SelfDecode™

Zinc

DNA Health Report

REPORT CATEGORY

NUTRITION

Sample Client

Report date: 15 January 2026

Powered by omicsedge

Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

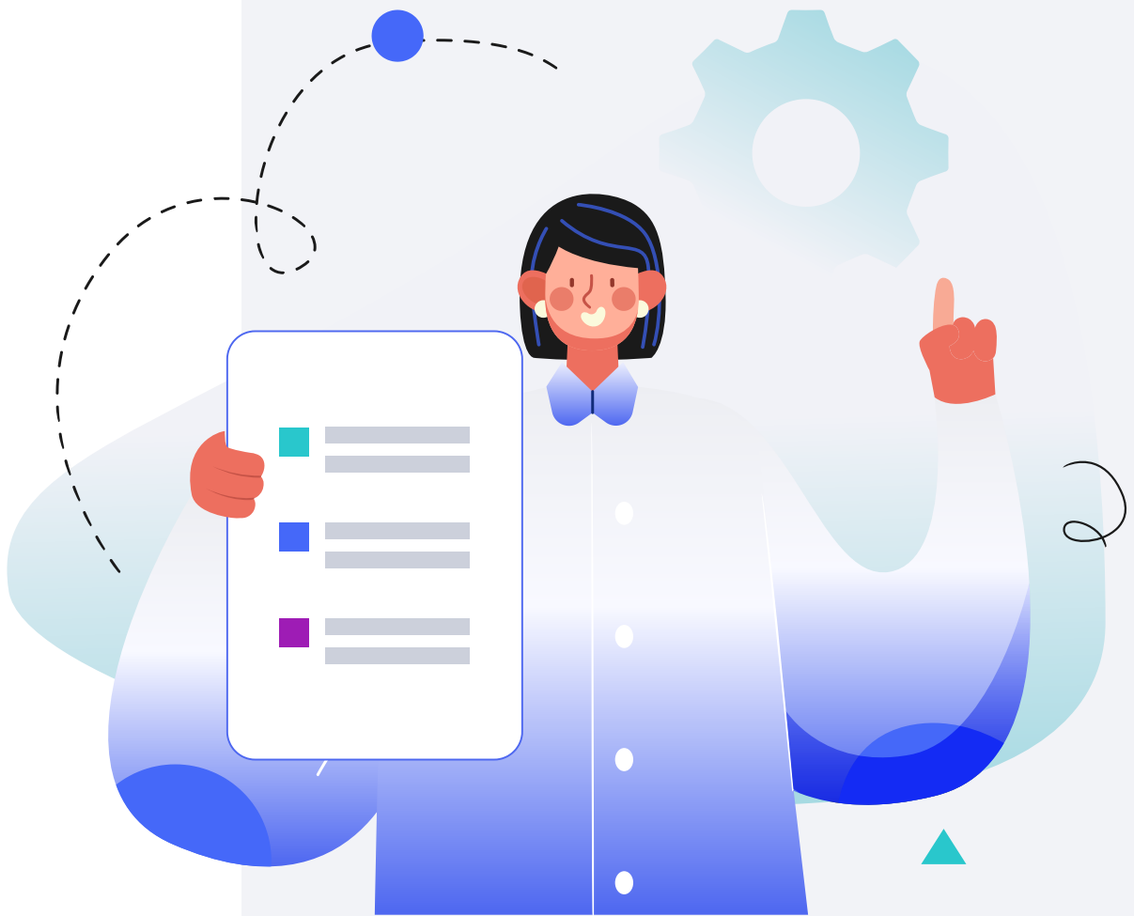
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

