

Heart Attack

Disease Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

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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

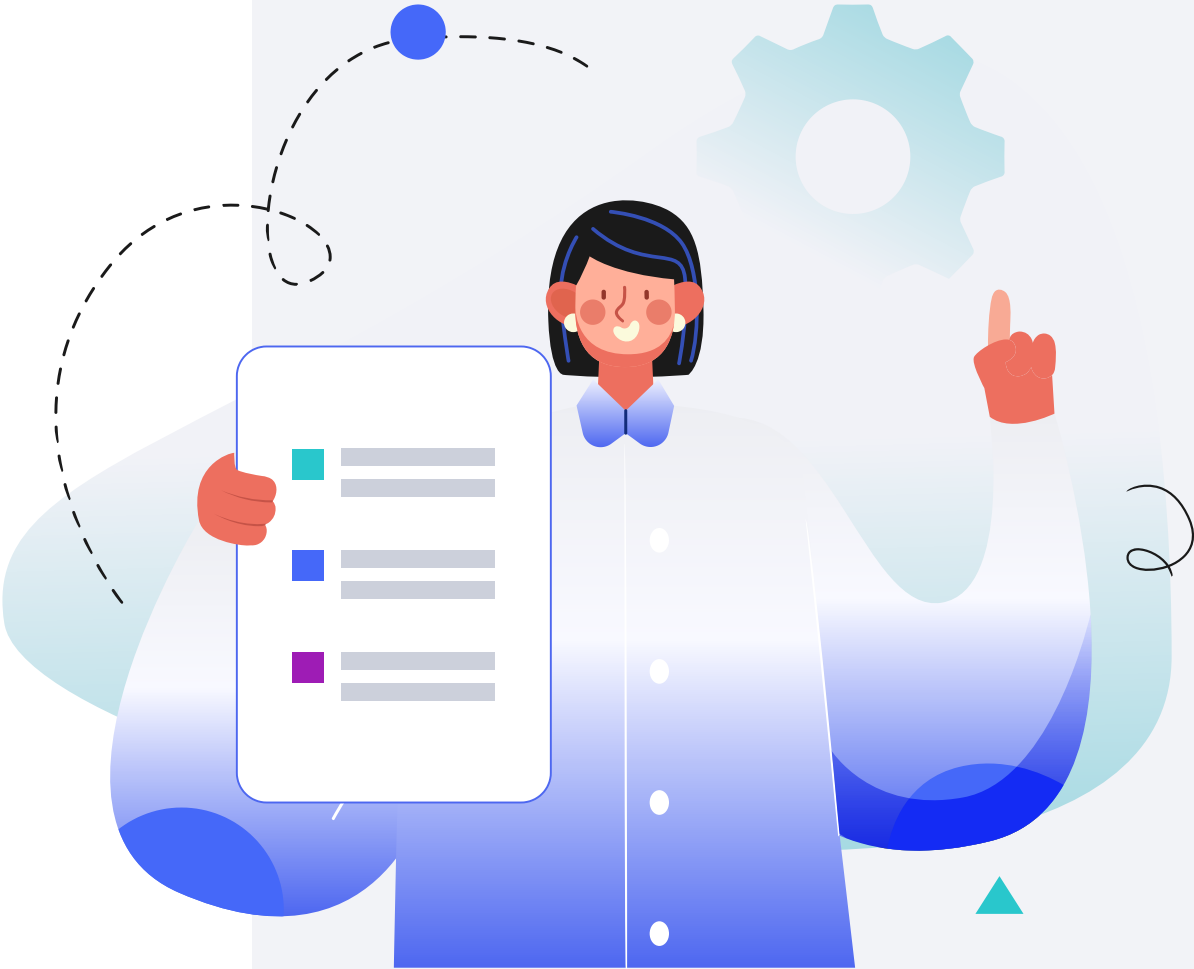
Male

HEIGHT

5ft 5" 165cm

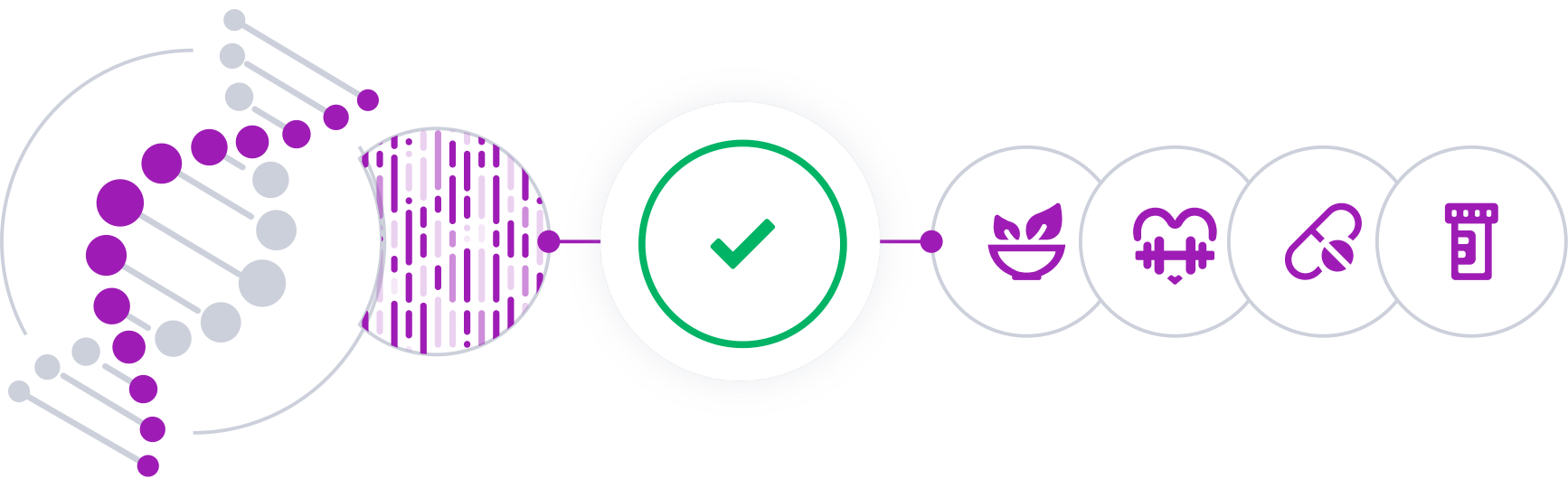
WEIGHT

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.

