SelfDecode™

Diet & Nutrition

Summary Report

REPORT CATEGORY —

DIET & NUTRITION

Demo Account

Report date: 05 January 2024

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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.

How this works

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

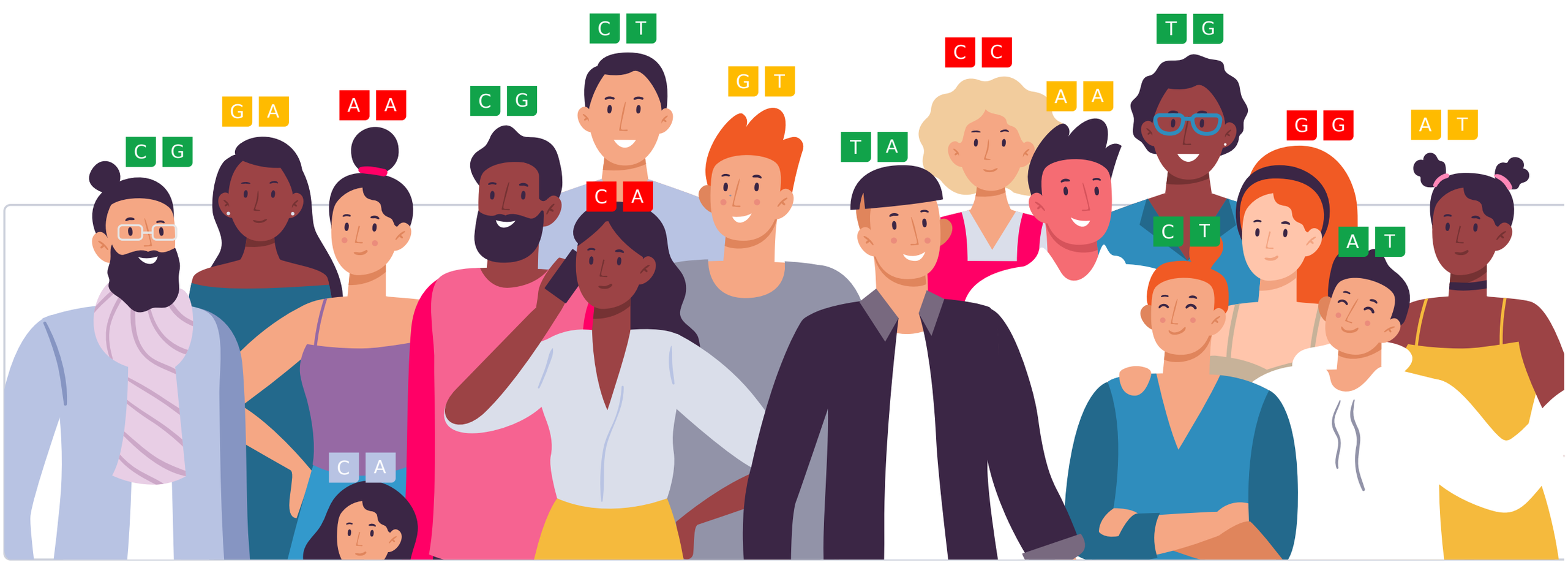
Similarly, our Trait Reports look at how your DNA influences your traits.

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.

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

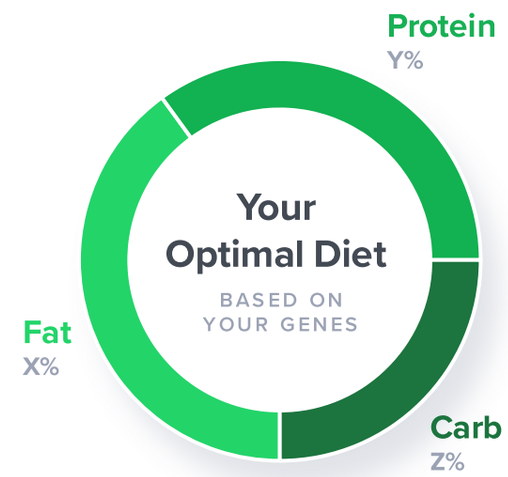
We use artificial intelligence and machine learning to analyze all this information. We then summarize your results as a risk score or display it on a gauge.



Summary

The gauge shows you the ratio of three main macronutrients—fat, carbs, and protein—in your optimal diet.

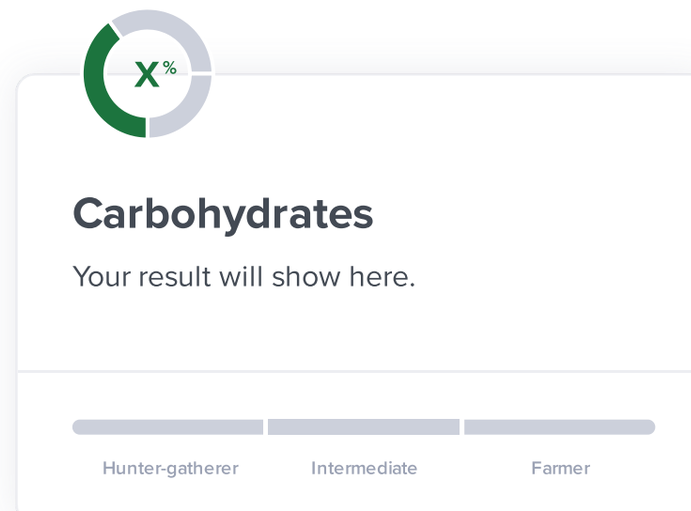
The percentage means how much of your energy needs you should meet with that nutrient. For example, 40% for fat means that 40% of your energy should come from fat. On a typical 2,000-calorie diet, that's 800 calories from fat or about 89 g of fat per day (1 g of fat provides 9 calories).

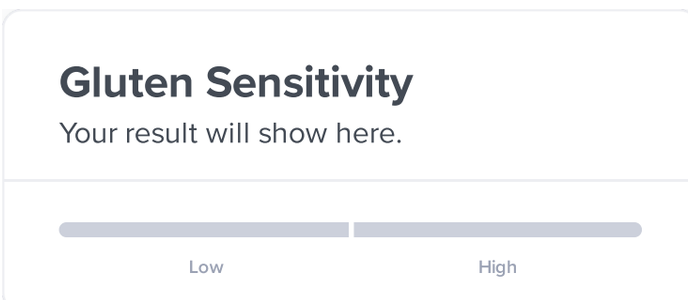


Macronutrients

The bar for each macronutrient tells you how well you respond to it. Each bar has up to three segments, corresponding to a worse, typical, and better response to that macronutrient.

The gauge for each macronutrient displays a percentage of your daily energy needs you should meet with that nutrient. For example, 40% for carbs means that 40% of your energy should come from carbs. On a typical 2,000-calorie diet, that's 800 calories or 200 grams of carbs per day (1 gram of carbs provides 4 calories).



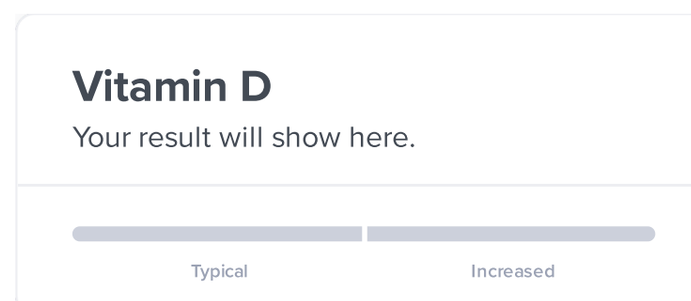


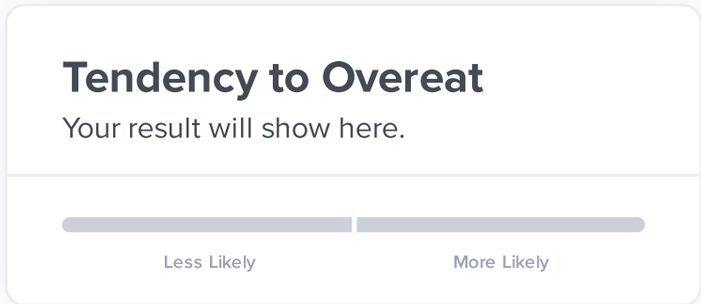
Food sensitivities

For food sensitivities, the bar tells you how likely you are to be sensitive to a particular nutrient or food component. Each bar has two segments, corresponding to lower (typical) and higher sensitivity.

