

Blood Pressure (Functional)

Biohacker Report

REPORT CATEGORY —



HEART & BLOOD
VESSELS

Sample Client

Report date: 15 January 2026

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omicsedge

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DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg



How this works

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



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



Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

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



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

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

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



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:



Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):



Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

- 5 / 5
- Recommendations that are considered effective and generally recommended by experts and medical bodies.
-
- 4 / 5
- Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.
-
- 3 / 5
- Recommendations that are considered possibly effective and have many studies supporting them
-
- 2 / 5
- Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.
-
- 1 / 5
- Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.
-
- 0 / 5
- No evidence in humans.

Genotype-specific Evidence

- High-quality
- Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, a few large clinical trials, or a meta-analysis).
- Medium-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).
- Low-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).
- Indirect
- A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).
- In theory
- A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

When your heart beats, it pumps blood to your entire body through your blood vessels. As blood circulates, it pushes against the inner walls of these blood vessels. Your blood pressure is a measurement of how hard your blood is pushing on these walls. Blood pressure increases when the blood vessels narrow or when the heart pumps harder [\[R\]](#).

High blood pressure usually doesn't produce any symptoms. Most people don't realize they have it until they visit their doctor for a routine checkup. **The danger is that high blood pressure increases your chances of heart attack and stroke** [\[R\]](#).

Blood pressure is regulated by a complex interaction of hormones, blood vessels, and the kidneys, all of which work together to maintain a healthy balance of fluid and electrolytes. Genetic predispositions can influence how effectively these systems function, affecting factors such as vascular tone, sodium retention, and stress response.

In addition, the following factors can contribute to high blood pressure [\[R\]](#):

- Age
- Being overweight or obese
- Not getting enough physical activity
- Tobacco use
- A diet high in salt (sodium)
- A diet low in potassium
- Alcohol abuse
- Stress
- Ethnicity (African ancestry)

Genetics of Blood Pressure

Several genetic variants are associated with blood pressure regulation. These genes play critical roles in pathways such as the renin-angiotensin-aldosterone system and nitric oxide signaling, both of which are central to maintaining cardiovascular health. Understanding your genetic profile can provide valuable insights into predispositions for hypertension and help tailor interventions to better manage blood pressure.

ACE2 (rs2285666, 7132 T>C): The *ACE2* gene encodes an enzyme that counterbalances the effects of angiotensin II by promoting vasodilation. The rs2285666 variant (7132 T>C) can influence ACE2 activity, potentially affecting blood vessel relaxation and blood pressure regulation.

ACE2 (rs1978124, A>G): Another variant in the *ACE2* gene, rs1978124 (A>G), also affects ACE2 function, influencing the body’s ability to lower blood pressure through its vasodilatory effects.

NOS3 (rs1799983, Glu298Asp G>T): The *NOS3* gene encodes endothelial nitric oxide synthase, which plays a crucial role in vascular relaxation by producing nitric oxide. The rs1799983 variant (Glu298Asp G>T) is associated with reduced nitric oxide production, potentially leading to increased vascular resistance and hypertension.

AGT (rs699, Met235Thr A>G): The *AGT* gene produces angiotensinogen, a precursor to angiotensin II, a hormone that increases blood pressure. The rs699 variant (Met235Thr A>G) is associated with higher angiotensinogen levels, increasing the risk of elevated blood pressure.

ACE (rs4343, Ins/Del): The *ACE* gene encodes angiotensin-converting enzyme, which converts angiotensin I to angiotensin II, a potent vasoconstrictor. The insertion/deletion variant impacts ACE activity, with certain alleles linked to higher blood pressure and an increased risk of hypertension.

