



The Personal Genetic Story of

# Brock Lee



## Protect What's Uniquely Yours.

Your 3X4 Health Report contains sensitive genetic and health information that is uniquely and permanently yours. Protecting that data is a responsibility we take seriously, which is why we strongly advise against uploading this report to third-party AI tools such as ChatGPT, Claude or Gemini. Once shared, your data may be processed, stored, or used in ways entirely outside your control, and any interpretations those tools produce cannot be verified for accuracy or safety.

# Better Health Starts With A Deeper Understanding Of You.

You are made up of approximately 30 trillion cells. This is where 3X4 is different, because it first looks at how your genetics impact you at this core, cellular level.

## Health fundamentals start in your cells.

Inside each of your cells, essential processes are constantly working to keep you alive and well. When these processes aren't functioning optimally, it can create ripple effects across your entire body. This is why 3X4 starts upstream, by looking at what's happening inside your cells, before focusing on symptoms. Addressing cellular health first gives your entire system the support it needs to function better, from the inside out.



## A systems approach to health.

Different cells work together to form the systems your body relies on every day, like your cardiovascular, hormonal, and muscle and skeletal systems. Together, your cells and systems form the health categories in this report and inside each category are the pathways that drive it. Pathways are the day-to-day processes your body runs to keep you well, and each one is shaped by a set of genes. 3X4 Health looks at all three layers, so you can see how what's happening at the cellular level shapes your health overall.

## Understanding Impact

"Impact" refers to how big of a role your genetics play in a specific health area. Your genetic results are color-coded by how strongly your genes influence them. Follow the purple to focus where it matters most.

### Very High

The highest genetic impact. These pathways contains the genes that have the greatest impact on your health.

### High

Health areas that are strongly influenced by your genes.

### Medium

Your genes play a smaller role in this pathway.

### Low

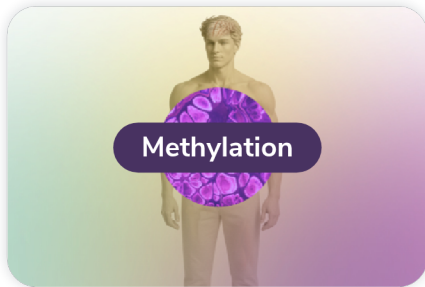
Your genetics don't play a strong role in this pathway.

# Brock's Highest Genetic Impact

These are the three areas where your genes have the greatest impact on your health: Your top cellular impact and your top two system-level impacts. Together, they form the starting point and show you where to focus first.

## Your Top Cellular Impact

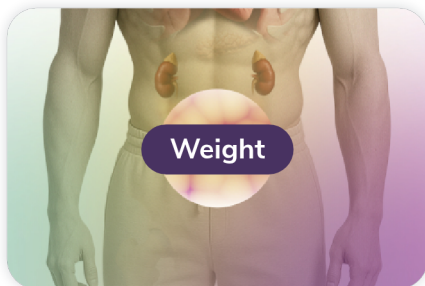
We start with the fundamental building blocks of where it all starts, within your cells.



Methylation works like a dimmer switch, helping your body turn genes, hormones, and brain signals up or down to keep your brain sharp, hormones balanced, and DNA repaired. **Your methylation system needs extra support to function at its best.**

## Your Top Systems Impact

Different cells work together to form systems. These are the systems that are the most impacted by your genetics.



Genetics play a role in how your body stores fat, burns calories, and responds to hunger and fullness cues. **Your genes may make weight management more challenging.**



Your genes impact muscle strength, bone density, and joint flexibility, which play a role in staying strong, stable, and moving with ease. **Your body may need extra support to stay resilient over time.**

# Your Plan, Built From Your DNA

Your plan moves from the inside out, starting with your top cellular and system pathways.



## Summary Plan

These actions are focused on your highest impact areas, building a strong foundation for long-term health.

### Cellular

#### Methylation

Very High

Your cells may have a hard time with methylation, which impacts how efficiently they carry out their functions.

- Eat a variety of vitamin B-rich foods daily, like leafy greens, avocados, or eggs, or consider taking a vitamin B-complex supplement daily.

### Weight

#### Pro-Inflammatory Fat

Very High

Your fat cells may be prone to inflammation, leading to disrupted metabolism and weight management challenges.

- Increase your intake of anti-inflammatory phenolic compounds by adding fresh turmeric, raw ginger, or cinnamon spice to your daily meals.

### Muscle & Skeletal

#### Collagen & Joints

Very High

Your connective tissues may be more vulnerable to strain or injury, especially with age.

- Increase your intake of hyaluronic acid by drinking bone broth or consider taking a high-quality supplement daily.

# Your Plan, Built From Your DNA

Your Cellular Booster strengthens your health foundation, and your System Optimizer turns genetic insights into focused action across the system that matters most to you.



## Cellular Booster

Works at the very foundation of your health, your cells, helping you tackle challenges right at their root.

### Brain

#### Methylation

Very High

- Methylation highly impacts your brain health. Take 3-5 grams of creatine daily, preferably with a meal, to support methylation processes.



## System Optimizer

Designed to work with your genes to help you reach your specific health goal.

### Brain

#### Memory

Very High

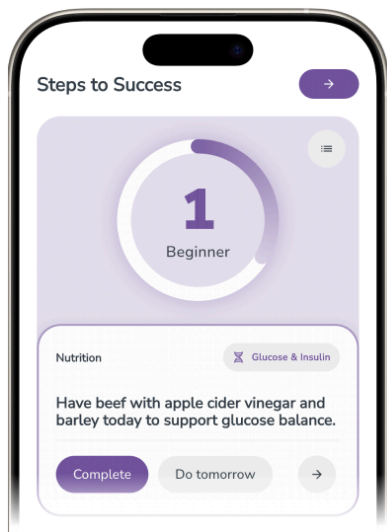
#### Mood & Behavior

High

- Practice a skill-based physical activity (like dance, tai chi, yoga, ball sports, or swimming) for at least 30 minutes, three times a week to support brain plasticity.
- Eat choline-rich foods like eggs, peanuts, or soybeans to support healthy brain function.
- Include daily sources of prebiotics (oats, legumes, and onion) and probiotics from fermented drinks (kefir or kombucha) to support a healthy gut-brain connection.