Vitamins, Minerals & Omega-3s

For vitamins, minerals, and omega-3s, the bar tells you about your needs for a particular nutrient. Each bar has two segments, corresponding to typical and increased needs. People with increased needs for a certain nutrient may benefit from getting more of that nutrient from their diets.





Eating Habits

For eating habits, the bar tells you how likely you are to have a particular food habit. Each bar has two segments, corresponding to lower and higher likelihood of having a particular habit.

Some things to keep in mind:

- The scores/gauges use the latest scientific studies. But they are not perfect and will change as the models improve.
- Not everyone with risk variants will develop a health condition.
- Genetics is not the whole story. Your health is most often a combination of genetics, lifestyle, and environmental factors. Great news, as this means that you can often change your lifestyle to lower your risk.
- Results might be more accurate for some ethnic groups than others. This depends on the studies used in each report.
- People without risk variants can also develop health conditions.
- It's important to work with your doctor to better understand your risks. Our reports do not diagnose or treat any health condition. They are not a substitute for medical advice. If you're diagnosed with a certain health condition, follow your doctor's advice.

Summary

Have you ever lost weight, only to gain it right back? Or tried a diet that worked great for your friend but didn't seem to make a difference for you? It isn't your fault! There is no such thing as a one-size-fits-all diet.

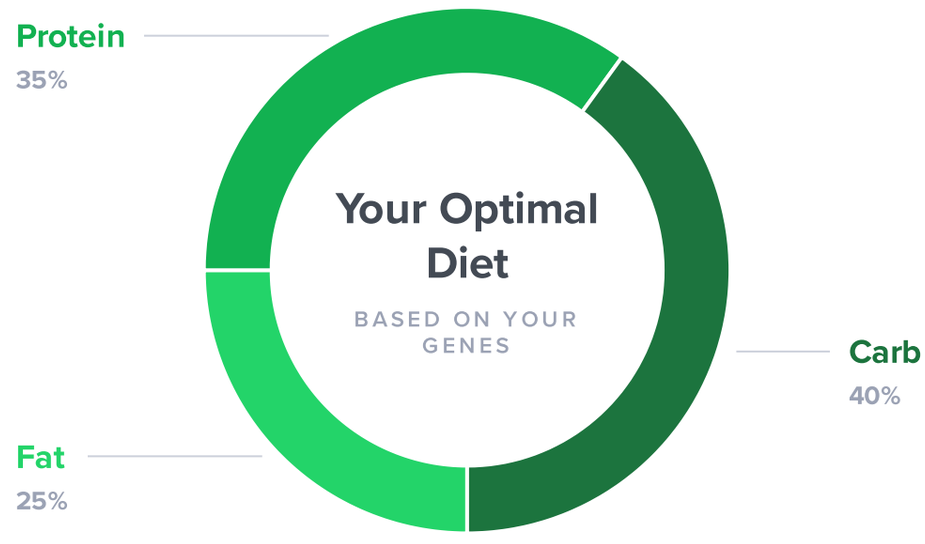
Diets plans often focus on controlling the amount of macronutrients you eat: carbohydrates, fats, and protein. However, they don't account for a major factor: genetics!

Depending on your genes, you may need to adjust your macros based on your ability to process them. Taking this personalized approach to your nutrition is how you can build a diet plan that will help you feel your best!

This report shows you how you process each macronutrient, helping you choose a diet that makes sense for you and your genes! The chart on the right shows your optimal macronutrient ratio. The percentages show you how much of your daily energy intake should come from each macro.

We also check your genes and give you personalized, actionable advice for:

- Choosing the right types of dietary fat
- Getting enough vitamins and minerals
- Addressing food sensitivities
- Improving your eating habits



BMI

23.05 Normal

SUGGESTED CALORIE INTAKE PER DAY

YOUR GOAL			
Intense weight loss 1,200 KCAL PER DAY	Moderate weight loss 1,200 KCAL PER DAY	Maintain weight 1,523 KCAL PER DAY	Weight gain 2,023 KCAL PER DAY

25%

25% of your daily calories
33 grams per day

Dietary Fat

Better Response | Typical Response | Worse Response

35%

35% of your daily calories
Min 105 grams per day *

Dietary Protein

Better Response | Typical Response | Worse response

40%

40% of your daily calories
120 grams per day

Carbohydrates

Better Response | Typical Response | Worse Response

*** FRIENDLY TIP**

If you're struggling to reach your macros, just make sure you prioritize your **protein intake** and consume your minimum amount per day.

Your Optimal Diet

The following is your optimal diet based on your genetic results

Mediterranean

The Mediterranean diet is based on the traditional cuisine from the Mediterranean regions such as Greece, Spain, southern Italy, and southern France. It gained popularity when researchers noticed significantly **lower heart disease rates** and higher life expectancy among Mediterranean folks [R, R].

This diet doesn't actually represent the way people eat in the Mediterranean regions today, given the growing influence of Western dietary habits. A proper Mediterranean diet abounds in [R, R]:

- Vegetables
- Fruits
- Whole grains
- Olive oil

The following foods are eaten in moderation [R, R]:

- Fish and seafood
- Eggs and poultry
- Dairy

Red meat and sweets are eaten sparingly [R, R].

The Mediterranean diet provides a balanced ratio of carbs, fat, and protein. It's one of the healthiest diets due to a diversity of **whole foods** that deliver essential nutrients such as [R]:

- Vitamins and minerals
- Polyphenols and other antioxidants
- Healthy unsaturated fats
- Dietary fiber

Overview of Your Results

Macronutrients

Dietary Protein
Likely better response to dietary protein

Better Response | Typical Response | Worse response

Dietary Fat
Likely worse response to dietary fat

Better Response | Typical Response | Worse Response

Carbohydrates
Carbs don't tend to spike your blood sugar

Better Response | Typical Response | Worse Response

Fats Breakdown

Saturated Fat
Likely worse response to saturated fat

Typical Response | Worse Response

Omega-3
Likely typical need for omega-3s

Typical need | Increased need

Unsaturated Fat
Likely better response to unsaturated fat

Better response | Typical Response

Sensitivities

Gluten Sensitivity (Non-Celiac)
Likely typical gluten sensitivity

Typical | Higher

Food Allergies
More likely to have food allergies

Typical Likelihood | More Likely

Lactose Intolerance
Likely lactose tolerant

Likely Tolerant | Likely Intolerant

Alcohol Sensitivity
Likely typical sensitivity to alcohol

Typical | Higher

Histamine Intolerance
Typical likelihood of histamine intolerance

Typical likelihood | More likely

Caffeine Sensitivity
Likely lower caffeine sensitivity

Lower | Higher

Salt Sensitivity
Likely typical sensitivity to salt

Typical | Higher

Vitamins

Vitamin B6
Likely typical need for vitamin B6

Typical Need | Increased Need

Vitamin E
Likely typical need for vitamin E

Typical Need | Increased Need

Vitamin D
Likely increased need for vitamin D

Typical need | Increased need

Vitamin B12
Likely typical need for vitamin B12

Typical need | Increased need

Folate (Vitamin B9)
Likely typical need for folate

Typical Need | Increased Need

Riboflavin (Vitamin B2)
Likely typical need for riboflavin

Typical need | Increased need

Vitamin C
Likely typical need for vitamin C

Typical need | Increased need

Vitamin A
Likely typical need for vitamin A

Typical Need | Increased Need

Vitamin K
Likely typical vitamin K need

Typical need | Increased need

Minerals

Zinc
Likely typical need for zinc

Typical Need | Increased Need

Magnesium
Likely typical need for magnesium

Typical need | Increased need

Iron
Likely typical need for iron

Typical need | Increased need

Potassium
Likely typical need for potassium

Typical need | Increased need

Selenium
Likely typical need for selenium

Typical Need | Increased Need

Calcium
Likely typical need for calcium

Typical Need | Increased Need

Eating Habits

Tendency to Overeat
Likely higher tendency to overeat

Lower | Higher

Sugar Cravings
More likely to crave sugar

Less likely | More likely

Snacking
More likely to snack

Less Likely | More Likely

Your Results in Details

Macronutrients

Macronutrients are nutrients your body needs in large amounts. Many diet plans focus on controlling the amount of macronutrients you eat: carbohydrates, fats, and protein. Research shows that people have different abilities to process macronutrients. Find out how you process each macronutrient below. Adjusting your macros based on your genes may help improve your weight, blood sugar, cholesterol levels, and more!