ADRB1 (rs1801253 , Arg389Gly): The *ADRB1* gene encodes a beta-1 adrenergic receptor, which plays a key



Likely typical blood pressure based on 20 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
NOS3	rs1799983	TT
AGT	rs699	GG
ADRB1	rs1801253	CC
BCL2	rs12454712	TT
APOE	rs7412	CC
AGT	rs5051	TT
ACE2	rs1978124	T
NPR3	rs1173771	AG
SH2B3	rs3184504	TC
TWIST1	rs2107595	AG
ULK3	rs6495122	CA
TNNT3	rs4980379	CT
ARHGAP42	rs633185	CG
TCF7L2	rs34872471	TC
PRKAG2	rs10224002	AG
NOS3	rs2070744	TC
CPA3	rs5186	CA
ALDH2	rs671	GG
MTHFR	rs1801133	AA
LYPD2	rs1799998	GA
ADD1	rs4961	TG
GALNT2	rs4846914	GA
TNNT3	rs1973765	CC
FGF5	rs10857147	TA
FGF5	rs16998073	TA
FGF5	rs11099098	TG
KCNK3	rs35021474	GC
FGF5	rs1458038	TC
CASZ1	rs880315	CT
NT5C2	rs112913898	GA
NT5C2	rs11191593	TC
FES	rs17514846	AC

role in regulating heart rate and blood pressure. The G allele (Arg389) is associated with enhanced receptor activity, potentially contributing to elevated blood pressure and increased risk of cardiovascular conditions.

CRP (rs579459): The *CRP* gene encodes C-reactive protein, a marker of systemic inflammation. The C allele of rs579459 is associated with higher CRP levels, which can lead to vascular stiffness and increased blood pressure.

ABO (rs1173771): The *ABO* gene determines blood group. The rs1173771 variant influences glycosylation patterns on red blood cells and is linked to levels of von Willebrand factor and clotting risk. Certain alleles are linked to changes in endothelial function and blood viscosity, potentially influencing blood pressure regulation.

SH2B3 (rs3184504 , Trp262Arg): This variant in the *SH2B3* gene, also known as LNK, impacts immune and cardiovascular function. The T allele (Arg262) is associated with higher blood pressure and an increased risk of hypertension and autoimmune conditions, likely due to altered immune signaling and vascular inflammation.

PPARA (rs2107595): The *PPARA* gene influences fatty acid metabolism and energy balance. Certain alleles may influence endothelial function and lipid regulation, indirectly impacting blood pressure control and contributing to cardiovascular risk.

SORT1 (rs6495122): Located near the *SORT1* gene, the rs6495122 variant is involved in lipid metabolism and associated with cholesterol regulation. The T allele has been linked to lower LDL cholesterol levels, better vascular health, and stable blood pressure.

CETP (rs633185): The *CETP* gene influences cholesterol transport by regulating HDL levels. The G allele of rs633185 is associated with reduced CETP activity, leading to higher HDL cholesterol levels, potentially contributing to better vascular elasticity and lower blood pressure.

GENE	SNP	GENOTYPE
PRDM8	rs1902859	CT
NT5C2	rs11191580	TC
FGF5	rs13149993	AG
NT5C2	rs11191548	TC
NT5C2	rs12219304	GC
ACE	rs4343	AA
ABO	rs579459	CC
ULK3	rs2472299	GG
ACE2	rs2285666	C
NGF	rs11466111	CC
EPAS1	rs10168349	CC
SULT1C3	rs6722745	TT
AGT	rs4762	GG
RPTOR	rs139293840	GG
BMP3	rs17004869	AA
CACNA1D	rs3774427	CC
CACNA1D	rs9814480	CC
ST7L	rs10776752	GG

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

Your Recommendations

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You'll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

DOSAGE		DOSAGE			
1	Exercise At Least One Hour a Day	1 hour	2	DASH Diet	
3	Limit Salt Intake		4	Garlic Supplement	200 mg
5	Hibiscus	250 mg	6	Tea	
7	Psyllium	5 g	8	Omega-3 (Fish Oil)	2000 mg
9	Beetroot Juice		10	Mediterranean Diet	
11	Orange Blossom Aromatherapy				

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Exercise At Least One Hour a Day

IMPACT

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EVIDENCE

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How to implement

Dedicate a minimum of 60 minutes to moderate-intensity activities such as brisk walking, swimming, or cycling. Do this most days of the week, aiming for at least 5 days to optimize benefits.