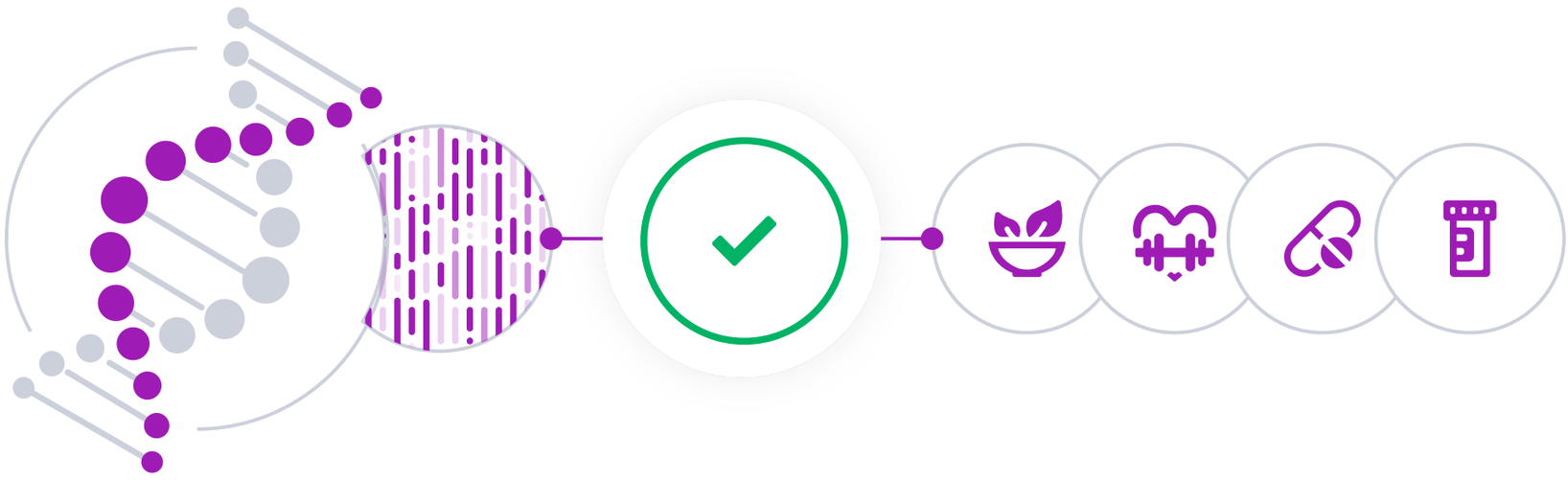


DISCLAIMER

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

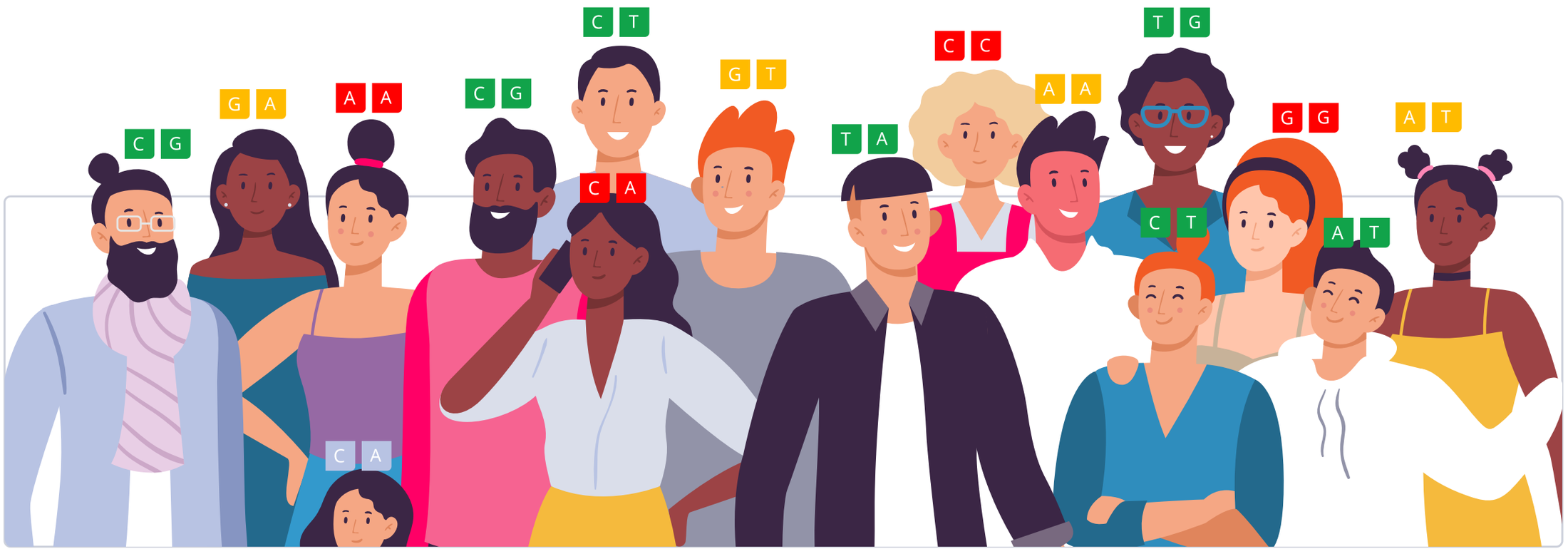
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