35%

Dietary Protein

Likely better response to dietary protein

Better Response | Typical Response | Worse response

25%

Dietary Fat

Likely worse response to dietary fat

Better Response | Typical Response | Worse Response

40%

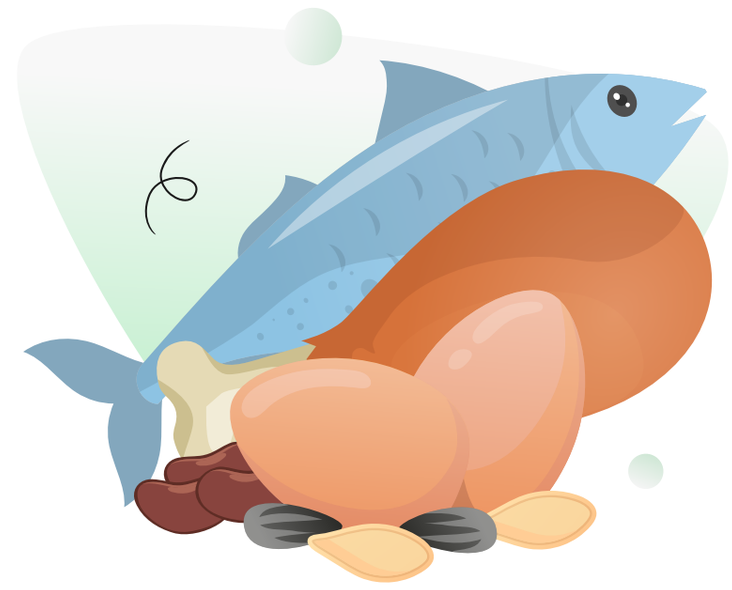
Carbohydrates

Carbs don't tend to spike your blood sugar

Better Response | Typical Response | Worse Response

Dietary Protein

Proteins are essential building blocks that help make muscles, hormones, and more. They can also be used for energy. Healthy protein sources include poultry, fish, eggs, legumes, whole grains, and dairy [R, R].



Your Result

Better Response | Typical Response | Worse response

PERSONALIZED TO YOUR GENES

Based on the genes we looked at, you may have a better response to dietary protein. High-protein diets may have beneficial effects on your weight, metabolism, and cholesterol levels.

You may thrive on a high-protein diet.

Healthy protein food sources

- Eggs
- Nuts (walnuts, almonds, hazelnuts, etc.)
- Seeds (chia seeds, flax seed, pumpkin seeds, etc.)
- Legumes (beans, chickpeas, lentils, peas, etc.)
- Lean meat (chicken, turkey)
- Fish
- Soy products (soybeans, tofu, tempeh, etc.)

Your Gene Table

We tested several genetic variants because they affect how your body uses proteins. Some people carry variants that may cause more weight loss on a high-protein diet [R, R, R, R].

GENE	VARIANT	GENOTYPE
GLP1R	rs6923761	GG
FABP2	rs1799883	TT
CNDP2	rs4891558	TT
FTO	rs1558902	AT
NTN5	rs838147	GA
CNDP1	rs7244647	CT
MTNR1B	rs10830963	CC
ADRB3	rs4994	AA
ST6GAL1	rs1501299	GG
TFAP2B	rs987237	AA
CLOCK	rs3749474	TT
TNF	rs1800629	GG

Dietary Fat

Fats are an important source of energy. Fats are divided into saturated and unsaturated fats. Unsaturated fats, including olive oil and omega-3 fatty acids, are considered healthier [R, R].

Your Result

PERSONALIZED TO YOUR GENES

Based on the gene variants we looked at, you may have a worse response to dietary fat. A high-fat diet is likely to increase your weight and cholesterol levels.

You may thrive on a diet with moderate or low amounts of fat. When eating fat, make sure to choose healthier fats from whole food sources.

Healthy fats food sources

- Avocado
- Olive Oil
- Fatty fish (salmon, sardines, herring, etc.)
- Nuts (walnuts, almonds, hazelnuts, etc.)
- Seeds (chia seeds, flax seed, pumpkin seeds, etc.)

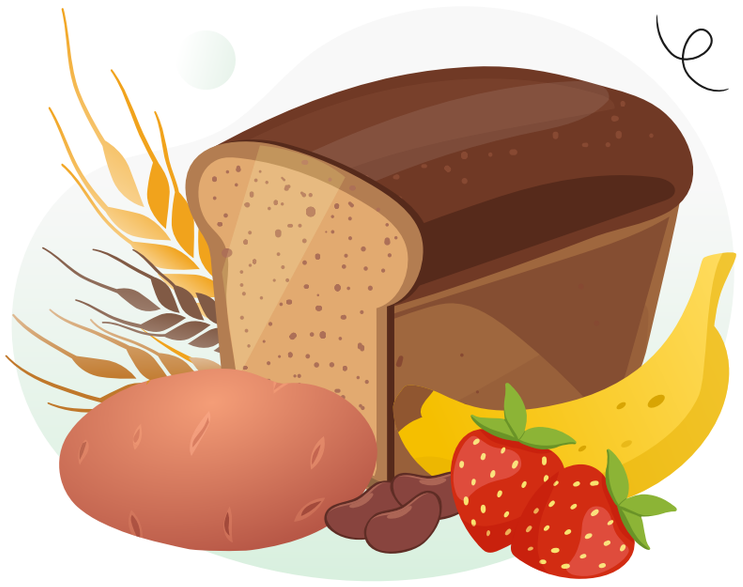
Your Gene Table

We tested several genetic variants because they affect how your body uses fat. Some people carry variants that cause them to gain more weight on high-fat diets [R, R].

GENE	VARIANT	GENOTYPE
FABP2	rs1799883	TT
FCER1G	rs5082	AG
FTO	rs9939609	AT
STAT3	rs8069645	GG
STAT3	rs744166	GG
STAT3	rs2293152	CC
CETP	rs5882	GG
NLRC5	rs708272	GG
CD36	rs1984112	AA
NSMAF	rs3808607	GG
CLOCK	rs1801260	AA
AGT	rs699	AA
APOA1	rs670	CC
ABCA1	rs2230806	CC
APOC1	rs405509	GT
STAT6	rs1799986	CT
AHSG	rs4917	TC
PPARA	rs135549	TC
APOB	rs693	GA
TCF7L2	rs7903146	CC

Carbohydrates

Carbohydrates are the main source of energy in our modern diets. Carbs include simple carbs like candy, honey, and fruit juice, and healthier complex carbs like whole grains and vegetables [R].



Your Result

Better Response | Typical Response | Worse Response

PERSONALIZED TO YOUR GENES

You carry two copies of the variant linked to a better response to carbs—the so-called "farmer" variant. **This means carb-rich foods such as whole grains aren't likely to spike your blood sugar**. People with your variant who eat more whole grains and fiber may be at a lower risk of diabetes [R, R, R].

You may thrive on a high-carb diet. Try focusing on complex carb sources, such as whole grains, legumes, and vegetables. You should still limit your intake of sugars and refined carbs.

Healthy carbs food sources

- Root vegetables (sweet potatoes, carrots, beets, etc.)
- Legumes (beans, chickpeas, lentils, peas, etc.)
- Whole grains (brown rice, wheat, barley, oats, rye, etc.)
- Pseudo-grains (quinoa, amaranth, buckwheat, etc.)
- Fruits and vegetables

Fats Breakdown

Fats in our diet are divided into two major groups: saturated and unsaturated fat. Omega-3 fatty acids are one of the healthiest unsaturated fats. We all have different abilities to break down and use these fats! For some people, adjusting the amount of certain types of dietary fats may help them feel better and experience better health.

Saturated Fat

Likely worse response to saturated fat

Typical Response

Worse Response

Omega-3

Likely typical need for omega-3s

Typical need

Increased need

Unsaturated Fat

Likely better response to unsaturated fat

Better response

Typical Response

Saturated Fat

The main sources of saturated fat in our diet are meat and dairy. Increased intake of saturated fat has been linked to heart disease and high cholesterol [R].

Your Result

Typical Response | Worse Response

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you likely have a worse response to saturated fat. Even moderate amounts of saturated fat may increase your weight and cholesterol levels.