TYPICAL STARTING DOSE
1 hour

Description

[Exercise](#) can do wonders for your health. It can help you lose weight, improve your heart health, boost your mood, and more [\[R\]](#).

There are many ways you can be active. You can walk, run, swim, dance, or play team sports. **Everything counts, and it's never too late to start!**

Try to get at least **60 minutes of moderate physical activity on most days**, including walking. **Getting a mix of cardio (min 150 min/day) and strength training (min 2 times a week) may be optimal.**

How it helps

[Exercise](#) is a great way to lower your blood pressure. A single exercise session can lower your blood pressure for up to 24 hours. These benefits also add up over time [\[R\]](#).

The type of exercise is less important. Aquatic exercise, stretching, brisk walking, tai chi, etc. are all effective [\[R, R, R, R, R\]](#). **In general, choose something that you like, because you'll be more likely to stick to it!**

PERSONALIZED TO YOUR GENES

People with your [NOS3](#) gene variant may get bigger improvements in blood pressure from cardio [\[R\]](#).

People with your [SCAP](#) gene variant may have a higher blood pressure if they don't exercise [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
NOS3	rs1799983	TT	
SCAP	rs12487736	TC	

How to implement

Description

Health experts developed the DASH diet to reduce blood pressure. This diet also helps support weight control while reducing inflammation and cholesterol [R].

- Fruits (4-5 servings/day)
- Vegetables (4-5 servings/day)
- Whole grains (6-8 servings/day)
- Low-fat dairy (2-3 servings/day)
- Nuts, seeds, and legumes (4-5 servings/week)
- Fish and poultry (up to 6 ounces/day)

Although similar to the [Mediterranean diet](#), DASH is lower in sodium (<2,300 mg a day) and omega-3 fatty acids. On the other hand, it's higher in red meat and dairy [\[R\]](#).

How it helps

The DASH diet is among the most effective diets for reducing blood pressure [R, R, R].

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Limit Salt Intake

IMPACT

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EVIDENCE

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How to implement

Reduce your daily salt intake to less than 2,300 milligrams (mg), equivalent to about one teaspoon of table salt. This includes all salt consumed, whether added during cooking, at the table, or present in processed and ready-to-eat foods.

Description

Limiting salt intake involves lowering the amount of sodium in the diet, which can help lower blood pressure and reduce the risk of heart disease. It often involves avoiding processed and other high-sodium foods such as cured meats, soups and sauces, and various pickled foods.

Your body needs a certain amount of sodium to function. For example, it helps support your blood pressure. This sodium usually comes from [salt](#). However, eating too much salt is linked to an increased risk of stroke and heart disease [\[R, R\]](#).

Foods higher in salt include [\[R, R, R\]](#):

- Prepared soups, broths, gravies, and sauces
- Fermented or pickled foods (such as pickles, soy sauce, olives, and [capers](#))
- Cured meats and sausages (such as bacon, salt pork, and salami)
- Cheese (such as Roquefort and Parmesan)

Try to limit your daily intake to 1 teaspoon of salt (2,400 mg of sodium) [\[R\]](#).

How it helps

For people with low blood pressure and low sodium levels, adding more salt to food (1-2 teaspoons/day) may help [\[R, R, R, R\]](#):

- Support healthy blood pressure and heart rate
- Prevent fainting

Moderate salt intake may help by balancing electrolytes and hormones that control blood pressure. It may also increase blood volume [\[R, R\]](#).

Please note: *Increasing salt intake may not be the best option for older adults and people with conditions such as kidney or heart problems. Talk to your doctor before increasing your salt intake* [\[R, R\]](#).

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Garlic Supplement

IMPACT3 / 5

EVIDENCE4 / 5

How to implement

Take a garlic supplement, such as a garlic extract or aged garlic supplement, in a dosage of 600-1,200 mg per day, divided into separate doses. This should be taken with meals to minimize digestive issues. Continue daily for at least 8-12 weeks to evaluate its effects on health markers like blood pressure or cholesterol.