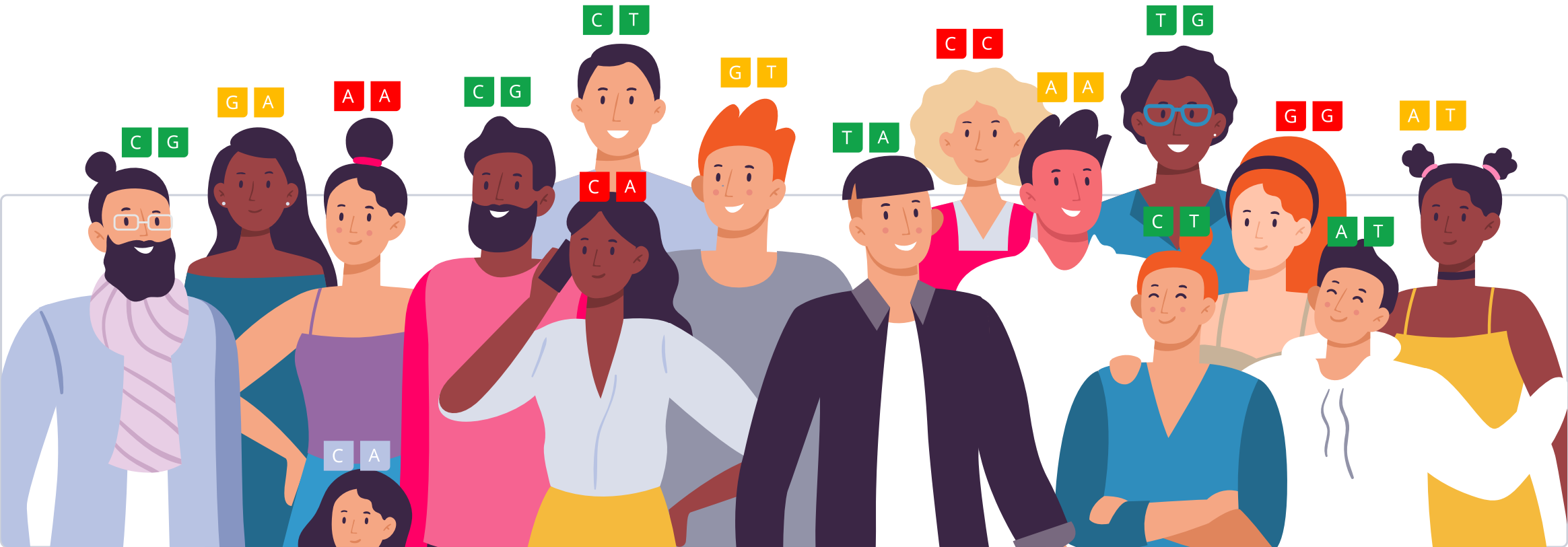


Similarly, our Trait Reports look at how your DNA influences your traits.



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

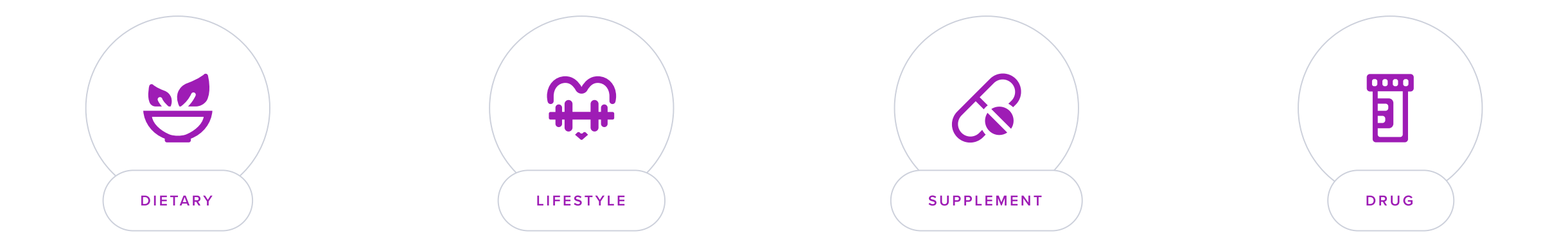
You have 2 risk alleles

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

Myocardial infarction, also known as a heart attack, occurs when the blood supply to a part of the heart is disrupted, causing damage to the heart muscle.

This can be caused by a blockage in one of the coronary arteries, which supply oxygen-rich blood to the heart. It kills about **3 million people per year worldwide** [\[R\]](#).

Symptoms of a heart attack may include [\[R\]](#):

- Chest pain, pressure, or tightness
- Pain or discomfort in or spreading to the shoulder, arm, back, neck, or jaw
- Cold sweat
- Heartburn or indigestion
- Lightheadedness or sudden dizziness
- Nausea
- Fatigue
- Shortness of breath

If you think you or someone you know may be having a heart attack, it is important to seek medical attention immediately. Heart attacks can be life-threatening and require emergency treatment.

Treatment for a heart attack may include **medications and surgical procedures**. It is also important to make lifestyle changes to reduce the risk of future heart attacks, such as **quitting smoking, exercising regularly, and eating a healthy diet**.