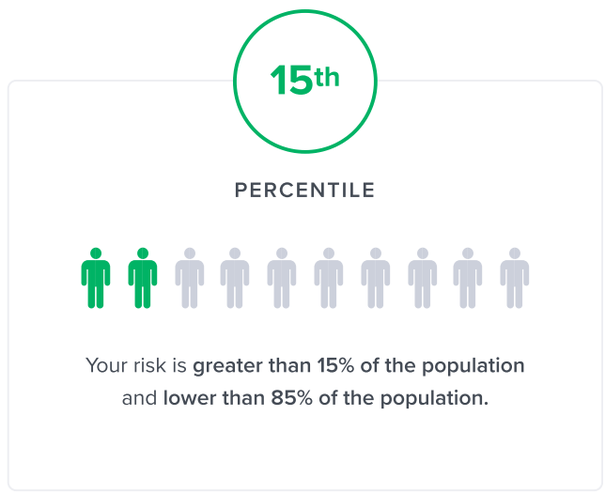
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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.

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

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



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, afew 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

Zinc is an essential mineral. Your body needs it to [R, R]:

- Defend against disease
- Protect DNA from damage
- Heal wounds
- Control blood sugar

Some of the best sources of zinc include **shellfish, pork, beef, and beans**. It is also available as a supplement [R].

Men should get at least **11 mg and women at least 8 mg of zinc** per day. Medical bodies recommend against getting more than 40 mg per day. A high intake of zinc can irritate the gut [R, R, R, R].

Zinc Genetics

PERSONALIZED TO GENES

Based on the genetic variants we looked at, you likely have an increased need for zinc.

You may benefit from eating more foods rich in zinc or monitoring your zinc levels. Try to get at least the recommended daily amount of zinc (11 mg) [R].

Some people have higher zinc levels than others. This may partly be due to genetics. Genes involved may influence zinc metabolism [R, R, R].

Genetically higher zinc levels may be causally associated with [R, R]:

- Gut inflammation (lower risk)
- Fasting glucose (improved)

However, it may also be causally associated with [R, R, R, R, R]:

- Kidney stones (increased risk)
- Longevity (reduced)
- Varicose veins (increased risk)
- Heart health (reduced)
- Joint pain (increased risk)

INCREASED NEED

Likely increased need for zinc based on 8 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SLC30A8	rs13266634	CC
SLC30A8	rs11558471	AA
CA2	rs1532423	GG
SORBS3	rs4872479	GG
SLC5A6	rs11126936	GG
SLC39A8	rs233804	CC
SCAMP5	rs2120019	TC
NBDY	rs4826508	C

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
1	Beef liver	
2	Red Meat	
3	Chickpeas	
4	Zinc	10 mg
5	Oysters	
6	Pumpkin Seeds	
7	Almonds	
8	Pork	
9	Sardines	
10	Crab	
11	Beef Spleen	
12	Lentils	
13	Beef	
14	Beef Heart	
15	Cashews	
16	Turkey	
17	Shrimp	

1

Beef liver

IMPACT 4 / 5

EVIDENCE 3 / 5

How to implement

Incorporate beef liver into your diet 1-2 times per week, aiming for a serving size of about 3-4 ounces (85-113 grams) each time. This can be pan-fried, baked, or incorporated into dishes like stews or pate to make it more palatable.