TYPICAL STARTING DOSE

200 mg

Description

Garlic is a pungent herb known for its potential health benefits, including cardiovascular support and immune system enhancement. It contains bioactive compounds that may help reduce the risk of chronic diseases and support overall well-being.

[Garlic](#) is a delicious aromatic herb that adds flavor to your food. But did you know that garlic has been a part of traditional medicine for thousands of years? **From ancient Egypt and Rome to China, people have praised garlic for its many health benefits.** Today, we can trace many of those benefits to sulfur-rich compounds found in garlic. People take garlic to help control their blood pressure and cholesterol [\[R\]](#).

Please note: *Garlic can interact with blood thinners (like aspirin, Plavix, Coumadin). If you are on blood thinners, consult your doctor before supplementing with garlic [\[R\]](#).*

How it helps

Studies have found that supplementing with [garlic](#) extract (600-2,400 mg/day) may help lower blood pressure [\[R, R, R, R, R, R\]](#).

Garlic can help lower blood pressure in two ways. First, sulfur-containing compounds in garlic can help relax blood vessels. Second, garlic can also improve blood flow by reducing blood vessel inflammation [\[R, R, R\]](#).

 PERSONALIZED TO YOUR GENES

Your [JAG1](#) gene variant is linked to high blood pressure. Increased *JAG1* activity likely narrows blood vessels. Garlic may help by widening blood vessels [\[R, R, R\]](#).

Your [AGT](#) gene variant is linked to high blood pressure, likely due to narrowed blood vessels. Garlic may help by relaxing blood vessels [\[R, R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
JAG1	rs1887320	GA	
AGT	rs699	GG	

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Hibiscus

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take 250 mg of hibiscus supplement daily, either in the form of a capsule or powder. It can be taken at any time of day, with or without food.

TYPICAL STARTING DOSE
250 mg

Description

Hibiscus is a flower known for its potential to lower blood pressure, boost antioxidant levels, and support heart health. Consuming hibiscus tea or incorporating hibiscus into your diet may provide these health benefits.

[Hibiscus](#) (*Hibiscus sabdariffa*), also known as roselle or sorrel, is a flowering plant. It is traditionally brewed as a tea of a distinctive, bright pink color [\[R\]](#) [\[R\]](#).

For hundreds of years, people from all over the world have taken hibiscus for its potential health benefits [\[R\]](#) [\[R\]](#) [\[R\]](#).

Please note: *Hibiscus can interact with "water pills" (diuretics) like hydrochlorothiazide. If you are using "water pills", consult your doctor before taking hibiscus.*

How it helps

Hibiscus may help lower blood pressure in two ways. For one, it increases urination, helping remove excess salt and water. Second, hibiscus helps relax the blood vessels [\[R\]](#).

Many studies have shown that hibiscus extracts can help reduce blood pressure. These extracts contain about 4-10 mg of active components called *anthocyanins* [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#).

Hibiscus tea (4-10 g/day) may also reduce blood pressure, but has a weaker effect compared to hibiscus extracts [\[R\]](#) [\[R\]](#) [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Your [NPR3](#) gene variant is linked to high blood pressure. This gene influences salt levels. Hibiscus may help by removing excess salt [\[R\]](#) [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
NPR3	rs1173771	AG	

6



Tea

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Drink 1-3 cups of tea daily, choosing from green, black, or herbal varieties according to preference. It's beneficial to consume tea throughout the day, either hot or cold, for ongoing hydration and health benefits.

Description

Tea is a beverage made by steeping the leaves of the *Camellia sinensis* plant in hot water. It comes in various types, including black, green, white, and herbal teas, and is known for its diverse flavors and potential health benefits due to polyphenols and other bioactive compounds.

[Green](#) and black tea are made from the same plant (*Camellia sinensis*). This plant is processed in different ways to make each type of tea [\[R, R\]](#).