Risk Factors

Key Takeaways:

- **50-60%** of differences in people's chances of having a heart attack may be due to genetics.
- About **3 million people** around the world die from heart attacks every year.
- If you have a high genetic risk, you may lower your overall risk by taking action on risk factors that you can change.
- Other risk factors include age (45+ for men, 55+ for women), smoking, high blood pressure, obesity, diabetes, stress, and high cholesterol.
- Click the **Recommendations** tab for potential dietary and lifestyle changes, and **next steps** for relevant labs.

Risk factors for a heart attack include [\[R\]](#):

- Age (over 45 for men and over 55 for women)
- Exposure to cigarette smoke
- Sedentary lifestyle
- Unhealthy diet
- Stress
- Recreational drug use
- **Genetics**

For example, genetically high ApoB, betaine, choline, and L-carnitine may be causally associated with a higher risk of myocardial infarction [\[R, R, R, R\]](#).

The following health conditions may contribute to a heart attack [\[R\]](#):

- High blood pressure
- High cholesterol or triglycerides
- Obesity
- Diabetes
- Autoimmune conditions

About **50-60%** of differences in people's chances of having a heart attack may be due to genetics [\[R\]](#).



TYPICAL LIKELIHOOD

Typical likelihood of a heart attack based on 888,414 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CDKN2A	rs2891168	GG
GGT5	rs180803	GG
PHACTR1	rs9349379	GG
PLPP3	rs9970807	CC
ABO	rs532436	AA
SORT1	rs7528419	AA
SMARCA4	rs55791371	AA
MIA3	rs35700460	GG
COL4A1	rs11617955	TT
GUCY1A1	rs72689147	GG
SAYSD1	rs1544935	TT
LIPA	rs1332329	CC
PCSK9	rs11206510	TT
SMAD3	rs72743461	CC
EDNRA	rs4593108	CC
VAMP8	rs10176176	TT
MRPS6	rs28451064	AG
TRIB1	rs2001846	TT
SH2B3	rs653178	CT
POC1B	rs2681472	AG
SFXN2	rs1004467	AG
COL4A2	rs55940034	GA
FES	rs2521501	TA
DDI1	rs2019090	AT
ZC3HC1	rs11556924	TC
ATP5MC1	rs35895680	CA
JCAD	rs2505083	TC
HHIPL1	rs10139550	CG
LPA	rs10455872	AA
PLG	rs2315065	CC
APOE	rs56131196	GG
ZEB2	rs17678683	TT

GENE	SNP	GENOTYPE
TTC32	rs16986953	GG
BCAS3	rs7212798	TT
ZNF32	rs1870634	TT
CTSH	rs7165042	GG
IL6R	rs12118721	CC
SRR	rs9914266	TT

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

Your Recommendations

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

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

DOSAGE		DOSAGE			
1	Aerobic Exercise (Cardio)	1 hour	2	Avoid Noise Pollution	
3	Mediterranean Diet		4	Salvia Miltiorrhiza	
5	N-acetylcysteine (NAC)	600 mg	6	Niacin Supplements	20 mg
7	Avoid BPA (Bisphenol A) Exposure		8	Avoid Betaine (TMG) Supplements	
9	Magnesium Sulfate	200 mg	10	Melatonin	500 mcg
11	Hyperbaric Oxygen Therapy	90 minutes	12	Avoid Calcium Supplements	
13	Avoid Lead Exposure		14	Coenzyme Q10 and Selenium	
15	Avoid L-Arginine Supplements		16	Mustard	
17	Selenium Supplements	50 mcg	18	Hatha Yoga	1 hour
19	Coenzyme Q10 (CoQ10)	100 mg	20	Avoid Air Pollution	
21	Black Chokeberry		22	Lemon Oil Aromatherapy	3 drops
23	Avoid Cadmium Exposure		24	Bilberry	
25	Laughter Therapy	30 minutes	26	D-Serine	
27	Glycine	3 g	28	Berries	
29	Avoid Strenuous Activity		30	Practice Exercise Snacks	1 minutesute
31	Whole Grains		32	Avoid Substance Abuse	

33	Legumes	34	Strength Training	1 hour
35	Limit Caffeine Intake	36	Fruits And Vegetables	
37	Dietary Omega-3 Fatty Acids	38	Walking	30 minutes
39	Sleep for 7+ Hours	40	Oats	
41	Leafy Green Vegetables	42	DASH Diet	
43	Avoid Choline Supplements	44	Limit Salt Intake	
45	Avoid Illicit Drugs			

1

Aerobic Exercise (Cardio)

IMPACT

4 / 5

EVIDENCE

4 / 5

How to implement

Engage in at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity activity each week. Distribute this time over at least 3 days per week, avoiding consecutive days of vigorous exercise to allow for recovery.

TYPICAL STARTING DOSE

1 hour

Description

Engaging in regular aerobic exercise, such as running, swimming, or cycling, offers numerous health benefits, including improved cardiovascular fitness, weight management, and mood enhancement. It supports overall physical and mental well-being while reducing the risk of chronic diseases.

Cardio, short for cardiovascular exercise, is any type of physical activity that temporarily increases your heart rate. Examples include **running, cycling, swimming, and brisk walking**.

Regular cardio exercise has many benefits for your overall health. It can help lower your risk of heart disease and diabetes, support weight loss, and improve your mood and energy levels. To get the most out of cardio, try to do it for at **least 30 minutes, 3-5 times a week**.

Interval training is a type of cardio that combines periods of high-intensity training with brief rest periods.

How it helps

Engaging in regular vigorous exercise may reduce the risk of having a heart attack and dying from this condition [\[R\]](#), [\[R\]](#).