Description

Beef liver is a commonly recommended organ meat due to its rich content of protein, B-vitamins, and minerals.

Chickpeas are a good source of vitamin B6, iron, folate, fiber, and rich in minerals like copper, zinc, and phosphorus. A ½ cup serving provides 1.1 mg of vitamin B6 or 65%DV.

How it helps

Beef liver is a rich source of zinc. It contains 5.3 mg of zinc per 100 g, which is approximately 48% of the reference daily intake of this nutrient.

2

Red Meat

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Limit your red meat consumption to no more than three portions per week, with each portion being about 3-4 ounces (85-113 grams), roughly the size of a deck of cards. Opt for leaner cuts of meat and consider replacing some red meat meals with poultry, fish, or plant-based protein sources.

Description

Proteins, fats, and carbs are macronutrients. You need these nutrients in large (‘macro’) amounts. They provide your body with the energy it needs to function properly [R].

You should choose high-quality foods that give you the “best” version of each macronutrient. For example, too much saturated fat and protein from certain animal sources may increase the risk of heart disease and infertility [R, R, R].

Red meat can be part of a balanced diet when consumed in moderation. It is a rich source of essential nutrients, including high-quality protein, which helps build and repair tissues, and important vitamins like B12, crucial for nerve health and red blood cell formation. Red meat also contains iron in its heme form, which is more readily absorbed by the body compared to non-heme iron from plant sources. This can be especially beneficial for individuals with iron deficiencies or higher iron needs.

However, it’s important to opt for lean cuts and control portion sizes to reduce the intake of saturated fats. Balance your diet by also incorporating a variety of protein sources such as poultry, fish, and legumes.

How it helps

Red meat is an excellent source of zinc, a mineral that plays a crucial role in immune system function, wound healing, and DNA synthesis. Zinc from animal sources is more bioavailable, which means that the body can absorb and use it more effectively [R].

3

Chickpeas

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Incorporate chickpeas into your diet by adding them to salads, soups, and stews, or by making hummus. Aim for at least a half-cup serving, 3-4 times a week.

Description

Chickpeas, also known as garbanzo beans, are a good source of fiber, protein, and various vitamins and minerals. They can promote digestive regularity, provide sustained energy, and contribute to overall well-being when included in a balanced diet.

Chickpeas are a good source of minerals like manganese, iron, copper, zinc, and phosphorus, as well as folate and fiber. A ½ cup serving provides 0.9 mg of manganese or 39%DV.

How it helps

Chickpeas contain zinc that contributes to hormonal balance and reproductive health.

4

Zinc

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Take a 15 mg zinc supplement daily, ideally with a meal to enhance absorption.

TYPICAL STARTING DOSE

10 mg

Description

Zinc is an essential mineral found in various foods, including meat, dairy, and nuts. It is crucial for immune function, wound healing, DNA synthesis, and maintaining healthy skin and nails. Zinc supplements are sometimes used to support immune health and manage zinc deficiencies.

Zinc is an essential mineral. Your body needs it to [R, R]:

- Defend against disease
- Protect DNA from damage
- Heal wounds
- Control blood sugar

Some of the best sources of zinc include **shellfish, pork, beef, and beans**. It is also available as a supplement [R].

Adults should get **8-11 mg of zinc** per day [R].

How it helps

Zinc supplements help maintain the body's immune function and facilitate the healing process, which is crucial in preventing diseases. Since Zinc is an essential trace element that our bodies can't produce, consuming recommended supplements can help prevent Zinc deficiency.

5

Oysters

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Consume 3-5 medium-sized oysters, which are about 50-100 grams, two to three times a week. This ensures an adequate intake of essential nutrients like zinc without excessive heavy metal consumption.