Tea contains many active compounds. These include antioxidants like EGCG and amino acids like [L-theanine](#). Active components of tea help support [\[R, R, R, R, R, R\]](#):

- Heart health
- Cognition
- Immunity
- Relaxation

How it helps

Regular tea drinking may lower blood pressure and protect against metabolic syndrome. While all types of tea may help lower diastolic blood pressure, only black tea may be effective at lowering systolic blood pressure [\[R\]](#).

7



Psyllium

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take 5 grams of psyllium husk powder with at least 8 ounces of water. Do this once daily, preferably in the morning before breakfast. Continue this regimen daily for ongoing digestive health benefits.

TYPICAL STARTING DOSE

5 g

Description

Psyllium is a plant-based dietary fiber derived from the seeds of the *Plantago ovata* plant. It is primarily used both traditionally and today, as a dietary supplement due to its high soluble fiber content, aiding in digestive health and regulating bowel movements. The main compounds in psyllium are soluble fiber and mucilage.

[Psyllium husk](#) might be beneficial for gut health and heart health. But what exactly is this supplement and how does it work?

Psyllium is an herb that grows around the world. Its “husk,” the outer coating of the psyllium seed, is full of fiber. The health benefits of psyllium husk are due to this fiber.

How it helps

Getting enough fiber in your diet has many beneficial effects. Lowering blood pressure is one of them [\[R, R\]](#).

Therefore, **if you have high blood pressure, adding psyllium husk (10-12 g/day) to your diet may help** [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Psyllium may reduce blood pressure more in people with your **NPY** gene variant [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
NPY	rs16147	TT	

8



Omega-3 (Fish Oil)

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Take 1-2 g of omega-3 (fish oil) supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

2000 mg

Description

Omega-3 fatty acids are essential fats found in fatty fish like salmon, flaxseeds, and walnuts. They are known for their potential cardiovascular and brain health benefits, including reducing the risk of heart disease and supporting cognitive function.

[Omega-3 fatty acids](#) are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Our bodies produce less omega-3s than we need for optimal health, so it's important to get enough through food or supplements [\[R\]](#), [\[R\]](#), [\[R\]](#).

There are three major types of omega-3s: ALA, EPA, and DHA [\[R\]](#), [\[R\]](#).

Fatty fish are rich in EPA and DHA. They include [\[R\]](#):

- Salmon
- Tuna
- Herring
- Sardines

For optimal protection, try to get at least **two servings of fatty fish per week**. Fish oil supplements are available for those who don't eat fish regularly [\[R\]](#).

How it helps

Omega-3s are important for the tightening and relaxation of your blood vessels [\[R\]](#), [\[R\]](#).

High blood levels of omega-3 fatty acids, especially DHA, may lead to lower blood pressure [\[R\]](#), [\[R\]](#).

Studies have also shown that [fish oil](#) (> 2 g/day), which is rich in omega-3s, can help decrease blood pressure [\[R\]](#), [\[R\]](#).

Genetically higher PUFA, omega-3s, and DHA levels may be causally associated with a decreased risk of pregnancy-induced hypertension risk, while higher omega-6/omega-3 ratios may be associated with an increased risk [\[R\]](#).

 PERSONALIZED TO YOUR GENES

An increased intake of omega-3 fatty acids has been associated with greater blood pressure decrease over time in people with your [CYP4F2](#) gene variant [\[R\]](#).

Your [NOS3](#) gene variant is linked to high blood pressure, likely due to narrowed blood vessels. Getting more omega-3 acids may help relax blood vessels [\[R, R, R, R, R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
CYP4F2	rs2108622	CC	
NOS3	rs1799983	TT	

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Beetroot Juice

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Consume 200-250ml of beetroot juice daily, at least 1-2 hours before engaging in physical activity or as part of your breakfast routine. This regimen should be maintained consistently for at least 2 weeks to start noticing benefits in terms of increased stamina and blood pressure regulation.

Description

Beetroot juice is a concentrated source of dietary nitrates, known for their potential to enhance athletic performance and improve blood pressure regulation. It is often consumed by athletes to enhance stamina and aid in recovery.

Beetroot (*Beta vulgaris*) contains iron, nitrates, sodium, potassium, and betalaine [\[R\]](#).