# The PDF Report Is The Snapshot. The App Is The Journey.

You just read what your genes need. The 3X4 Health app is where your recommendations turn into daily action.



## EVERY MORNING

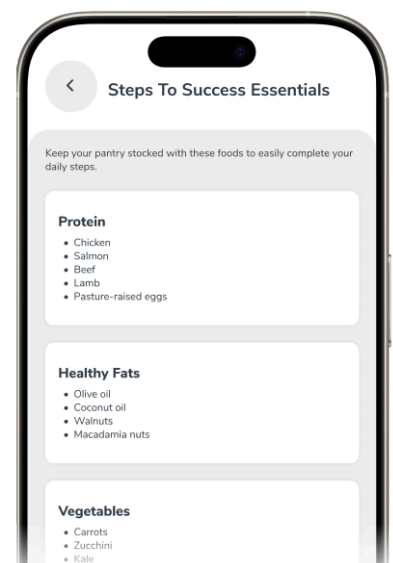
### One personalized step, every day.

A daily action tailored to your genetics, with each completed step adding to your streak. Small wins that build into lasting change.

## EVERY WEEK

### Recipes and weekly essentials grocery list.

Quick recipe ideas matched to your genes and a weekly essentials grocery list, so the healthy choice is already made for you.



## EVERY TIME YOU NEED IT

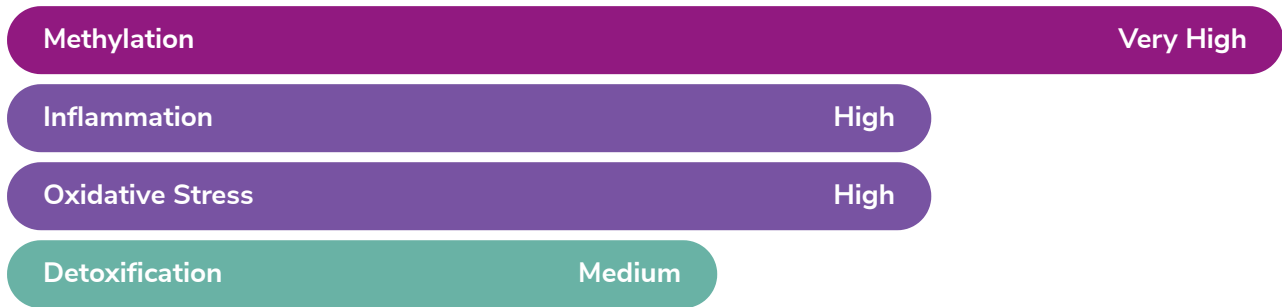
### Your full report, in your pocket.

Every pathway, every recommendation, ready at your fingertips. Whether you're at the grocery store, the gym, or anywhere in between.

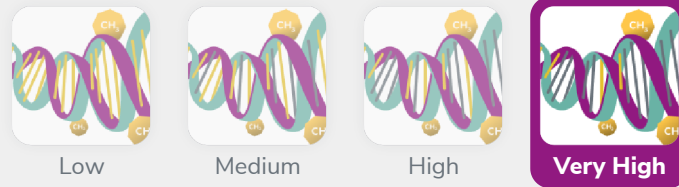
# Pathway Results

Each health category is made up of unique biochemical pathways, the day-to-day processes your cells run to keep you well. You'll see your genetic impact level for each pathway in each category, what it means, and what to pay attention to.

## Cellular



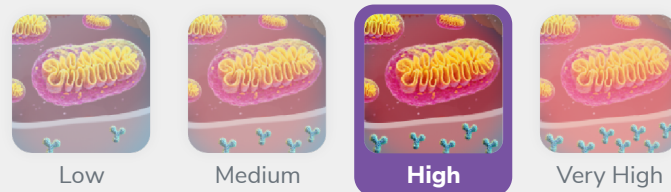
### Methylation



**Your cells may have a hard time with methylation, which impacts how efficiently they carry out their functions.**

Methylation might sound technical, but it's a process happening in your body every second—helping to keep your DNA stable, your hormones balanced, your brain chemistry in check, and your energy steady. When methylation isn't working efficiently, it can throw all of that off, affecting your mood, focus, and how energized you feel each day.

### Inflammation

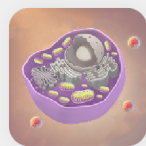


**Your cells may have difficulty managing inflammation, which affects their health and performance.**

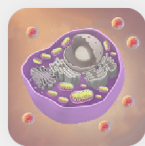
Inflammation is your body's built-in defense system—key to staying balanced and handling threats. But when this response gets out of sync, it can turn into chronic inflammation, increasing cellular damage, and wearing on your health over time.

# Pathway Results

## Oxidative Stress



Low



Medium



High



Very High

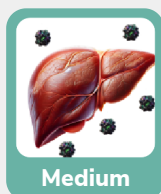
**Your cells may have difficulty controlling oxidative stress, which increases the chance of cellular damage.**

Oxidative stress occurs when free radicals—harmful byproducts created during normal cell activity—build up faster than your body can handle. When your antioxidant defenses fall behind, these free radicals can damage your cells, tissues, and organs. Over time, this wear and tear can speed up aging and impact your overall health.