You may benefit from choosing unsaturated over saturated fat. Also, it's important to avoid saturated fat from processed foods and choose healthy whole food sources instead.

Your Gene Table

We tested several genetic variants because they affect how your body uses saturated fat. Some people carry variants that cause them to gain weight when eating more saturated fat [R, R, R].

GENE	VARIANT	GENOTYPE
CETP	rs5882	GG
TLR4	rs5030728	GG
AGT	rs699	AA
APOA1	rs670	CC
ABCA1	rs2230806	CC
FCER1G	rs5082	AG
STAT3	rs8069645	GG
STAT3	rs744166	GG
STAT3	rs2293152	CC
LPL	rs328	CC
LPL	rs13702	TT
LPL	rs1121923	GG
CD36	rs1984112	AA
CLOCK	rs1801260	AA
SIDT2	rs5070	GG
FTO	rs9939609	AT
STAT6	rs1799986	CT
PPARA	rs135549	TC
APOC1	rs405509	GT
APOB	rs693	GA

Omega-3

Omega-3 fatty acids are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Good sources of omega-3s include fatty fish, flaxseed, chia seeds, and walnuts [R, R].

Your Result

Typical need | Increased need

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you likely have a typical need for omega-3s.

Make sure to get enough omega-3s from fish, flaxseed, walnuts, and other sources.

Your Gene Table

We tested several genetic variants because they affect how your body uses omega-3 fatty acids. Some people carry variants that are linked to lower omega-3 levels [R].

GENE	VARIANT	GENOTYPE
WDR70	rs7736605	GG
CITED2	rs10499212	GG
TNFSF10	rs11914753	CC
COL11A1	rs11164689	GG
AHI1	rs2092556	TT
AHI1	rs4896151	CC
AHI1	rs1547079	TT
G2E3	rs7149414	GG
PRR11	rs2291193	GG
FADS2	rs174579	CC
MYOM1	rs949306	GG
/	rs6553050	CT
MAP7	rs13191834	TC
SNX17	rs4665972	CC
PIK3C2A	rs7949405	AC
SYCP2L	rs953413	AG
/	rs2129588	CT
ADRA1A	rs558455	AG
/	rs11235247	GG
MACROD2	rs12481689	AA

Unsaturated Fat

Unsaturated dietary fat is considered healthier than saturated fat. Good sources of unsaturated fats include olive oil, nuts and seeds, fatty fish, and avocados [R, R].

Your Result

Better response | Typical Response

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you likely respond well to unsaturated fats. A diet high in unsaturated fats may have beneficial effects on your weight, cholesterol, and blood sugar levels.

You may thrive on a diet rich in unsaturated fat.

Your Gene Table

We tested several genetic variants because they affect how your body uses unsaturated fat. Some people carry variants linked to a lower weight when consuming unsaturated fat [R, R, R, R, R].

GENE	VARIANT	GENOTYPE
PPARG	rs1801282	CC
FADS2	rs174550	TT
RFC4	rs17300539	GG
FAAH	rs324420	CA
ABTB1	rs782444	TT
TPRA1	rs6787155	CC
PPARA	rs1800206	CC
ABTB1	rs549662	AA
PODXL2	rs3773155	AA
ANKK1	rs1800497	GG
MGLL	rs9877819	GA
PON1	rs662	CT
RFC4	rs266729	CG
IQCJ	rs1962071	CA
ABTB1	rs1466571	GA
ABTB1	rs13076593	CG
ADAM17	rs10495563	AG
ABTB1	rs6776142	CT
UCP3	rs1800849	GG
LEPR	rs1805094	GG

Sensitivities

Have you ever felt that certain foods like wheat or dairy make you feel sick? If so, you're not alone! Many people suffer from food sensitivities, and there's a genetic basis for many of them. For some people with a food sensitivity, changing the diet can make an incredible impact! We tested your genes for some of the most common food sensitivities. Read below to find out more about your results.

Gluten Sensitivity (Non-Celiac)

Likely typical gluten sensitivity

Typical | Higher

Food Allergies

More likely to have food allergies

Typical Likelihood | More Likely

Lactose Intolerance

Likely lactose tolerant

Likely Tolerant | Likely Intolerant

Alcohol Sensitivity

Likely typical sensitivity to alcohol

Typical | Higher

Histamine Intolerance

Typical likelihood of histamine intolerance

Typical likelihood | More likely

Caffeine Sensitivity

Likely lower caffeine sensitivity

Lower | Higher

Salt Sensitivity

Likely typical sensitivity to salt

Typical | Higher

Gluten Sensitivity (Non-Celiac)

Gluten is a protein found in some common grains and their products like wheat, rye, and barley. Common foods with gluten include pasta, flour, crackers, pastries, and bread. In people with gluten sensitivity, gluten consumption causes digestive issues and other adverse effects. They may need to follow a strict gluten-free diet [R, R].

Your Result

Food Allergies

Food allergies are reactions that occur when eating a food that is normally harmless. Reactions can range from annoying to life-threatening. Common reactions include flushing, itching, and stomach upset. Common food allergies are allergies to peanuts, seafood, milk, and eggs [R, R].

Your Result

PERSONALIZED TO YOUR GENES

Based on the variants that we looked at, you are more likely to be sensitive to certain foods, such as peanuts, seafood, milk, and eggs. You may be more likely to have digestive, respiratory, or other symptoms after consuming these foods.

Consider talking to your doctor about further allergy testing if you feel like you have symptoms of food allergies.

Your Gene Table

We tested several genetic variants to determine your risk for food allergies. Up to 80% of differences in people's chances of having food allergies may be due to genetics [R].

GENE	VARIANT	GENOTYPE
KIZ	rs17664036	CC
LRRC32	rs7936434	CC
HLA-DQA2	rs9275596	CT
HLA-DRA	rs7192	GT
LRRC32	rs2212434	TT
TLR1	rs2101521	GG
FHIT	rs142617341	CC
FLG	rs1933064	AA
IQCE	rs1036504	TC
STAT6	rs4759044	CT
GSTP1	rs1871042	CT
MS4A2	rs556917	TA
TMEM243	rs6942407	GA
HLA-DPA1	rs9277630	CC
SPINK6	rs9325071	AA
RBFOX1	rs59325236	GG
LINGO4	rs12123821	CC
HLA-DQA2	rs9271588	TT
SERPINB10	rs12964116	AA
SERPINB10	rs1243064	TT

Lactose Intolerance

Lactose intolerance means a person cannot digest lactose, a sugar found in dairy. To be able to digest lactose, you need an enzyme called lactase. We produce less and less of this enzyme as we age. Lactase production also depends on genetics [R, R].

Your Result

Likely Tolerant

Likely Intolerant

PERSONALIZED TO YOUR GENES

Based on the variant we looked at, your lactase gene may be “turned on.” You are likely to be able to digest milk as an adult. However, lactose is not the only issue. People can be sensitive to proteins in milk, such as casein.

Continue to enjoy dairy in moderation if it’s not causing you digestive issues.

Alcohol Sensitivity

In people who are sensitive to alcohol, alcohol breakdown is inefficient and causes the buildup of a toxic compound called acetaldehyde. Symptoms of alcohol sensitivity include flushing, nausea, headache, and fast heart rate [R, R].

Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may have typical sensitivity to alcohol. This means you are unlikely to experience symptoms after having a single drink.

If you drink alcohol, you should still **consider limiting its intake** to support overall health.

Histamine Intolerance

Histamine-rich foods include certain fish, fermented foods, processed meats, and some fruits and vegetables. Frying food increases its histamine levels. People with histamine intolerance may have digestive issues and other uncomfortable symptoms after eating foods containing histamine [R, R, R].

Your Result

Your Gene Table

We tested several genetic variants because they affect the way your body processes histamine [R, R, R].

GENE	VARIANT	GENOTYPE
AOC1	rs10156191	TC
AOC1	rs2268999	TA
AOC1	rs2052129	TG
AOC1	rs1049793	CG
AOC1	rs1049748	TC
AOC1	rs2071517	GA
AOC1	rs2071514	GA
HNMT	rs1050891	AA
HNMT	rs2071048	CT
HNMT	rs11558538	CC
AOC1	rs1049742	CC

Caffeine Sensitivity

Some people can't break down caffeine well. They may experience increases in blood pressure or unpleasant symptoms after drinking coffee. These symptoms can include feeling jittery, difficulty sleeping, headaches, and muscle twitches [R, R].