In people undergoing cardiac rehabilitation after a heart attack, aerobic exercise may improve aerobic capacity while reducing mortality and recurrence rates, anxiety, and depression [\[R\]](#), [\[R\]](#), [\[R\]](#).

High-intensity interval training may be more effective than continuous aerobic exercise at improving cardiorespiratory fitness in both healthy subjects in heart attack survivors [\[R\]](#), [\[R\]](#).

Aerobic exercise may help by strengthening the heart muscle, increasing blood circulation, reducing blood pressure, and helping to regulate cholesterol levels.

2



Avoid Noise Pollution

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Minimize exposure to loud environments by using noise-cancelling headphones or earplugs, especially in areas known for high noise levels such as construction sites, concerts, and busy urban streets. Aim to keep the volume of personal audio devices below 60% of their maximum. At home, use carpets, curtains, and wall fabrics to reduce indoor noise, and prefer quieter appliances. Try to dedicate at least one hour of quiet time before bed to aid in relaxation and improve sleep quality.

Description

Noise pollution refers to the presence of excessive, disruptive, or unwanted sound in the environment. It often includes sounds from traffic, industrial machinery, construction, loud music, and other sources that exceed acceptable or comfortable noise levels. Noise pollution disrupts normal activities and can have detrimental effects on human health, well-being, and the natural world.

Prolonged exposure to high noise levels can lead to a range of health issues, including:

- Stress
- Anxiety,
- Sleep disturbances
- High blood pressure
- Heart disease
- Impaired cognitive function

How it helps

A meta-analysis of 23 studies found that the risk of myocardial infarction increased by 1% for every 10-dB increment in road traffic and aircraft sound [\[R\]](#).

3



Mediterranean Diet

IMPACT3 / 5

EVIDENCE3 / 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

Adherence to a Mediterranean diet may reduce the risk of having a heart attack and dying from this condition. Components of this diet such as olive oil, fruits, vegetables, and legumes may have the strongest impact on heart attack [\[R, R, R\]](#).

The Mediterranean diet may also reduce the risk in people with a history of heart attack [\[R, R, R\]](#).

4



Salvia Miltiorrhiza

IMPACT3 / 5

EVIDENCE2 / 5

How to implement

Take 200-600mg of Salvia miltiorrhiza extract in capsule or tablet form daily, divided into two or three doses. This should be taken with water, preferably 30 minutes before meals. Continue for a period of 8 to 24 weeks for noticeable effects.

Description

Salvia miltiorrhiza, also known as Danshen, is a traditional Chinese medicinal herb. It is primarily used for its potential cardiovascular benefits, including improving blood circulation and reducing the risk of heart-related conditions. It contains various compounds, including tanshinones and salvianolic acids.

How it helps

A Cochrane review of 6 trials and 2368 participants concluded that *Salvia miltiorrhiza* preparations halve mortality in patients with acute myocardial infarction. However, the authors warned about the weakness of the evidence [R].

Salvia miltiorrhiza may help by enhancing blood flow and reducing inflammation.

5



N-acetylcysteine (NAC)

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Take 600 mg of N-Acetylcysteine (NAC) supplement daily with water. It can be taken at any time of the day, but try to take it at the same time each day for best results.

TYPICAL STARTING DOSE
600 mg

Description

NAC is a supplement that contains a form of the amino acid cysteine, a protein building block that your body uses to make the antioxidant glutathione. It is used for its potential antioxidant properties and its ability to support lung, gut, and mental health.

[N-acetylcysteine](#) (NAC) is converted to cysteine in the body. Cysteine is a protein building block (amino acid) that helps make the antioxidant glutathione [\[R\]](#).

People take NAC to potentially support [\[R\]](#), [\[R\]](#):

- Mental health
- Ovarian health and pregnancy outcomes
- Lung health
- Gut health

How it helps

N-acetylcysteine (NAC) acts as a powerful antioxidant, helping to minimize damage caused by inflammation and oxidative stress, two elements often elevated during a heart attack. Moreover, NAC can help dissolve blood clots, potentially preventing or alleviating blockages that trigger heart attacks.

A [meta-analysis of 9 studies and 1419 patients with ST segment elevation myocardial infarction](#), supplementation with NAC **reduced all-cause mortality (by almost 2-fold), the occurrence of major adverse cardiovascular events (by 58%), and myocardial enzyme hs-TnT level** [\[R\]](#).

6



Niacin Supplements

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take a 20 mg niacin supplement daily, preferably with a meal to aid in absorption and minimize potential stomach upset.

TYPICAL STARTING DOSE

20 mg

Description

Niacin is an essential B vitamin that plays a vital role in metabolism, supporting heart health, maintaining healthy cholesterol levels, and promoting overall cellular function when included in a balanced diet or as a supplement.

[Niacin](#) (vitamin B3) is found in many foods. It supports your nervous system, skin, gut, and more [\[R\]](#).

Adults should get **16 mg** of niacin a day, and most people get enough from their diets [\[R\]](#).

Experts recommend getting niacin from food rather than supplements [\[R\]](#), [\[R\]](#).

How it helps

Niacin, also known as Vitamin B3, can help prevent heart attacks by improving cholesterol levels and promoting good heart health. It increases HDL, the 'good' cholesterol, which carries LDL, the 'bad' cholesterol, back to the liver for processing, reducing the risk of arterial blockage.