## Detoxification



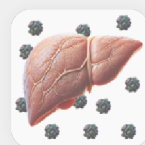
Low



Medium



High



Very High

**Your cells generally manage detox well, though they may need extra support during times of high demand.**

Detoxification is your body's clean-up crew, with the liver doing most of the heavy lifting. It works to break down harmful substances, repair cellular damage, and keep your system in balance. Based on your genes, this process might slow down when your cells are under high toxin loads. That can lead to a buildup of toxins, which may put extra strain on your body and affect how you feel.

# Pathway Results

## Brain

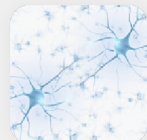
Memory

Very High

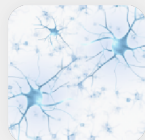
Mood & Behavior

High

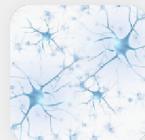
### Memory



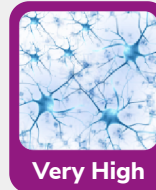
Low



Medium



High

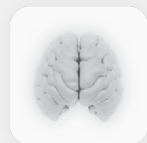


Very High

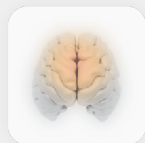
**You may be sensitive to age-related shifts in memory and cognitive performance.**

Genes influence how your brain ages by affecting its structure, circulation, and the balance of chemicals tied to memory and learning. You may be more susceptible to changes in brain health over time—such as shifts in memory and mental clarity.

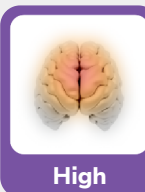
### Mood & Behavior



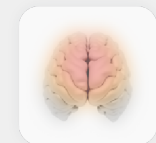
Low



Medium



High



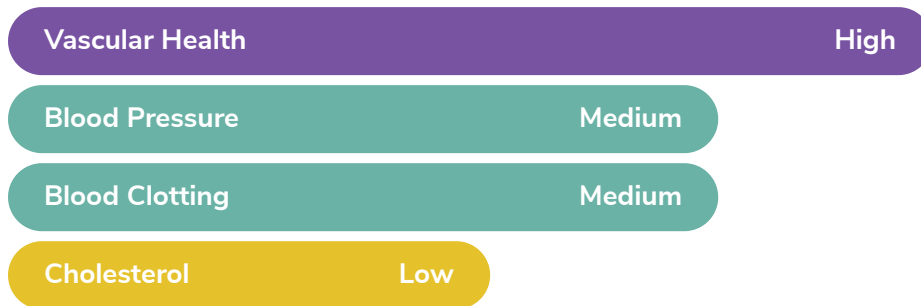
Very High

**You may be more prone to mood fluctuations, especially when faced with emotional or physical stressors.**

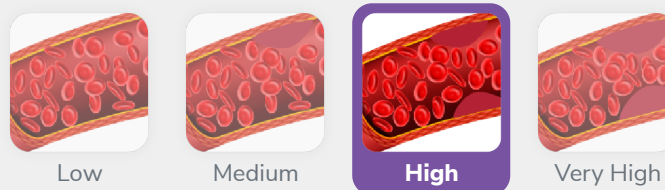
Your genes influence how your body processes key brain chemicals like serotonin and dopamine. Based on your results, your body may be less effective at balancing these chemicals, which can make it harder to maintain emotional balance—especially during stressful or emotionally demanding times.

# Pathway Results

## Heart & Vascular



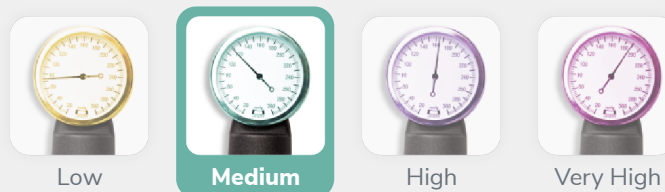
### Vascular Health



**You may be more sensitive to factors that weaken blood vessels, impacting long-term cardiovascular health.**

Your genes help determine the strength and flexibility of your arteries and veins. In your case, there may be a reduced ability to maintain blood vessel integrity, which could influence blood flow and impact cardiovascular health as you age.

### Blood Pressure

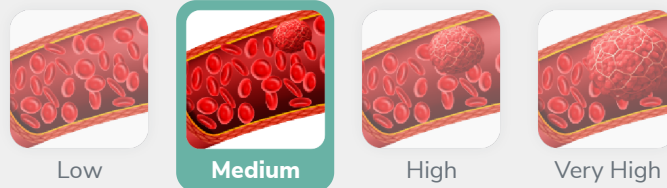


**Your body likely regulates blood pressure well, but this may be disrupted when the body is under heavy strain.**

Genes play a key role in how your body manages blood pressure, shaping blood vessel function, fluid balance, and heart signaling. While your body typically regulates this well, ongoing stress, lack of movement, or poor sleep can throw off that balance—gradually affecting your heart health if not addressed.

# Pathway Results

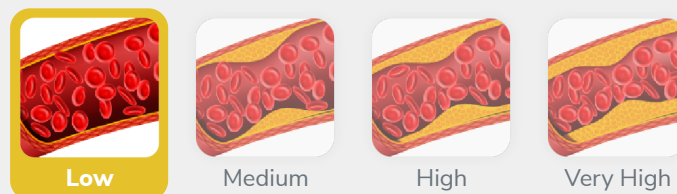
## Blood Clotting



**Your clotting response is likely well-regulated but may be more reactive when the body is under strain.**

Blood clotting is an essential process that helps protect you from excessive bleeding. Your genes generally support healthy regulation, but things like a poor diet, inactivity, or underlying health issues can throw that balance off. That's why sticking to healthy habits is especially important for keeping this system running smoothly.