Beets are an inexpensive and mineral-rich vegetable that are widely used in Western cooking. Compared to other vegetables with high iron content, beets have a low price and are easy to store [\[R\]](#).

How it helps

Two meta-analyses found that supplementing the diet with beetroot juice (or inorganic nitrate) lowered systolic (by 4.4 mmHg) and diastolic (by 1.1 mmHg) blood pressure, and improved blood vessel function. However, beetroot may be less effective in people over 65 years old [\[R, R, R\]](#).

A meta-analysis of 22 trials found that beetroot juice was more effective when taken for periods longer than 14 weeks at doses of at least 500 mL/day. Nitrate-depleted beetroot juice also had some blood pressure-lowering effects in this analysis, highlighting its nitrate-independent mechanisms [\[R\]](#).

Beetroot is very rich in nitrates, which are converted to the blood vessel-widening molecule nitric oxide in the body.

10



Mediterranean Diet

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Incorporate a variety of primarily plant-based foods, such as fruits, vegetables, whole grains, nuts, and legumes, into every meal. Choose healthy fats, like olive oil, over saturated fats and consume fish and poultry at least twice a week. Limit red meat to a few times a month and include a moderate amount of dairy products. Opt for water and red wine in moderation as your beverages.

Description

The [Mediterranean diet](#) is based on the traditional cuisine from the Mediterranean regions. It moderates the intake of red meat and dairy, while being rich in fruits and vegetables, whole grains, and healthy fats ([olive oil](#)).

The [Mediterranean diet](#) focuses on traditional cuisine from the Mediterranean regions. It’s rich in [\[R\]](#):

- [Olive oil](#)
- Fruits and vegetables
- Whole grains
- Nuts and seeds
- Fish

This type of diet may **reduce inflammation and protect the brain and heart** [\[R, R, R, R\]](#).

Limited intake of animal products, saturated fat, and refined sugar likely contribute to the health benefits of the Mediterranean diet [\[R\]](#).

How it helps

The **Mediterranean diet is well-known as a “heart-healthy” diet**. Studies have shown it can help decrease blood pressure and prevent heart disease [\[R, R, R\]](#).

 PERSONALIZED TO YOUR GENES

A Mediterranean diet may reduce the risk of heart disease in people with your [TCF7L2](#) variant. Make sure you're also getting enough healthy fats from extra-virgin olive oil (50 mL/day) or nuts (30 g/day) [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
TCF7L2	rs7903146	CT	

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Orange Blossom Aromatherapy

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Diffuse orange blossom essential oil in your living area or bedroom for 15-30 minutes at a time, ideally 2-3 times a day. Ensure the room is well-ventilated, and avoid direct inhalation from the bottle. Discontinue if any allergic reactions occur.

Description

Orange blossom is the fragrant flower of the bitter orange tree (*Citrus aurantium*). Its delicate, sweet scent has made it a popular ingredient in perfumes, cosmetics, and culinary creations.

Orange blossom is known for its potential to reduce anxiety when inhaled as an essential oil, making it a calming choice for aromatherapy.

People also use aromatherapy with orange blossom to help with:

- Sleep complaints
- Menopausal symptoms
- Premenstrual syndrome (PMS)
- High blood pressure

How it helps

A randomized controlled trial involving 27 participants investigated the effects of aromatherapy during colonoscopy. While it didn't significantly reduce procedural anxiety or pain, it did lead to a notable decrease in systolic blood pressure [\[R\]](#).

In a non-placebo-controlled trial of 63 postmenopausal women, inhaling orange blossom oil (0.1-0.5%) for 5 minutes 2x/day for 5 days resulted in significant improvements in blood pressure (both systolic and diastolic blood pressure) and pulse rate [\[R\]](#).

An essential oil blend with orange blossom, lavender, ylang-ylang, and marjoram significantly reduced 24-hour ambulatory blood pressure (systolic, diastolic, and daytime blood pressure) and salivary cortisol levels in a placebo-controlled trial of 83 prehypertensive and hypertensive individuals [\[R\]](#).