Description

Common to coastal areas around the world, oysters are a mullusk that has been harvested for thousands of years. Oysters are a rich source of protein, vitamins (especially B12), zinc, iron, copper, and omega-3 fatty acids.

Oysters are an excellent source of iodine, iron and are loaded with other vitamins and minerals, especially copper and vitamin B12. A 3-ounce serving provides 93 mcg of iodine or 62%DV.

How it helps

Oysters are rich in zinc which is essential for immune system functionality and wound healing. Therefore, consuming oysters can supply your body with the necessary zinc, thus helping prevent zinc deficiency.

6

Pumpkin Seeds

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a handful of pumpkin seeds (about 28 grams) into your diet daily. You can add them to your breakfast cereal, sprinkle them over a salad, blend them into smoothie bowls, or simply eat them as a snack. This practice can be continued indefinitely as part of a healthy dietary pattern.

Description

Pumpkin seeds, also known as pepitas, are the edible seeds of the pumpkin.They are rich in protein, antioxidants, iron, zinc, magnesium, manganese, and phosphorus. The compounds in pumpkin seeds may benefit heart health and immune function.

Pumpkin seeds are rich in arginine, protein, antioxidants, iron, zinc, magnesium, manganese, and phosphorus. Pumpkin seeds contain 54.18 mg of arginine per gram.

How it helps

Pumpkin seeds are high in zinc, a nutrient that helps maintain immune system health, heal wounds, and supports normal growth. Regular consumption can thus provide the necessary zinc your body needs, preventing any deficiencies.

7

Almonds

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a handful of almonds (about 23 kernels) into your daily diet. You can eat them as a snack, add them to your breakfast cereals or yogurt, or include them in salads and other dishes. Do this consistently for ongoing health benefits.

Description

Almonds are a good source of omega-6s, protein and vitamins, making for a great snack food. A 1-ounce serving provides 3700 mg of omega-6.

Almonds are nutritious tree nuts that originate from the Prunus dulcis tree. They are packed with essential nutrients, including healthy fats, fiber, vitamin E, and magnesium, which collectively contribute to heart health, support weight management, and may help regulate blood sugar levels.

How it helps

Almonds contain zinc, which contributes to antioxidant enzyme function.

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

Pork is an excellent source of zinc, a nutrient essential for your immune system and metabolism function. Regular consumption can help maintain adequate zinc levels preventing a deficiency.

9

Sardines

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate two to three servings of sardines into your diet each week. You can eat them grilled, steamed, or straight from the can as part of salads, sandwiches, or as a snack. Each serving should be about 3.5 ounces (100 grams), which is roughly one can of sardines.

Description

Sardines are small, oily fish known for their rich content of omega-3 fatty acids, calcium, B12, and vitamin D. Consuming sardines can support heart health, bone strength, and provide essential nutrients, and they are typically found in coastal waters.

Sardines are a good source of iron, omega-3 fatty acids, and a host of vitamins and minerals including calcium, iron, and vitamin D. A 2-sardine serving provides 2 mg of iron or 11%DV.

How it helps

Sardines are rich in zinc, a mineral that strengthens your immune system and promotes cell growth. Regular consumption can help maintain adequate zinc levels, reducing the risk of zinc deficiency.

10

Crab

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate crab meat into your diet 2-3 times per week, ensuring it is cooked thoroughly to avoid foodborne illness. Crab can be added to salads, pastas, or eaten as a main dish with a side of vegetables.

Description

Crab is a good source of zinc, iron, selenium, glutamine, folate, vitamin B12, niacin, and is lower in mercury than most white fish.

Crab is an excellent source of copper, zinc, iron, selenium, folate, vitamin B12 and niacin, as well as being lower in mercury than most white fish. A 3-ounce serving provides 624 mcg of copper or 69%DV.

How it helps

Crabs are a rich source of zinc, a mineral crucial for maintaining a strong immune system and aiding in DNA synthesis and cell division. Consistently incorporating crabs into your diet can help maintain adequate zinc levels, preventing deficiencies and associated health issues.