## Cholesterol



**Your body likely processes cholesterol efficiently, supporting balanced levels and heart health.**

Cholesterol metabolism—how your body handles fats—is key to hormone production and maintaining healthy cells. Your genes support efficient cholesterol processing, which helps promote strong cardiovascular health, particularly when combined with a balanced diet and regular physical activity.

# Pathway Results

## Weight



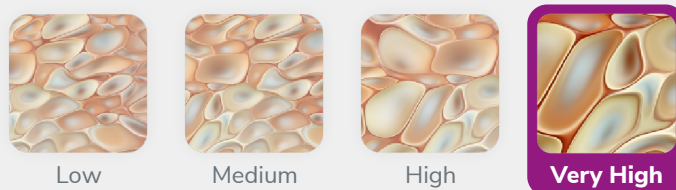
### Pro-Inflammatory Fat



**Your fat cells may be prone to inflammation, leading to disrupted metabolism and weight management challenges.**

Inflammation in your fat cells can make it tough for your body to access stored energy. When combined with factors like a poor diet, lack of sleep, or ongoing stress, this inflammation can increase—making it even more challenging to manage your weight effectively.

### Fat Storage

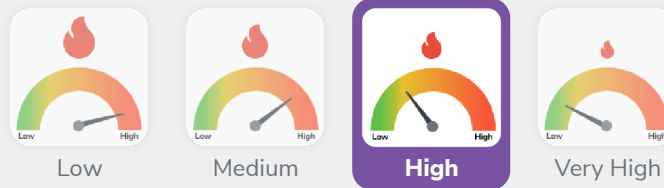


**Your genes favor fat storage, increasing the likelihood of weight gain even with moderate calorie intake.**

Your genes play a key role in how your body forms and stores fat through a process called adipogenesis. A stronger genetic drive for this can make fat accumulation and metabolic issues more likely over time.

# Pathway Results

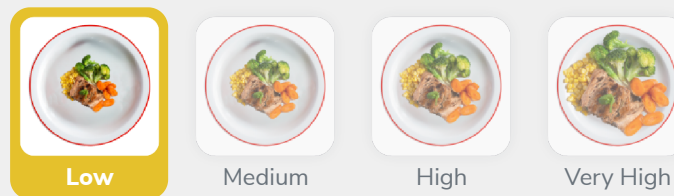
## Energy Expenditure



**Your resting metabolism may be on the lower side, which can make it easier to gain weight without careful management.**

Your body naturally uses less energy for key functions like breathing, circulation, and cell maintenance, which might make it a bit harder to maintain a healthy body composition.

## Appetite



**Your body regulates hunger and fullness signals effectively, helping you stay in tune with your appetite.**

This natural advantage can make it easier to manage your eating habits and maintain a healthy weight.

# Pathway Results

## Hormones

Hormone Balance

Medium

### Hormone Balance



Low



Medium



High



Very High

**Your hormones are likely well-regulated, though they may be more sensitive to stress or lifestyle shifts.**

Your body generally does a good job regulating hormones, but it may be more sensitive to internal or external stressors that can throw things off balance. Staying consistent with healthy daily habits can help keep your hormones steady and support your overall well-being.

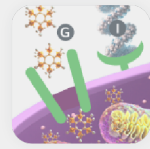
# Pathway Results

## Blood Sugar Regulation

Glucose & Insulin

Very High

### Glucose & Insulin



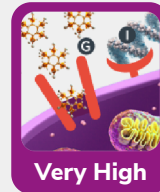
Low



Medium



High



Very High

**You are more susceptible to imbalances in glucose and insulin regulation, influencing your metabolic health over time.**

Maintaining a healthy balance between glucose and insulin is key to protecting your cells, organs, and overall system function. Your genes can make this regulation more challenging, which may affect your energy, focus, and ability to manage weight.

# Pathway Results

## Muscle & Skeletal

Collagen & Joints

Very High

Bone Health

High

Muscle Health

High

### Collagen & Joints



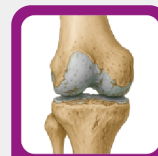
Low



Medium



High



Very High

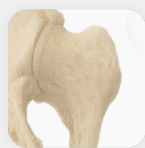
**Your connective tissues may be more vulnerable to strain or injury, especially with age.**

Your genetic profile indicates that your tendons and ligaments may be more vulnerable to strain, reduced flexibility, or slower recovery. As a result, your tissues might not handle physical stress as efficiently—especially over time—which can increase the likelihood of discomfort or limited mobility over time.

### Bone Health



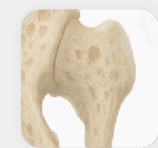
Low



Medium



High



Very High

**You may be more sensitive to bone loss over time, affecting strength and stability.**

Your genes indicate that your bones may be more prone to reduced density or structural weakness over time. This means you're more sensitive to changes like aging, hormonal shifts, or inactivity, which can gradually affect bone health. Being aware of this can help you better protect your strength and stability over the long term.

# Pathway Results

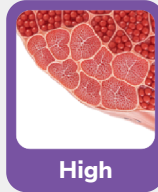
## Muscle Health



Low



Medium



High



Very High

**You may be more likely to experience muscle strain or slower muscle recovery, especially with age.**

Your genetics suggest lower structural integrity, less efficient blood flow, and slower muscle repair, making you more prone to strain—particularly as you age. This can raise the likelihood of injury and gradually impact your mobility if not carefully managed.

# Pathway Results

## Sensitivities

Salt	Medium
Histamine Overload	Medium
Caffeine	Low
Gluten	Low
Iron Overload	Low

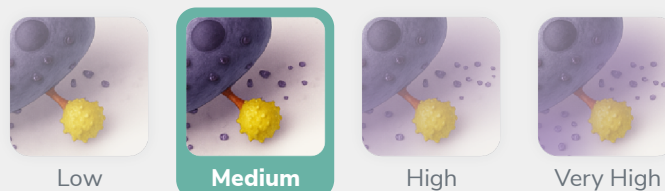
### Salt



**You may have a mild sensitivity to salt, which may affect your blood pressure over time.**

Your body generally manages sodium effectively, though higher intake over time may still have an impact. Being mindful of your salt consumption can help maintain steady blood pressure and support long-term heart health.