Your Result

PERSONALIZED TO YOUR GENES

Based on the variants we looked at, you are likely a fast metabolizer of caffeine. Fast metabolizers break down caffeine more quickly. Thus, caffeine has a weaker effect on them.

Continue to enjoy caffeine in moderation if it's not causing you unpleasant symptoms.

Salt Sensitivity

People who are salt sensitive will experience a bump in blood pressure when they eat salty foods. This happens because their kidneys function a bit differently. It is partially due to genetics, but can also be linked to other factors, such as age, diet, and chronic health conditions [R, R, R].

Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you likely have a typical sensitivity to salt. Salty foods may have a moderate effect on your blood pressure.

Continue to enjoy salt in moderation if you don't have high blood pressure. You should still try to limit your salt intake to one teaspoon per day.

Your Gene Table

We tested several genetic variants because they affect the way your body handles sodium from salt [R].

GENE	VARIANT	GENOTYPE
ACE	rs4343	GG
PRKG1	rs7905063	TT
PRKG1	rs7897633	AA
FGF5	rs16998073	AA
SCNN1G	rs4073930	TT
SCNN1G	rs4073291	AA
SCNN1G	rs7404408	CC
SCNN1G	rs5735	TT
TNFRSF1A	rs11614164	AA
SCNN1A	rs4764586	AC
SCNN1G	rs4299163	CG
BCAT1	rs7961152	CC
POC1B	rs2681472	AA
SLC8A1	rs11893826	GG
MTHFD2	rs10177833	CC
SLC4A4	rs10022637	TT
SCNN1G	rs4499238	TC
SCNN1A	rs3741914	TT

Vitamins

Vitamins are a group of nutrients that your body needs in relatively small amounts to maintain health. Vitamins are essential nutrients, meaning that we can't make them in our bodies in sufficient amounts. Thus, we need to get all the vitamins from our diet. Some people are genetically inclined to need a little more of a certain vitamin than others—that's why we created this section! Read below to learn how your genes may be affecting your vitamin needs.

Vitamin B6

Likely typical need for vitamin B6

Typical Need | Increased Need

Vitamin E

Likely typical need for vitamin E

Typical Need | Increased Need

Vitamin D

Likely increased need for vitamin D

Typical need | Increased need

Vitamin B12

Likely typical need for vitamin B12

Typical need | Increased need

Folate (Vitamin B9)

Likely typical need for folate

Typical Need | Increased Need

Riboflavin (Vitamin B2)

Likely typical need for riboflavin

Typical need | Increased need

Vitamin C

Likely typical need for vitamin C

Typical need | Increased need

Vitamin A

Likely typical need for vitamin A

Typical Need | Increased Need

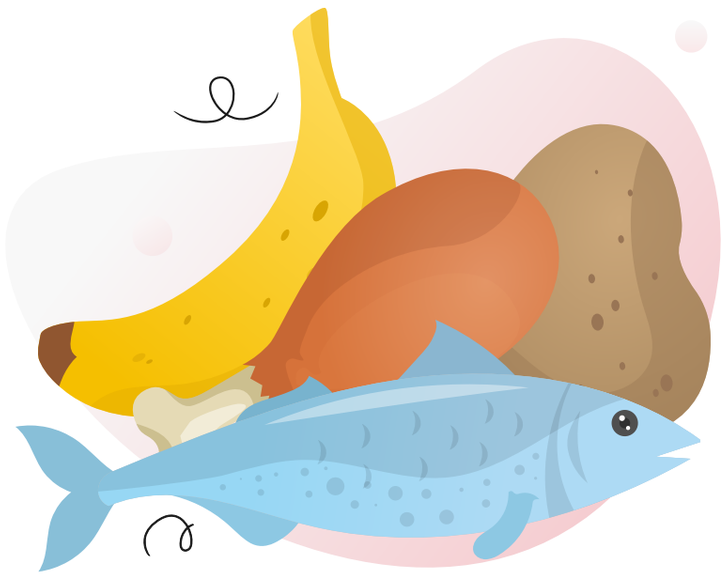
Vitamin K

Likely typical vitamin K need

Typical need | Increased need

Vitamin B6

Vitamin B6, or pyridoxine, is important for nervous and immune system health. It also supports brain development. Vitamin B6 is found in a variety of foods, and deficiency is uncommon [R, R].



Your Result

Typical Need | Increased Need

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may have a typical need for vitamin B6.

Try to aim for the recommended daily amount of vitamin B6. For most adults, that's **1.3 mg** of vitamin B6 per day [R].

Your Gene Table

We tested several genetic variants because they affect your vitamin B6 levels [R, R, R].

GENE	VARIANT	GENOTYPE
NBPF3	rs4654748	CC
NBPF3	rs1697421	TC
ALPL	rs1256341	TC
ALPL	rs1772719	AA
ALPL	rs1256335	AA

Vitamin E

Vitamin E is the name given to a group of antioxidant nutrients. There are eight forms of vitamin E. This vitamin is a crucial antioxidant and helps with immune function [R].

Your Result

Typical Need | Increased Need

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may have a typical need for vitamin E.

Try to aim for the recommended daily amount of vitamin E. For most adults, that's **15 mg** of vitamin E per day [R].

Your Gene Table

We tested several genetic variants because they affect your vitamin E levels [R].

GENE	VARIANT	GENOTYPE
PAFAH1B2	rs12272004	CC
SIDT2	rs964184	CC
SCARB1	rs11057830	GG
CYP4F2	rs2108622	TC

Vitamin D

You get vitamin D by absorbing sunlight through your skin and by eating foods rich in vitamin D. Vitamin D is important for strong bones, mood, immunity, and heart health [R].

Your Result

PERSONALIZED TO YOUR GENES

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

You may want to monitor your vitamin D levels. Make sure to get at least the recommended daily amount of **600 IU** per day. Try to spend more time outside, too! Sunlight exposure helps your body produce vitamin D.

Your Gene Table

We tested several genetic variants related to vitamin D to determine your need for it [R].

GENE	VARIANT	GENOTYPE
GC	rs2282679	GT
GC	rs7041	AC
/	rs558560635	GG
/	rs189918701	GG
/	rs375984409	GG
/	rs201561609	TT
GC	rs11723621	GA
ADH1B	rs1229984	CC
COPB1	rs10832289	AT
PDE3B	rs201501563	CT
RRAS2	rs117206369	TT
COPB1	rs148514005	CC
/	rs561089663	GG
PSMA1	rs577185477	TT
/	rs557657187	GG
COPB1	rs117913124	GG
PDE3B	rs188480917	CC
GC	rs565277381	TT
/	rs567415847	GG
/	rs529640451	CC

Vitamin B12

Vitamin B12, or cobalamin, is a nutrient that helps make energy, support nerve function, build DNA, and form red blood cells. Vitamin B12 is plentiful in animal products like meat, fish, eggs, and dairy. Vegetarians and vegans sometimes have difficulty getting enough vitamin B12 [R, R].

Your Result

Typical need | Increased need

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you likely have a typical need for vitamin B12.

Try to aim for the recommended daily amount of vitamin B12. For most adults, that's **2.4 mcg** of vitamin B12 per day [R].

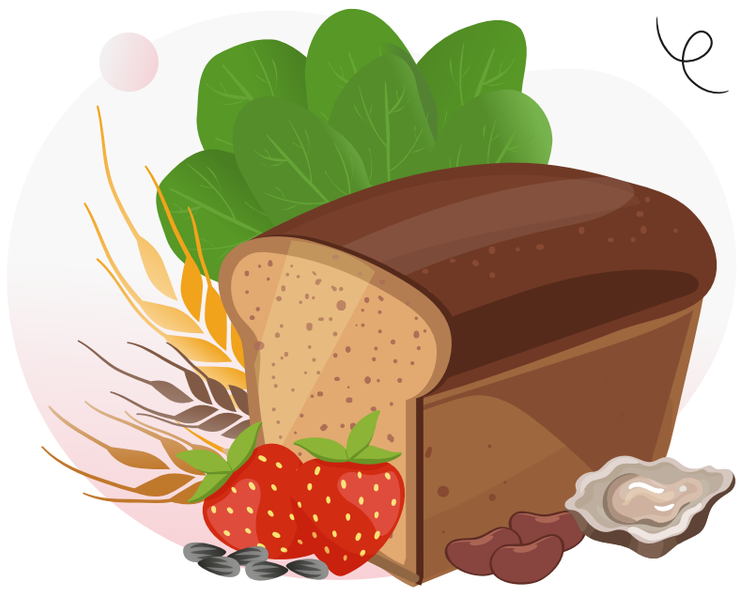
Your Gene Table

We tested several genetic variants related to vitamin B12 to determine your need for it. Some people have variants that make it harder to absorb vitamin B12 from food [R].