Stratified meta-analysis suggests niacin monotherapy may reduce certain cardiovascular events in patients not on statin treatment, based on older studies. Its role in lipid control for secondary prevention, particularly in statin-intolerant patients, warrants further investigation in contemporary populations. [\[R\]](#)

Niacin use in 11 trials (9,959 subjects) was linked to significantly reduced risks of composite cardiovascular disease (CVD) events and major coronary heart disease events, but not stroke incidence.) [\[R\]](#)

In seven studies with 5137 patients, niacin therapy significantly reduced coronary artery revascularization, nonfatal myocardial infarction, stroke, and transient ischemic attack, with a possible but nonsignificant decrease in cardiac mortality. [\[R\]](#)

A review of 23 randomized controlled trials (RCTs) involving 39,195 participants found evidence that niacin does not reduce mortality, cardiovascular mortality, non-cardiovascular mortality, myocardial infarctions, or strokes. However, it is associated with side effects, and its benefits in preventing cardiovascular disease events are unlikely. [\[R\]](#)

Please note: *Niacin has been linked to liver damage, diabetes, and strokes. It may also cause flushing, bruises, and bleeding. Most doctors do not recommend taking niacin unless a person can't take statins and has close medical supervision. Talk to your doctor before taking niacin.* [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#)

How to implement

Description

BPA is a well-known hormone disruptor. Research has linked BPA exposure to diabetes, heart disease, altered behavior, and more [R].

How it helps

BPA can disrupt heart function and cardiovascular processes, raising blood pressure. High blood pressure is a significant risk factor for heart attacks.

How to implement

Description

Avoiding excessive betaine supplements is recommended, as very high intake may have potential side effects. Betaine can be obtained naturally from foods like beets and spinach without the risk of overconsumption.

How it helps

Genetic prediction results suggested that for every 1 unit increase in betaine, the relative risk of heart failure and myocardial infarction increased by 1.4% and 1.7%, respectively [R].

A meta-analysis of 16 prospective studies, 19 256 participants, and 3315 incident cases found that people with elevated concentrations of TMAO precursors (l-carnitine, choline, or betaine) had an approximately **1.3 to 1.4 times higher risk for major adverse cardiovascular events (MACE)** compared to those with low concentrations [R].

9



Magnesium Sulfate

IMPACT

1 / 5

EVIDENCE

2 / 5

How to implement

Take 200-400 mg of magnesium sulfate orally with water once daily, ideally in the evening or as directed by your healthcare provider. Continue this supplementation as recommended by your healthcare provider, often for several weeks to months for optimal benefits.

TYPICAL STARTING DOSE

200 mg

Description

Magnesium sulfate, also known as Epsom salt, is used in baths and topical applications to soothe sore muscles, alleviate stress, and promote relaxation. It is believed to be absorbed through the skin, providing a calming effect on muscles and the nervous system.

How it helps

Magnesium Sulfate helps regulate heart function and can prevent further heart damage after a heart attack. It plays a crucial role in maintaining a normal heartbeat and might reduce the risks of arrhythmias (abnormal heart rhythms).

In a study of 103 patients with acute myocardial infarction (AMI), magnesium infusion for 48 hours reduced tachyarrhythmias, conduction disturbances, and intrahospital mortality compared to a placebo group, supporting a potential protective role of magnesium in AMI patients [R].

Another study involving 38 AMI patients found that pretreatment with intravenous magnesium sulfate reduced reperfusion arrhythmia incidence and lowered ST segment re-elevation after coronary reperfusion. It also reduced interleukin-6 (IL-6) levels, suggesting a protective effect against reperfusion injuries [R].

In a clinical trial with 108 AMI patients who underwent primary coronary intervention, intravenous magnesium improved left ventricular systolic function, reduced left ventricular end-diastolic volume index, and increased coronary flow velocity reserve (CFVR), indicating favorable functional outcomes as an adjunct to primary coronary intervention [R].

10



Melatonin

IMPACT1 / 5

EVIDENCE2 / 5

How to implement

Take 500 mcg of melatonin orally, about 30 minutes before bedtime, to help with sleep. It can be taken daily as needed.

TYPICAL STARTING DOSE

500 mcg

Description

Melatonin is a natural hormone produced by the pineal gland in the brain that helps regulate the sleep-wake cycle. It plays a crucial role in promoting sleep onset and maintaining a consistent sleep pattern, making it a commonly used supplement for managing sleep disorders and jet lag.

[Melatonin](#) is an important sleep hormone. Bright light at night may prevent your body from making enough melatonin [\[R, R, R\]](#).

Your body makes melatonin on its own. However, some people take melatonin supplements to help them sleep. It may help with jet lag in particular [\[R, R, R\]](#).

How it helps

Melatonin is known for regulating sleep patterns but it is NOT proven to directly prevent or treat heart attacks. Some studies suggest that melatonin can contribute to reducing blood pressure and inflammation, potentially indirectly supporting heart health.

11



Hyperbaric Oxygen Therapy

IMPACT

1 / 5

EVIDENCE

2 / 5

How to implement

Schedule and attend sessions in a hyperbaric oxygen therapy chamber as your doctor prescribes, typically for about 60 to 90 minutes per session. The exact number of sessions required can vary based on the condition being treated, but it often ranges from 20 to 40 sessions, which may be conducted daily or a few times a week.

TYPICAL STARTING DOSE

90 minutes

Description

Hyperbaric oxygen therapy increases the amount of oxygen in the blood and tissues, which can help to improve circulation, reduce inflammation, and promote healing.

How it helps

A review of 6 small trials with 665 patients with acute coronary syndrome found that hyperbaric oxygen therapy reduced the risk of death by around 42%, the volume of damaged muscle, the risk of MACE, and the time to relief from ischemic pain. Only a single patient was reported to have significant barotrauma to the tympanic membrane. An older meta-analysis of 4 trials with 462 participants found similar results [\[R\]](#), [\[R\]](#).

Hyperbaric oxygen therapy increases the amount of oxygen in the blood, which aids in the repair of damaged heart tissues and growth of new blood vessels.

Please note: Hyperbaric oxygen therapy is a potentially dangerous procedure that should only be performed under medical supervision. People with pneumothorax or congestive heart failure are at especially high risk of adverse effects. Because highly concentrated oxygen can easily catch on fire, avoid potential fire sources around hyperbaric oxygen chambers, oxygen gas cylinders, tanks, and concentrators [\[R\]](#), [\[R\]](#).