### Histamine Overload

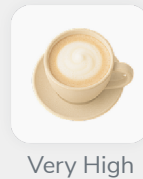
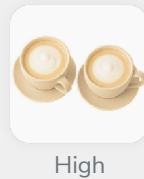
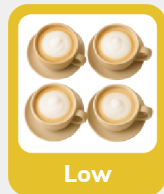


**You may have a moderate tendency to accumulate histamine.**

Histamine is part of your body's immune response to triggers like allergens, injury, or toxins. While you typically manage it well, high exposure can make it harder for your body to break it down, leading to mild symptoms like headaches or skin irritation. Including histamine-lowering foods like basil, oregano, or mango—and minimizing environmental triggers—may help keep levels in check.

# Pathway Results

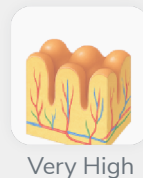
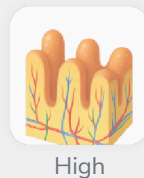
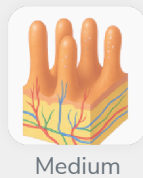
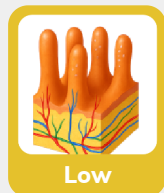
## Caffeine



**You are a fast metabolizer of caffeine.**

Your genes are associated with quick caffeine breakdown, which means you're less likely to experience side effects like jitters or spikes in blood pressure. Instead, you may enjoy more of the benefits—like increased energy, sharper focus, and better performance—and are more likely to tolerate moderate coffee intake without issues.

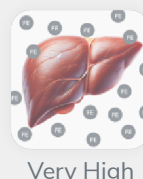
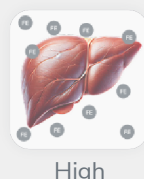
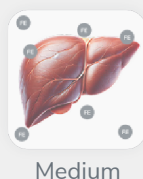
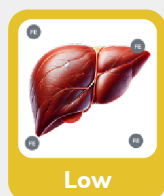
## Gluten



**You have a low likelihood of developing gluten-related gut conditions.**

However, some individuals may still react poorly to gluten or other food components that can impact gut health. If you notice digestive issues like bloating, discomfort, or changes in bowel habits, it's a good idea to speak with a qualified practitioner to explore other possible causes of gut inflammation or imbalance.

## Iron Overload

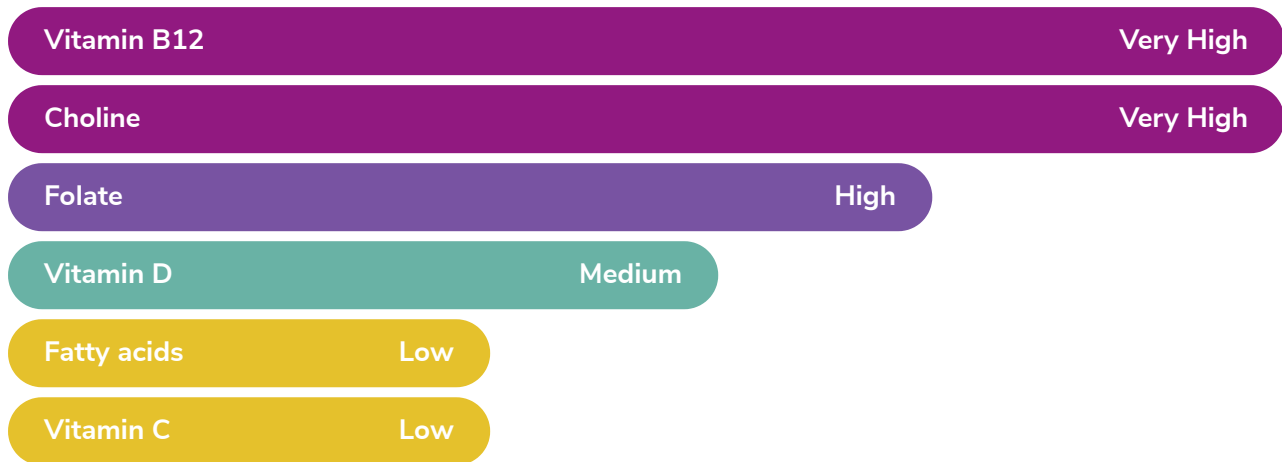


**You do not have an increased genetic tendency for iron overload.**

Your body typically regulates iron well and is less likely to store it in excess. This lowers your chances of iron overload, but it's still important to keep your intake balanced to support overall health.

# Pathway Results

## Nutrients



### Vitamin B12



**Your genes may significantly impact your ability to absorb and transport vitamin B12.**

This may lead to a much higher demand for this essential nutrient. It is strongly advised to include B12-rich animal-based foods regularly and consider ongoing supplementation to maintain adequate levels. Vitamin B12 is critical for red blood cell production, neurological function, and DNA synthesis.

### Choline

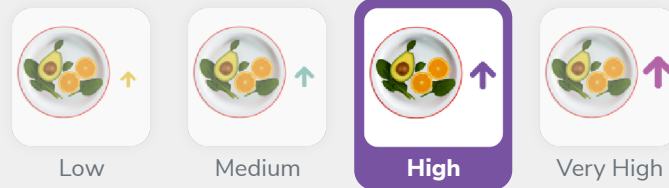


**You may have a significantly increased demand for dietary choline.**

Prioritize dietary choline by including foods such as eggs and peanuts, or consider supplementation. Choline regulates cellular health, memory, mood, energy production, DNA health, and also plays a valuable role in pregnancy and menopause.

