3%DV.

How it helps

Green beans are rich in chromium, a mineral that improves the function of insulin, a hormone critical for the metabolism and storage of carbohydrate, fat, and protein in the body. Therefore, consuming green beans could contribute to stable blood sugar levels and reduce the risk of Chromium deficiency.

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.