12



Avoid Calcium Supplements

IMPACT

1 / 5

EVIDENCE

2 / 5

How to implement

Do not purchase or consume any calcium supplements. If you're currently using them, discontinue use immediately and do not replace them with another form of calcium supplement. Ensure that your calcium needs are met through dietary sources such as dairy products, leafy green vegetables, or fortified foods instead.

Description

Calcium supplements are pills people take to increase their calcium levels. But sometimes, instead of helping, they can lead to kidney stones and heart issues. Therefore, it's generally healthier to get your calcium from food like milk, cheese, and leafy green vegetables.

How it helps

In a study of 17,968 participants aged 40-79, calcium supplementation was linked to increased cardiovascular and all-cause mortality in women but not in men. A review of 26 studies and 16 trials found that calcium supplements raised the risk of coronary heart disease by 8%, and by 20% when taken alone. Similarly, they increased the risk of myocardial infarction by 14%, and by 21% when taken alone. Dietary calcium sources did not increase cardiovascular disease risk, but calcium supplements might elevate coronary heart disease risk, particularly for myocardial infarction. Another meta-analysis involving 89,251 participants found no significant associations between supplementation and composite cardiovascular outcomes [\[R, R, R\]](#).

A genetic predisposition to higher serum calcium levels was associated with an increased risk of coronary artery disease and myocardial infarction [\[R, R\]](#).

Please note: calcium competes with iron for absorption in the intestines, potentially exacerbating anemia or making it harder to manage. If you have anemia, consult your healthcare provider before using calcium supplements.

13



Avoid Lead Exposure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Prevent lead exposure by using cold water for drinking and cooking, regularly cleaning dust from windowsills and floors, and ensuring that your home's paint is not chipping if it was built before 1978. For occupations involving potential lead exposure, use protective gear and follow safety protocols. Test your home for lead if it's old or you're concerned about contamination.

Description

Lead is a heavy metal. It is naturally found in the environment in small amounts [\[R\]](#), [\[R\]](#).

Exposure to lead can cause it to build up in the body. A buildup of lead can contribute to oxidative stress and cell damage. This is called **lead poisoning** [\[R\]](#), [\[R\]](#).

Lead is no longer used in the manufacturing of some products like gasoline and paint. However, it can still be found in some pipes, batteries, and the wall paint of older homes [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

A study of 5736 adults associated high blood lead levels with an increased risk of COPD, heart attack, and stroke [\[R\]](#).

Lead accumulation can increase blood pressure, risking heart attack.

14



Coenzyme Q10 and Selenium

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 100 mg of Coenzyme Q10 and 200 mcg of Selenium daily, preferably with a meal to enhance absorption. It is advisable to continue this supplementation regimen for at least 3 to 6 months to observe potential health benefits.

Description

Coenzyme Q10 and selenium are important micronutrients that play vital roles in cellular function and antioxidant defense. Their combined use may support heart health and overall oxidative stress management.

How it helps

According to one study, selenium supplementation (100 micrograms/day for 6 months) may increase blood selenium levels and reduce cardiac deaths in people with acute heart attack [\[R\]](#).

Coenzyme Q10 functions as an antioxidant that helps protect cells from damage, while selenium supports overall heart function. Together, they can enhance cardiac performance.

15



Avoid L-Arginine Supplements

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Do not purchase or consume L-arginine supplements. If you have been taking them, do not purchase or consume any more L-arginine in supplement form going forward.

Description

Avoiding excessive L-arginine supplements is advisable, as high doses may lead to potential side effects and interactions with medications.

How it helps

L-arginine supplements might increase nitric oxide in your body, which can cause blood vessels to widen. But for those recovering from a heart attack, this could put excessive strain on your heart, making recovery more difficult.

Genetically higher arginine levels may be associated with an increased risk of heart attack [\[R\]](#).

Supplementation with L-arginine (Arg), the primary precursor of nitric oxide (NO), increased cardiovascular events and mortality in a small study in patients with acute coronary syndrome [\[R\]](#).

16



Mustard

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate mustard as a supplement by adding 1-2 teaspoons of ground mustard seeds to your daily diet. You can sprinkle it over salads, add it to dressings, or mix it into warm water to drink. Do this consistently every day.

Description

Mustard is a condiment made from the seeds of the mustard plant and is commonly used to enhance the flavor of various dishes. Mustard seeds contain compounds like antioxidants and omega-3 fatty acids, which may support heart health and possess anti-inflammatory properties.

How it helps

In a placebo-controlled trial of 260 patients with suspected acute myocardial infarction, supplementation with mustard oil (alpha-linolenic acid, 2.9 g/day) for 1 year reduced cardiac events (28% vs. 34.7% in the placebo group), nonfatal infarctions (15.0% vs. 25.4% in the placebo group), total cardiac arrhythmias, left ventricular enlargement, and angina pectoris [\[R\]](#).

Mustard seeds are rich in omega-3 fatty acids that may help reduce the risk of heart attacks by decreasing inflammation and preventing clot formation in the blood vessels.

17



Selenium Supplements

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 50 mcg of selenium supplements once daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

50 mcg

Description

Selenium is a trace mineral found in Brazil nuts and many other foods as well as supplements. It is an essential nutrient that plays a crucial role in maintaining the body's antioxidant defenses and supporting thyroid function.

[Selenium](#) supports [\[R\]](#):

- Reproduction
- Thyroid function
- DNA production
- Immune response

Adults should be getting **55 micrograms** of selenium per day. Selenium supplements are available for people who can't meet their needs with a balanced diet [\[R\]](#).