# Pathway Results

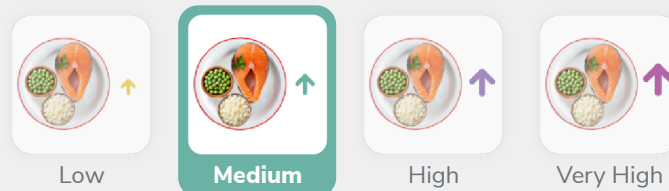
## Folate



**Your body likely has a high demand for dietary folate.**

To support your folate levels, make sure to include dark green leafy vegetables and beans in your daily diet, or consider supplementation. Folate is essential for building tissues, maintaining brain chemicals and blood cells, and ensuring DNA health.

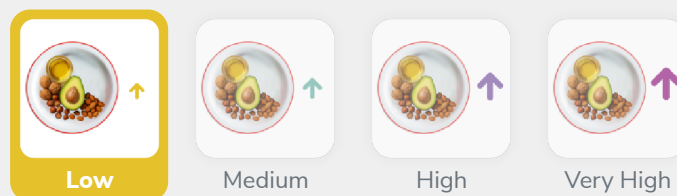
## Vitamin D



**You may have an increased vitamin D requirement.**

To support your vitamin D levels, ensure you get enough sunlight exposure, include foods rich in vitamin D in your diet, and consider taking a vitamin D3 supplement if necessary. This vital nutrient plays a crucial role in many essential processes involved in heart-, bone-, and brain health.

## Fatty Acids



**You metabolize fatty acids efficiently.**

To support long-term health, prioritize healthy fats in your diet (olive oil, nuts, seeds, and oily fish) and limit unhealthy ones like saturated and trans fats. Fatty acids play a vital role in the body, especially in maintaining the structure and function of cell membranes.

# Pathway Results

## Vitamin C



**You likely do not have an increased demand for vitamin C.**

However, including vitamin C-rich foods is still essential for maintaining connective tissue, supporting immune health, and helping to remove toxins.

# Genes By Pathway

Your gene results are grouped by the pathway each one influences. For every gene, you'll see its name, its variant (think of this as a GPS coordinate for your genome), and your genotype (your unique result at that location). Color shows impact: purple to yellow indicate very high to low, light gray means no impact, and dark gray flags a protective result.

## Cellular

Methylation <span style="float: right;">Very High</span>			Inflammation <span style="float: right;">High</span>		
Gene Name	Variant	Genotype	Gene Name	Variant	Genotype
MTR	2756 A>G	GG	IL-1	+/-	+
MTHFR	677 C>T	CT	CRP	2147 G>A	GG
COMT	Val158Met G>A	GA	ENOS	Glu298Asp G>T	TT
TCN2	776 C>G	GG	CYP1B1	Leu432Val C>G	GG
MTHFR	1298 A>C	AC	MNSOD	Val16Ala T>C	TT
MTRR	66 A>G	AG	HNMT	Thr105Ile C>T	CT
MTHFD1	1958 G>A	GA	SIRT1	994 T>C	TT
NQO1	Pro187Ser C>T	CT	IL-6R	Asp358Ala A>C	AC
PEMT	-744 G>C	GC	TNFA	-308 G>A	GA
CBS	699 C>T	CT	HO-1	-413 A>T	AT
NBPF3	T>C	TC	FADS1	592 G>T	GT
BHMT	Arg239Glu G>A	GA	APOE	E2/E3/E4	E3/E3
CHDH	T>G	TT	CYP1A1	Ile462Val A>G	AA
OGG1	Ser326Cys C>G	CC	DAO	His645Asp C>G	CC
			FOXO3	G>T	GT
			FUT2	Trp153Ter G>A	GA
			HLA	DQ 2.2/2.5/8	DQ2.2/DQ2.2
			IL-6	-174 G>C	GG
			PPARA	89204 G>C	GG
			SLC22A5	G>A	GA
			TIMP4	-55 T>C	CT
			TNFA	-238 G>A	GG

# Genes By Pathway

## Cellular

Oxidative Stress		High
Gene Name	Variant	Genotype
MNSOD	Val16Ala T>C	TT
PPARGC1A	Gly482Ser G>A	GA
GSTM1	INS/DEL	DEL
ENOS	Glu298Asp G>T	TT
PPARG	Pro12Ala C>G	CC
NQO1	Pro187Ser C>T	CT
GPX1	Pro198Leu C>T	CT
HO-1	-413 A>T	AT
TNFA	-308 G>A	GA
PON1	Gln192Arg A>G	AG
CAT	-262 C>T	CC
ALDH2	Glu504Lys G>A	GG
APOE	E2/E3/E4	E3/E3
GSTO2	Asn142Asp A>G	AA
GSTP1	Ile105Val A>G	AA
GSTT1	INS/DEL	INS
HFE	C282Y/H63D	CC/HH
OGG1	Ser326Cys C>G	CC
UCP1	-3826 A>G	AA
UCP2	-866 G>A	GG
UCP3	-55 C>T	CC

Detoxification		Medium
Gene Name	Variant	Genotype
GSTM1	INS/DEL	DEL
NAT2	R//S	Slow
CYP1B1	Leu432Val C>G	GG
COMT	Val158Met G>A	GA
MNSOD	Val16Ala T>C	TT
NQO1	Pro187Ser C>T	CT
MTHFR	677 C>T	CT
CYP17A1	34 T>C	TC
PON1	Gln192Arg A>G	AG
CYP2C9	Arg144Cys C>T	CT
ALDH2	Glu504Lys G>A	GG
CYP1A1	Ile462Val A>G	AA
CYP1A2	-163 A>C	AA
CYP1B1	Asn453Ser A>G	AA
CYP2C19	*1/*2/*17	*1/*1
CYP2C9	Ile359Leu A>C	AA
CYP2D6	*1/*3/*10	*1/*1
CYP3A4	-392 A>G	AA
EPHX1	Tyr113His T>C	TT
GSTO2	Asn142Asp A>G	AA
GSTP1	Ala114Val C>T	CC
GSTP1	Ile105Val A>G	AA
GSTT1	INS/DEL	INS
NAT1	Arg187Gln G>A	GG
SULT1A1	Arg213His G>A	GG