GENE	VARIANT	GENOTYPE
FUT2	rs602662	GG
CUBN	rs11254363	AA
FUT5	rs3760775	GG
FAM240C	rs12478296	CC
FUT2	rs516246	CC
/	rs1513859	AA
SLC25A2	rs3749779	AA
FOXK1	rs314590	AA
LAMA4	rs76190642	GG
CHODL	rs34988353	AA
ARAP2	rs142554771	TT
LAMA4	rs144505878	GG
C1QL3	rs79770840	GG
RGS18	rs114973754	CC
ADGRL3	rs545255284	TT
C16ORF82	rs139645308	CC
POU3F3	rs188141458	GG
KCNK2	rs72761546	TT
KCNK2	rs189754522	AA
PCSK2	rs141477158	GG

Folate (Vitamin B9)

Vitamin B9, also known as folate or folic acid, is an essential nutrient. It helps protect DNA from damage, support heart and brain health, and make red blood cells. Folate is vital for a healthy pregnancy [R, R].



Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you likely have a typical need for folate.

Try to get the recommended daily amount of folate. For most adults, that's **400 mcg** of folate per day. You can get enough of this vitamin by eating a variety of fruits and vegetables.

Riboflavin (Vitamin B2)

Riboflavin (vitamin B2) helps our cells create energy. It's also important for growth and development, nervous system function, and skin and eye health [R, R].

Your Result

Typical need | Increased need

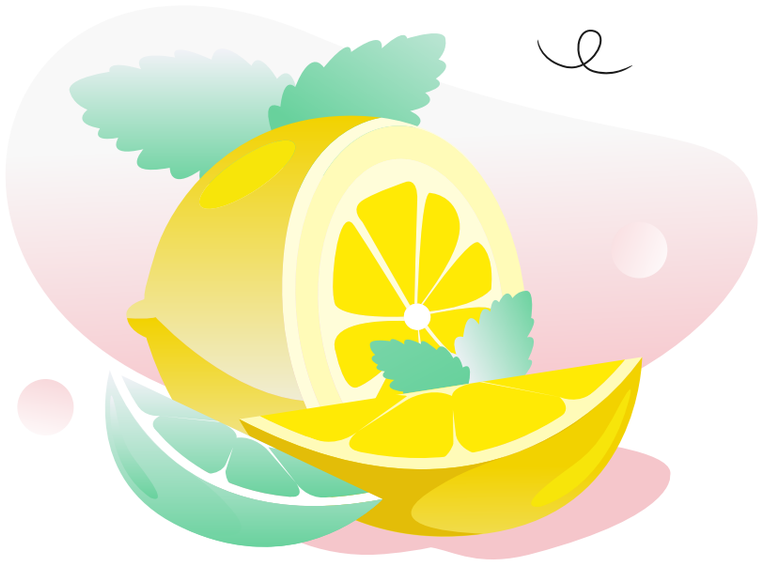
PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you likely have a typical need for riboflavin.

Try to aim for the recommended daily amount of riboflavin. For most adults, that's **1.3 mg** of riboflavin per day [R].

Vitamin C

Vitamin C, or ascorbic acid, is an antioxidant that helps reduce oxidative stress. It also helps make collagen, a protein that builds connective tissue. Vitamin C is important for immune function, heart and lung health, and wound healing [R, R].



Your Result

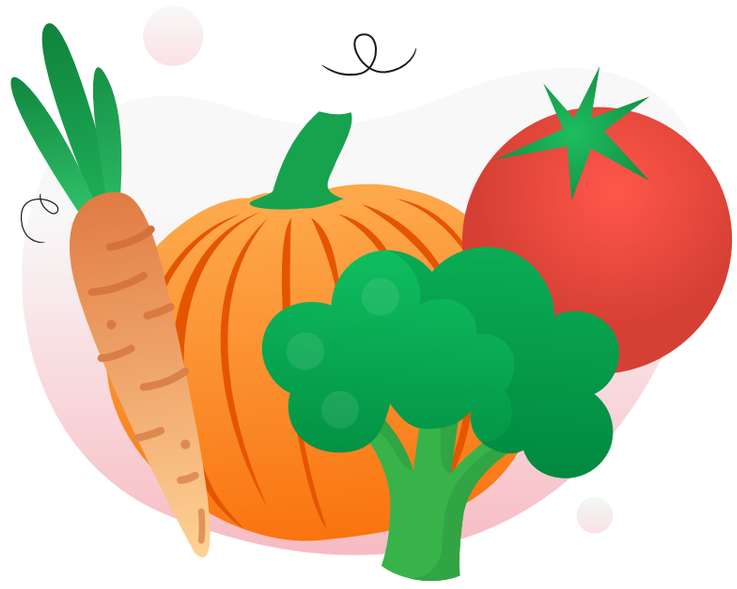
PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may have a typical need for vitamin C.

Try to aim for the recommended daily amount of vitamin C. For most adults, that's **90 mg** of vitamin C per day (125 mg/day for smokers) [R].

Vitamin A

Vitamin A is a nutrient important for vision, immunity, gut health, and skin health. Animal foods like beef liver, fish, and cheese contain active vitamin A. Plant foods like sweet potatoes, pumpkin, and carrots contain provitamin A, which our bodies turn into vitamin A [R, R].



Your Result

Typical Need | Increased Need

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may have a typical need for vitamin A.

Try to aim for the recommended daily amount of vitamin A. For most adults, that's 900 mcg of vitamin A per day [R].

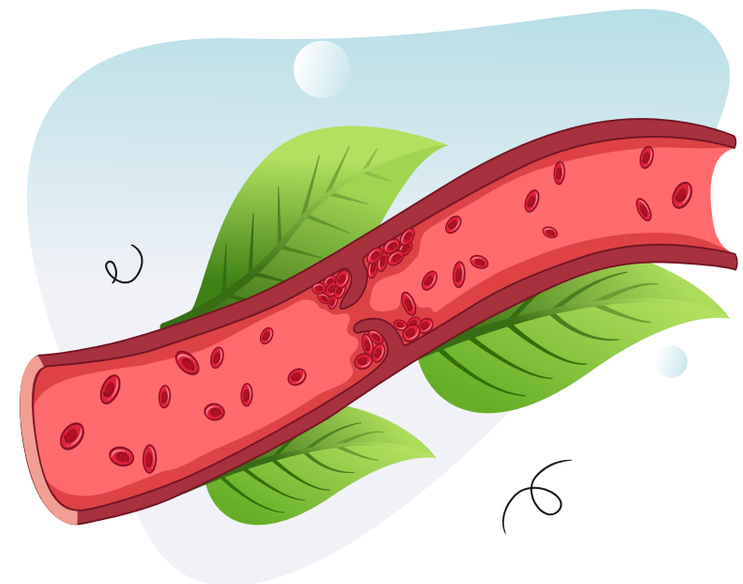
Your Gene Table

We tested several genetic variants because they affect your vitamin A levels [R, R].

GENE	VARIANT	GENOTYPE
BCO1	rs7501331	TC
FFAR4	rs10882272	TC
BCO1	rs12934922	AA

Vitamin K

Vitamin K is essential for blood clotting and bone health. Good sources of vitamin K include leafy greens, soy products, carrots, and pumpkin. People on certain blood thinners (warfarin) should maintain a steady vitamin K intake due to potential interactions [R]



Your Result

PERSONALIZED TO YOUR GENES

Based on the gene variants that we looked at, you may have a typical need for vitamin K. Try to get the recommended daily amount of 120 micrograms. Discuss your vitamin K intake with your doctor if you are taking blood thinners.

Your Gene Table

We tested several gene variants that influence vitamin K levels. They may play a role in vitamin K breakdown, fat metabolism, and more [R, R, R].