How it helps

In a placebo-controlled trial of 81 acute myocardial infarction patients, selenium supplementation reduced cardiac deaths (0 in the selenium group, 4 in the placebo group) and nonfatal reinfarctions (1 in the selenium group, 2 in the placebo group) during a 6-month follow-up [\[R\]](#).

Selenium acts as an antioxidant, reducing inflammation and plaque buildup in the arteries.

18



Hatha Yoga

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Practice Hatha Yoga for 60 minutes at least twice a week. Choose a quiet, comfortable space and consider guided sessions for beginners or those unfamiliar with the poses. Consistency over a period of months to years is beneficial for appreciating its full effects.

TYPICAL STARTING DOSE

1 hour

Description

Hatha yoga is a gentle and accessible form of yoga that combines physical postures, breathing exercises, and meditation. Practicing hatha yoga regularly can promote flexibility, stress reduction, and overall physical and mental well-being.

How it helps

Hatha yoga involves controlled breathing and poses that reduce stress and improve heart health. Regular practice can lower blood pressure, strengthen the heart, and reduce risk factors contributing to heart attacks, like high cholesterol and stress.

In a study with 70 male STEMI patients aged 45-65, those who underwent standard cardiac rehabilitation (CR) plus Hatha yoga showed notable improvements in spiroergometric stress test parameters, LVEF, echocardiography, and physical capacity compared to the control group. The study observed significant improvements in several heart-related measurements over time in both groups [\[R\]](#).

19



Coenzyme Q10 (CoQ10)

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a 100 mg Coenzyme Q10 (CoQ10) supplement once daily with a meal that contains fat for better absorption.

TYPICAL STARTING DOSE

100 mg

Description

Coenzyme Q10 (CoQ10) is a naturally occurring antioxidant that plays a crucial role in cellular energy production. It is often taken as a supplement to support heart health, improve energy levels, and provide antioxidant protection, especially for individuals with certain medical conditions or as they age.

[Coenzyme Q10](#) (CoQ10) is a compound that helps enzymes work better. By doing so, CoQ10 helps improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Energy levels
- Antioxidant protection
- Heart health
- Muscle strength
- Blood sugar control

The amount of CoQ10 made by your body decreases as you get older. Luckily, you can also get it from food or supplements. Good sources of CoQ10 include [\[R\]](#), [\[R\]](#):

- Organ meats
- Fatty fish
- Whole grains

How it helps

Coenzyme Q10 supplements may help heart health by reducing heart tissue damage from a heart attack and improving energy production in cells. Be mindful that it is not a substitute for medical treatment, but can potentially assist alongside conventional therapies.

Oral treatment with 120 mg/d of coenzyme Q10 for 28 days in 73 patients with acute myocardial infarction (AMI) significantly reduced angina pectoris, arrhythmias, poor left ventricular function, and total cardiac events compared to the placebo group [\[R\]](#).

In the group receiving antioxidative treatment, none of the patients showed a prolongation of the QT-interval. In the control group, 40% had QT-interval prolongation (p < 0.001). Early complications didn't significantly differ. Over a one-year follow-up, 20% in the control group died from re-infarction, while one patient in the supplement group had a non-cardiac death [\[R\]](#).

20



Avoid Air Pollution

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Stay indoors on days when air quality indexes (AQI) indicate high pollution levels, which are often reported by weather services or government environmental agencies. **Install air purifiers** in your home, especially in bedrooms, to reduce indoor pollutants. Limit outdoor exercise when air pollution warnings are issued, opting for indoor activities instead.

Description

Avoiding air pollution by reducing exposure to pollutants in the environment is essential for respiratory and overall health. It can help lower the risk of respiratory diseases, cardiovascular conditions, and other health issues associated with poor air quality.

While city life is convenient in a lot of ways, it comes with some health hazards. Cars, factories, and other sources increase air [pollution](#) [R].

Air pollution plays a role in [R](#), [R](#), [R](#), [R](#), [R](#):

- Lung disease
- Heart disease
- Diabetes
- Asthma
- Skin conditions

How it helps

A meta-analysis of 33 studies found elevated cardiovascular disease risk within hours of exposure to PM2.5, PM10-2.5, O3, and CO. Respiratory disease risk increased with PM2.5 and PM10 exposure. Specific risks appeared for myocardial infarction, cardiac arrest, and heat exposure [R].

A systematic review and meta-analysis of 31 studies found that each 10 µg/m³ increase in PM10 and PM2.5 was associated with a higher risk of MI. PM2.5 posed a greater risk, reaffirming earlier findings. Short-term PM exposure was confirmed as a myocardial infarction risk factor [R].

A meta-analysis of 18,349 participants from 8 cohorts found that a 5 µg/m3 increase in PM2.5 was associated with 1.66% thicker carotid artery intima-media thickness. Each 5 µg/m3 increase in PM2.5 corresponded to 1.04 µm/year greater progression [R].

Air pollutants could trigger inflammation and blood clotting, which may lead to heart attacks.

21



Black Chokeberry

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate black chokeberry (*Aronia melanocarpa*) in your diet by consuming 100-200 grams of fresh berries daily. If using a concentrated form like juice or extracts, follow the manufacturer's instructions, usually around 100 ml of juice or 500 mg of extract per day, for at least 8-10 weeks to observe potential health benefits.

Description

Black chokeberry is a fruit known for its high content of antioxidants and potential health benefits. It may support cardiovascular health and provide immune system support when incorporated into a balanced diet.

How it helps

Black chokeberry is rich in antioxidants and anti-inflammatory properties that aid in reducing cholesterol, maintaining healthy blood pressure, and preventing blood clot formation, all aiding in reducing heart attack risk. Regular consumption can promote heart health by limiting potential heart attack triggers.