# Genes By Pathway

## Brain

Memory		Very High
Gene Name	Variant	Genotype
MNSOD	Val16Ala T>C	TT
ENOS	Glu298Asp G>T	TT
MTHFR	677 C>T	CT
MTR	2756 A>G	GG
MTHFR	1298 A>C	AC
NQO1	Pro187Ser C>T	CT
BDNF	Val66Met G>A	GA
IL-6R	Asp358Ala A>C	AC
<b>TOMM40</b>	<b>A&gt;G</b>	<b>AG</b>
APOE	E2/E3/E4	E3/E3
COMT	Val158Met G>A	GA

Mood & Behavior		High
Gene Name	Variant	Genotype
5HT2A	-1438 G>A	AA
MAOA	Arg297Arg G>T	TT
DRD3	Ser9Gly C>T	CT
DRD1	-48 G>A	GA
DRD4	-521 C>T	TT
MTHFR	677 C>T	CT
GAD1	83-218C>T	TT
COMT	Val158Met G>A	GA
MTR	2756 A>G	GG
MTHFR	1298 A>C	AC
BDNF	Val66Met G>A	GA
OXTR	A>G	AG
AKT1	G1172+23A T>C	TC
5HT2A	102 C>T	TT
5HT2A	His452Tyr C>T	CC
ANK3	A>G	AA
ANK3	C>T	CC
ANKK1/DRD2	TaqIA C>T	CC
CACNA1C	G>A	GG
CHRNA5	Asp398Asn G>A	GG
CHRNA5	C>T	CC
DRD1	-94 G>A	GG
FAAH	Pro129Thr C>A	CC
GABRA2	Lys132Lys A>G	AA
HTR1A	-1019 C>G	CC
OPRM1	Asn40Asp A>G	AA

# Genes By Pathway

## Heart & Vascular

Vascular Health		High
Gene Name	Variant	Genotype
ENOS	Glu298Asp G>T	TT
CRP	2147 G>A	GG
TOMM40	A>G	AG
MTHFR	1298 A>C	AC
MTHFR	677 C>T	CT
AGT	Met235Thr A>G	AG
LPL	Ser474Ter C>G	CG
HO-1	-413 A>T	AT
CETP	Taq1B G>A	GA
ACE	Ins/Del	II
ALDH2	Glu504Lys G>A	GG
APOA5	-1131 T>C	TT
APOE	E2/E3/E4	E3/E3
F2	20210 G>A	GG
F5	Arg506Gln G>A	GG
HPA-1	T>C	TT
IL-6	-174 G>C	GG
OGG1	Ser326Cys C>G	CC
PPARA	89204 G>C	GG
VEGF	-634 G>C	GG

Blood Pressure		Medium
Gene Name	Variant	Genotype
ACE2	7132 T>C	TT
ENOS	Glu298Asp G>T	TT
AGT	Met235Thr A>G	AG
ACE	Ins/Del	II
ACE2	A>G	AA
AGTR1	1166 A>C	AA
REN	C-531T C>T	CC

# Genes By Pathway

## Heart & Vascular

Blood Clotting		Medium
Gene Name	Variant	Genotype
ENOS	Glu298Asp G>T	TT
F2	20210 G>A	GG
F5	Arg506Gln G>A	GG
HPA-1	T>C	TT

Cholesterol		Low
Gene Name	Variant	Genotype
IL-6	-174 G>C	GG
CETP	Taq1B G>A	GA
CETP	G>A	GA
LPL	Ser474Ter C>G	CG
APOA5	-1131 T>C	TT
APOA5	C>A	CC
APOC3	3175 C>G	CC
APOE	E2/E3/E4	E3/E3
FABP2	Ala54Thr G>A	GG
TNFA	-238 G>A	GG

# Genes By Pathway

## Weight

Pro-Inflammatory Fat		Very High
Gene Name	Variant	Genotype
IL-1	+/-	+
CRP	2147 G>A	GG
ADIPOQ	-11391 G>A	GG
TNFA	-308 G>A	GA
IL-6R	Asp358Ala A>C	AC
ADIPOQ	-395 G>A	GA
IL-6	-174 G>C	GG
TNFA	-238 G>A	GG

Fat Storage		Very High
Gene Name	Variant	Genotype
PPARGC1A	Gly482Ser G>A	GA
MMP2	Gly226Gly G>C	CC
ADRB2	Gln27Glu C>G	CG
PLIN	11482 G>A	GA
ADRB2	Arg16Gly A>G	AG
ADRB3	Trp64Arg T>C	TT
FABP2	Ala54Thr G>A	GG
PPARG	Pro12Ala C>G	CC

Energy Expenditure		High
Gene Name	Variant	Genotype
PPARGC1A	Gly482Ser G>A	GA
FTO	87653 T>A	AA
ADRB2	Arg16Gly A>G	AG
ADRB2	Gln27Glu C>G	CG
LEPR	Lys656Asn G>C	GC
ADRB3	Trp64Arg T>C	TT
CLOCK	3111 T>C	TT
LEPR	Gln223Arg A>G	AA
LEPR	Lys109Arg A>G	AA
MC4R	T>C	TT
UCP1	-3826 A>G	AA
UCP2	-866 G>A	GG
UCP3	-55 C>T	CC