11

Beef Spleen

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate beef spleen into your diet by consuming it 2-3 times a week. You can cook it by braising, grilling, or making it into stews. Ensure it's thoroughly cooked before eating.

Description

Beef spleen is an organ meat that provides essential nutrients, including iron and vitamin B12. It can be incorporated into a balanced diet to support overall nutritional well-being.

How it helps

Eating beef spleen provides an excellent source of zinc which is required by the body for many biological functions like processing food and nutrients. Adequate zinc intake can help maintain healthy immune function and promote wound healing, aiding those with zinc deficiency.

Beef spleen is a good source of zinc. It contains 2.8 mg of zinc per 100 grams. Spleens from other animals may have similar nutritional profiles [R].

12

Lentils

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate at least 1/2 cup of cooked lentils into your daily diet. You can add them to salads, soups, or rice dishes for a nutritious boost. Continue this practice as a regular part of your diet to benefit from their high fiber and protein content.

Description

Lentils are a nutritious legume that provides a good source of plant-based protein, fiber, and essential vitamins and minerals.

Lentils are loaded with iron, protein, fiber, vitamins, minerals, like thiamine, phosphorus, zinc, manganese, and copper. A ½ cup serving provides 3 mg of iron or 17%DV.

How it helps

Lentils are rich in Zinc, a nutrient your immune system requires to fight off invading bacteria and viruses. Regular consumption of lentils can help prevent Zinc deficiency, thereby bolstering your immune function.

13

Beef

IMPACT 1 / 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 a rich source of zinc, a vital mineral that supports our immune system and metabolism function. Incorporating beef in moderation into your diet can help maintain your body's zinc levels and prevent zinc deficiency.

14

Beef Heart

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate beef heart into your meals 2-3 times a week. It can be grilled, braised, or stewed. For a balanced diet, accompany it with vegetables and whole grains.

Description

Beef heart is a nutrient-dense organ meat that provides a concentrated source of essential nutrients, including iron, B vitamins, and coenzyme Q10. It is considered a nutritious food choice that can promote heart health and overall well-being when included in a balanced diet.

How it helps

Consuming beef heart can help manage a zinc deficiency because it's a rich source of this essential mineral. Adequate zinc levels are crucial for immune function, wound healing, and cellular metabolism.

Beef heart is a good source of zinc. It contains 2.9 mg of zinc per 100 grams. Hearts from other animals may have similar nutritional profiles [R].

15

Cashews

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a handful of cashews (about 1 to 2 ounces) into your daily diet. You can eat them as a snack, or add them to meals like salads, stir-fries, or oatmeal for added texture and nutritional benefits.

Description

Cashews are a nutrient-rich nut known for their healthy fats, vitamins, and minerals. They are a versatile snack option that can support heart health, provide energy, and contribute to overall well-being.

Cashews are actually seeds and a rich source of omega-6s, and minerals including magnesium, manganese, zinc, iron, and selenium. A 1-ounces serving provides 2300 mg of omega-6.

How it helps

Cashews provide a notable amount of zinc, supporting immune system and healing processes.

16

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 rich in zinc which is essential for supporting the immune system, aiding in protein synthesis, and DNA production. Consuming turkey can help prevent a zinc deficiency, thereby preventing associated conditions such as weakened immunity and slower wound healing.

17

Shrimp

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate shrimp into your diet 2-3 times per week, either grilled, boiled, or baked, aiming for servings of about 3-4 ounces (85-113 grams) per meal. Avoid frying or preparing with high-fat sauces to maintain nutritional benefits.

Description

Shrimp are a type of shellfish known for their low calorie content and high protein levels. They are a good source of essential nutrients like iodine, selenium, and vitamin B12, supporting thyroid function, immune health, and nerve function.

Shrimp are a great source for protein and minerals like selenium, zinc, iron, potassium, magnesium, and phosphorus. A 3-ounce serving provides 40 mcg of selenium or 73%DV.

How it helps

Shrimp is an excellent source of zinc. Consuming shrimp aids in maintaining adequate zinc levels in the body, preventing associated deficiency diseases.

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.