GENE	VARIANT	GENOTYPE
/	rs2192574	TT
SIDT2	rs964184	CC
CTNNA2	rs4852146	TT
CYP4F2	rs2108622	TC
CYP4F11	rs12609820	CT
ATG12	rs6862909	GG
CDO1	rs6862071	AA
CDO1	rs4122275	GG
KCNK9	rs4645543	CC
KCNK9	rs2199565	GG
KCNK9	rs7018214	TT

Minerals

Minerals are elements that our bodies need to survive and thrive. Minerals are essential nutrients, which means we must get them from our diet. However, people may have higher needs for certain minerals based on their genes. The four most important minerals that humans need are listed below. Some people may need more of a certain mineral due to genetics. In such cases, getting more of that mineral may help!

Zinc

Likely typical need for zinc

Typical Need | Increased Need

Magnesium

Likely typical need for magnesium

Typical need | Increased need

Iron

Likely typical need for iron

Typical need | Increased need

Potassium

Likely typical need for potassium

Typical need | Increased need

Selenium

Likely typical need for selenium

Typical Need | Increased Need

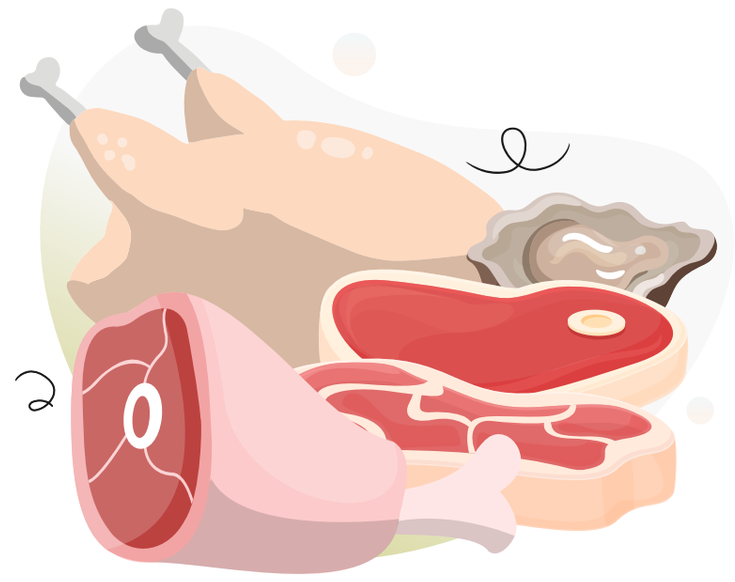
Calcium

Likely typical need for calcium

Typical Need | Increased Need

Zinc

Zinc is an essential mineral. Your body uses it to defend against disease, protect DNA from damage, heal wounds, and control blood sugar. Some of the best sources of zinc include shellfish, pork, beef, and beans [R, R].



Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may have a typical need for zinc.

Try to aim for the recommended daily amount of zinc. For most adults, that's 11 mg of zinc per day [R].

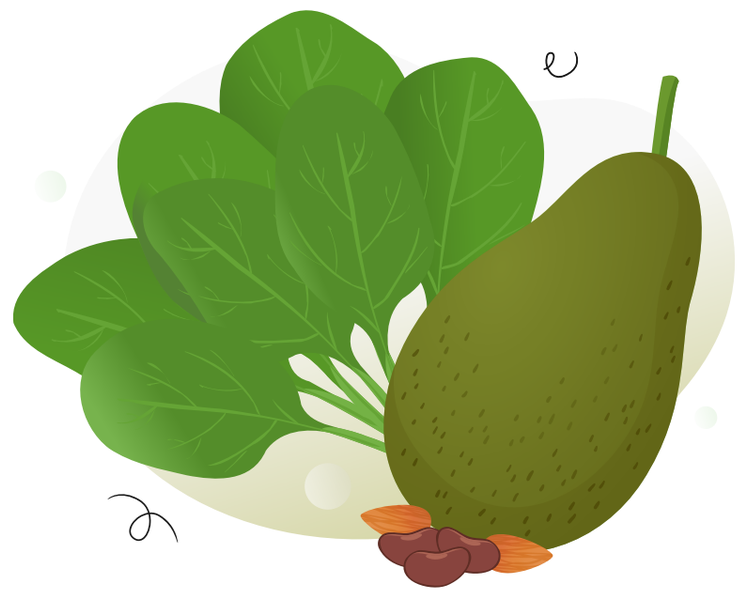
Your Gene Table

We tested several genetic variants because they affect your zinc levels [R, R, R].

GENE	VARIANT	GENOTYPE
CA2	rs1532423	GG
SORBS3	rs4872479	GG
SLC5A6	rs11126936	GG
SCAMP5	rs2120019	TT
NBDY	rs4826508	TT

Magnesium

Magnesium is required for DNA and protein production, muscle and heart function, and immune function. Foods rich in magnesium include leafy greens, nuts, and seeds [R, R, R].



Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may have a typical need for magnesium.

Try to aim for the recommended daily amount of magnesium. For most adults, that's **420 mg** of magnesium per day [R].

Your Gene Table

We tested several genetic variants because they affect your magnesium levels [R, R].

GENE	VARIANT	GENOTYPE
VIPR1	rs11718502	CC
CSTA	rs1801725	GG
FGFR2	rs1219515	GG
ASAP1	rs72728275	CA
CDKL2	rs6838240	TT
MTMR7	rs3764796	TG
PAPSS2	rs1969821	GG
DLK1	rs4905994	TT
THBS3	rs4971100	GG
RTL1	rs915364	AC
ALPK1	rs2074379	GA
PHACTR2	rs2073214	TC
CANT1	rs11891	AG
PAPSS2	rs791888	TG
CDKL2	rs6852678	CT
TRPM6	rs113607577	GG
TRPM6	rs11144134	TT
HDHD2	rs117060920	GG
THBS3	rs4072037	CT
MECOM	rs448378	GG

Iron

Iron is an essential mineral. It helps make hemoglobin, a protein that red blood cells need to carry oxygen throughout the body. In this way, iron supports energy production and fights fatigue [R, R, R].

Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may have a typical need for iron.

Try to aim for the recommended daily amount of iron. That's **8 mg** for men and **18 mg** for women. If you suspect you may be deficient, talk to your doctor [R].

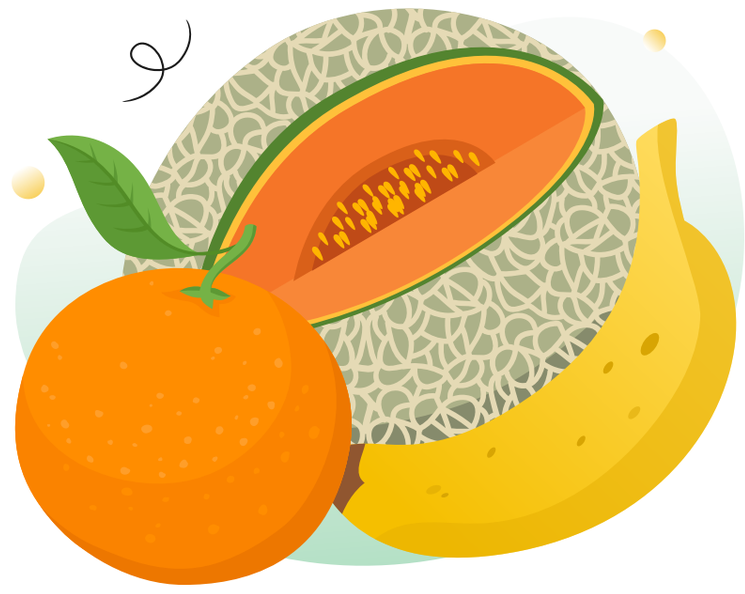
Your Gene Table

We tested several genetic variants related to iron to determine your need for it. Some people have variants that make it harder to absorb iron from food [R].

GENE	VARIANT	GENOTYPE
TMPRSS6	rs228916	TT
TMPRSS6	rs4820268	AG
TMPRSS6	rs855791	GA
IGLV4-60	rs987710	AG
MAPRE1	rs146680938	CC
CDH19	rs181670562	CC
CLDN11	rs113286612	GG
DTWD2	rs2442120	CC
SLC24A2	rs142401741	GG
IRX2	rs62330869	AA
ERG	rs117910189	TT
ZFAT	rs2315834	CC
HFE	rs1799945	CC
SCGN	rs115809796	AA
NOTCH4	rs41270472	AA
TMC5	rs4780797	GA
CNTN5	rs1398168	GA
CARMIL1	rs111722075	CC
GK2	rs12641027	TC
NCKAP5	rs7588567	TT

Potassium

Potassium is an essential mineral. It supports our heart, kidneys, muscles, and more. The recommended potassium intake is **4,700 mg/day.** Foods rich in this mineral include vegetables, potatoes, legumes, and dried fruits [R, R, R].



Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants that we looked at, you are likely predisposed to typical potassium needs. Try to get the recommended daily amount of 4,700 mg.

Your Gene Table

We tested a lot of gene variants that affect potassium levels. They may play a role in potassium transport, kidney function, and more [R, R, R].

GENE	VARIANT	GENOTYPE
RGS7	rs183294212	CC
LURAP1	rs111512785	AA
PRG4	rs141261421	GG
NVL	rs78473436	AA
HMCN1	rs138057810	AA
CASQ2	rs117999962	GG
FMO2	rs184768578	AA
SSBP3	rs182561930	CC
PTPRC	rs141793725	TT
ETV3	rs75349367	GG
OLFM3	rs140864890	AA
GALNT2	rs80258856	CC
BEND5	rs139642127	GG
FYB2	rs143507390	GG
SSBP3	rs117932658	TT
RRAGC	rs144130357	CC
DMBX1	rs78451089	GG
/	rs80302144	CC
/	rs7548119	GG
RGS13	rs12071444	GG

Selenium

Selenium is a mineral that supports reproduction, thyroid health, antioxidant protection, and more. Adults should be getting **55 micrograms** of selenium per day. Good sources include **Brazil nuts,** meat, fish, and eggs [R].

Your Result

PERSONALIZED TO YOUR GENES

Based on the gene variants that we looked at, you likely have a typical need for selenium. Try to get the recommended daily amount of 55 micrograms.

Your Gene Table

We tested several gene variants that influence selenium levels. They may play a role in selenium transport, storage, and metabolism [R, R].

GENE	VARIANT	GENOTYPE
ARSB	rs921943	CC
BHMT	rs7700970	CC
BHMT	rs11960388	TT
AGA	rs1395479	AC
COG1	rs891684	GG

Calcium

Calcium is the main component of your teeth and bones. It's also important for muscle and nerve function. Dairy products are an important source of calcium [R, R, R].

Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you likely have a typical need for calcium.

Try to aim for the recommended daily amount of calcium. For most adults, that's **1000 mg** per day [R].

Your Gene Table

We tested several genetic variants related to calcium to determine your need for it. Some people have variants that make it harder to absorb calcium from food [R, R, R].

GENE	VARIANT	GENOTYPE
PRSS3	rs10814041	CG
AMT	rs34240317	AA
IDH3A	rs2028548	TC
FAM216B	rs9525667	CT
GAL	rs880610	GG
SEM1	rs4448201	CC
HLA-DQA1	rs2071805	CT
CDC42SE1	rs2864700	TT
HBZ	rs10794639	AA
GALNT3	rs10204976	GG
SMOC1	rs3742909	GG
SP7	rs144680237	CT
CPED1	rs3779381	AG
ARL4C	rs12151790	GG
ZBTB40	rs34414754	CA
DOK6	rs17184557	TT
ETS2	rs11088458	GA
CTNNB1	rs389264	CT
CCDC170	rs4869744	TC
CPED1	rs10242100	AG

Eating Habits

You may be surprised to learn that some of the eating habits you have are affected by your genes! Eating is a complex behavior, but scientists have been able to link eating habits with certain genes. Read below to learn more about what your genes may be influencing!

Tendency to Overeat

Likely higher tendency to overeat

Lower | Higher

Sugar Cravings

More likely to crave sugar

Less likely | More likely

Snacking

More likely to snack

Less Likely | More Likely

Tendency To Overeat

Hunger is the body's signal to eat. When we eat, we experience satiety - the feeling of fullness between meals. However, some people tend to overeat and feel hungry more often. Genetics may play a role in this.

Your Result

PERSONALIZED TO YOUR GENES

Based on the variants we looked at, you may be more likely to feel hungry after meals and to overeat. You may also be more likely to eat in the absence of hunger.

Increased physical activity and a Mediterranean-style diet may help counteract the effect of this variant on body weight [R, R, R, R, R, R].

Your Gene Table

We tested one *FTO* gene variant to determine whether or not you have a tendency to overeat. Some people have a variant linked to an increased appetite and higher food intake.

GENE	VARIANT	GENOTYPE
FTO	rs9939609	AT

Sugar Cravings

Do you have a sweet tooth? Or do you find some foods unpleasantly sweet? Differences in the genes that code for our taste receptors may affect our preference for sweets. People who have less sensitive sweet receptors may have a “sweet tooth”. They may prefer sweet foods and eat more of them [R, R].

Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may be more likely to prefer sweets.

You already know that sugar is bad for your health, so do your best to resist your sweet tooth.

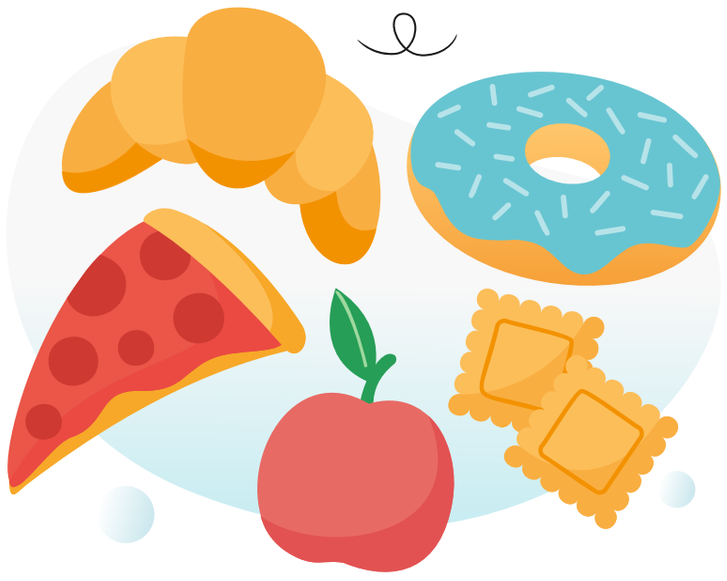
Your Gene Table

We tested several genetic variants to determine how likely you are to have a sweet tooth. People with a sweet tooth may have less sensitive sweet taste receptors on their tongues [R, R, R]!

GENE	VARIANT	GENOTYPE
FUT2	rs838133	AA
/	rs56404116	AG
/	rs13347339	TT
/	rs13182470	CC
SERPINA1	rs11568814	CC
GOLGA8B	rs2433267	AA
CLMP	rs17127163	AA
ORC5	rs10953405	AA
WSCD1	rs35253088	TT
RELN	rs62485870	TT
CST7	rs62215296	GG
NOTCH1	rs710411	AA
/	rs2815675	CC
FSCB	rs537022264	AA
AGMO	rs12699747	TC
ATP10B	rs4552669	AG
ATP10B	rs10037124	TG
SLC2A2	rs5400	GG
ALDH2	rs671	GG
ITGA4	rs13029040	CC

Snacking

Snacking is eating or drinking something between meals. Some people may snack more than others. This may partly be due to genetics. Genes involved with snacking may influence hormones linked to appetite and hunger [R, R, R].



Your Result

PERSONALIZED TO YOUR GENES

Based on the genetic variants we looked at, you may be more likely to snack.

Try to avoid snacks with unhealthy fats and added sugar and salt. Instead, choose snacks higher in protein, fiber, and healthy fats. Try to portion your snack instead of eating it from the package [R, R, R].

Your Gene Table

We tested several genetic variants because they affect your appetite and tendency to snack [R, R, R, R, R, R].

GENE	VARIANT	GENOTYPE
HES6	rs2304672	GG
LEP	rs791607	AA
LEPR	rs2025804	GG
LIN7C	rs925946	TG
MC4R	rs17782313	TT
LRRC4	rs4577902	AA
SH2B1	rs7498665	AA

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.

Selenium	45 mcg/L	63 120 180 250 400	11 Aug 2023
Iron	27 umol/L	10.71 25 33.93	10 Jun 2023
Insulin, Fasting	78 pmol/L	6 36 118 150	10 Jun 2023