Appetite		Low
Gene Name	Variant	Genotype
FTO	87653 T>A	AA
LEPR	Lys656Asn G>C	GC
TAS2R38	Ala262Val C>T	CT
ANKK1/DRD2	TaqIA C>T	CC
APOA2	-492 T>C	TT
CLOCK	3111 T>C	TT
FAAH	Pro129Thr C>A	CC
LEPR	Gln223Arg A>G	AA
LEPR	Lys109Arg A>G	AA
MC4R	T>C	TT
SLC2A2	Thr110Ile C>T	CC

# Genes By Pathway

## Hormones

Hormone Balance		Medium
Gene Name	Variant	Genotype
CYP1B1	Leu432Val C>G	GG
GSTM1	INS/DEL	DEL
ESR2	1730 G>A	GA
COMT	Val158Met G>A	GA
MNSOD	Val16Ala T>C	TT
NQO1	Pro187Ser C>T	CT
MTHFR	677 C>T	CT
CYP17A1	34 T>C	TC
CYP19A1	C>T	CC
CYP1A1	Ile462Val A>G	AA
CYP1B1	Asn453Ser A>G	AA
CYP2C19	*1/*2/*17	*1/*1
CYP3A4	-392 A>G	AA
EPHX1	Tyr113His T>C	TT
GSTP1	Ile105Val A>G	AA
GSTT1	INS/DEL	INS
SHBG	-68 G>A	GG
SHBG	Pro185Leu C>T	CC
SRD5A1	A>G	AA
SULT1A1	Arg213His G>A	GG
UGT2B15	T>G	GG
UGT2B17	INS/DEL	INS

# Genes By Pathway

## Blood Sugar Regulation

Glucose & Insulin		Very High
Gene Name	Variant	Genotype
PPARGC1A	Gly482Ser G>A	GA
TCF7L2	IVS3 C>T	TT
MTNR1B	C>G	CG
PPARG	Pro12Ala C>G	CC
FTO	87653 T>A	AA
ADIPOQ	-11391 G>A	GG
IRS1	C>T	CT
DIO2	Thr92Ala T>C	TC
ADIPOQ	-395 G>A	GA
ADRB2	Gln27Glu C>G	CG
ADRB2	Arg16Gly A>G	AG
CETP	Taq1B G>A	GA
TNFA	-308 G>A	GA
APOA2	-492 T>C	TT
FABP2	Ala54Thr G>A	GG
FOXO1	A>G	AA
FOXO3	G>T	GT
PPARA	89204 G>C	GG
SLC2A2	Thr110Ile C>T	CC
UCP2	-866 G>A	GG

# Genes By Pathway

## Muscle & Skeletal

Collagen & Joints		Very High
Gene Name	Variant	Genotype
GDF5	5' UTR C>T	TT
COL12A1	AluI A>G	AA
VEGFA	-2578 C>A	AA
COL1A1	1546 G>T	GG
COL3A1	Ala698Thr G>A	GA
MMP1	-1607 1G/2G	1G/1G
MMP3	A>G	AG

Bone Health		High
Gene Name	Variant	Genotype
CYP2R1	A>G	GG
GDF5	5' UTR C>T	TT
VDR	Bsm1 G>A	GA
DIO2	Thr92Ala T>C	TC
<b>TIMP4</b>	<b>-55 T&gt;C</b>	<b>CT</b>
COL1A1	1546 G>T	GG
VDR	Fok1 T>C	CC
VDR	Taq1 T>C	TC

Muscle Health		High
Gene Name	Variant	Genotype
ACE	Ins/Del	II
AMPD1	133 C>T	TT
ACTN3	577 R/X	RR
IGF2	Apal G>A	GG
MLCK	37885 C>A	CC

# Genes By Pathway

## Sensitivities

Salt Medium		
Gene Name	Variant	Genotype
ACE	Ins/Del	II
AGT	Met235Thr A>G	AG

Histamine Overload Medium		
Gene Name	Variant	Genotype
HNMT	Thr105Ile C>T	CT
HNMT	939 A>G	AG
DAO	C>T	CC
DAO	His645Asp C>G	CC

Caffeine Low		
Gene Name	Variant	Genotype
NAT2	R/I/S	Slow
COMT	Val158Met G>A	GA
CYP1A2	-163 A>C	AA

Gluten Low		
Gene Name	Variant	Genotype
HLA	DQ 2.2/2.5/8	DQ2.2/DQ2.2

Iron Overload Low		
Gene Name	Variant	Genotype
HFE	C282Y/H63D	CC/HH

# Genes By Pathway

## Nutrients

### Vitamin B12

Very High

Gene Name	Variant	Genotype
TCN2	776 C>G	GG
FUT2	Gly258Ser G>A	GA

### Choline

Very High

Gene Name	Variant	Genotype
PEMT	-744 G>C	GC
MTHFD1	1958 G>A	GA
BHMT	Arg239Glu G>A	GA
CHDH	T>G	TT

### Folate

High

Gene Name	Variant	Genotype
TCN2	776 C>G	GG
MTHFD1	1958 G>A	GA
MTHFR	677 C>T	CT
MTHFR	1298 A>C	AC

### Vitamin D

Medium

Gene Name	Variant	Genotype
CYP2R1	A>G	GG
GC	A>C	AC
VDR	Bsm1 G>A	GA
VDR	Fok1 T>C	CC
VDR	Taq1 T>C	TC

### Fatty Acids

Low

Gene Name	Variant	Genotype
FADS1	592 G>T	GT
APOA2	-492 T>C	TT
ELOVL2	G>C	GG
ELOVL2	T>C	TT
FADS2	C>G	CC

### Vitamin C

Low

Gene Name	Variant	Genotype
GSTO2	Asn142Asp A>G	AA
SLC23A1	790 G>A	GG