In a [placebo-controlled trial of 44 myocardial infarction survivors](#), supplementation with chokeberry flavonoid extract (85 mg, 3x/day) for 6 weeks **reduced CRP, blood pressure 8-isoprostans, Ox-LDL, and MCP-1 while increasing adiponectin** [\[R\]](#).

22



Lemon Oil Aromatherapy

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Place 3-4 drops of lemon oil in a diffuser filled with water, and run the diffuser for 30-60 minutes in your preferred room once daily.

TYPICAL STARTING DOSE

3 drops

Description

Lemon oil aromatherapy involves inhaling the scent of lemon essential oil to enhance mood, reduce stress, and improve focus.

How it helps

In a study of 100 acute myocardial infarction patients, those who received lemon inhalation aromatherapy experienced reduced systolic blood pressure, anxiety, ST-segment and T wave changes, and regulated heart rate [\[R\]](#).

Lemon oil aromatherapy may help by promoting relaxation and reducing stress levels, which is beneficial for heart health.

23



Avoid Cadmium Exposure

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

To avoid cadmium exposure, refrain from smoking or exposure to secondhand smoke, reduce consumption of foods high in cadmium like shellfish, liver, kidney meats, and certain leafy vegetables, and use ceramic or glass containers instead of plastic when microwaving food. Limit intake of cadmium-contaminated workplace air by using protective gear if you work in battery manufacturing, welding, or metal refining industries.

Description

Avoiding cadmium exposure is essential to prevent potential health risks associated with this heavy metal, such as kidney damage and increased cancer risk. Reducing exposure to cadmium-containing products and contaminated foods is crucial.

Heavy metals are elements naturally found in the environment. They are also used for agricultural, industrial, and medicinal purposes. Some can even be found in small amounts in your body [\[R\]](#), [\[R\]](#).

Long-term exposure to high amounts of heavy metals can be harmful to your health [\[R\]](#), [\[R\]](#).

Heavy metals that are most often linked to health problems include [\[R\]](#), [\[R\]](#):

- Lead
- Cadmium
- Arsenic
- Chromium
- Mercury

How it helps

A study found a significant interaction between chronic bronchitis and blood cadmium levels regarding myocardial infarction. For each 1 µg/L cadmium increase, chronic bronchitis individuals had 1.65 times the odds, while those without had 1.24 times the odds, of myocardial infarction [\[R\]](#).

Cadmium can increase blood pressure and cause atherosclerosis, both factors leading to heart attacks.

24



Bilberry

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate bilberry fruits into your diet by eating a small handful, approximately 1/4 to 1/2 cup, daily. You can also consume bilberry in the form of tea, by steeping 1-2 teaspoons of dried bilberries in hot water for about 10 minutes, up to three times a day.

Description

Bilberry is a fruit rich in antioxidants and flavonoids, which may contribute to eye health and circulatory function. It's often used in supplements for its potential to support vision and overall well-being.

How it helps

Bilberry is packed with antioxidants that support heart health, and it can help strengthen blood vessels, which is crucial during recovery from a heart attack. This fruit also aids in lowering the bad LDL cholesterol levels in your body, indirectly minimizing the risk of heart attacks.

In an open-label randomized clinical trial involving 50 patients with acute myocardial infarction (AMI), the use of freeze-dried bilberry (40 g/day, equivalent to 480 g fresh bilberries) in addition to standard medical therapy for 8 weeks, starting 24 hours after percutaneous coronary intervention, led to improved walking distance and favorable changes in lipids. Specifically, the 6-minute walk test distance significantly increased by a mean difference of 38 meters at follow-up, and ex vivo oxidized LDL levels decreased (geometric mean ratio 0.80). However, there were no significant changes observed in CRP, total cholesterol, or LDL cholesterol levels [R].

In an open-label study, bilberry extract (BE) supplementation for 8 weeks reduced platelet and endothelial-derived microvesicles (MVs) in myocardial infarction patients. BE also decreased endothelial vesicle release through P2X7 receptor-related mechanisms, suggesting cardioprotective effects [R].

25



Laughter Therapy

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Dedicate at least 15-30 minutes a day to watch, listen to, or participate in activities that make you laugh, such as watching a comedy show, attending a stand-up comedy event, or engaging in laughter yoga sessions. Consistently incorporate these laughter-inducing activities into your daily routine for an ongoing period to harness the health benefits of laughter.

TYPICAL STARTING DOSE

30 minutes

Description

Laughter therapy has been shown to improve cardiovascular health, reduce stress, and boost the immune system. It can also help to improve mood, relieve pain, and increase social bonding.

How it helps

In a non-placebo-controlled trial of 48 diabetic patients who recently experienced a myocardial infarction, viewing self-selected humor 30 min/day for 1 year reduced myocardial infarction recurrence, blood pressure, and arrhythmia episodes [R].

Laughter therapy helps stimulate heart and blood circulation, reducing your risk of heart attack by improving the function of blood vessels and increasing blood flow. Moreover, it reduces stress hormones in the body, providing a healthier and more relaxed state that lowers the chances of heart problems.

26



D-Serine

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take d-serine as a dietary supplement in doses ranging from 30 to 120 milligrams per kilogram of body weight per day. It is typically consumed in capsule or powder form mixed with water or another beverage. Start with the lower end of the dosage range and adjust based on tolerance and effectiveness, not exceeding the recommended maximum unless directed by a healthcare provider.

Description

D-serine is an amino acid that plays a role in brain function and may be used in supplemental form to support cognitive health.

Serine is a non-essential amino acid that we generally get from our diet through protein sources. It is key to the production of proteins, enzymes and muscle tissue. Serine is needed for the proper metabolism of fats and fatty acids. It also helps in the production of antibodies [\[R\]](#).

Serine is used as a natural moisturizing agent in some cosmetics and skin care products, as well as for certain psychiatric and neurological disorders [\[R\]](#), [\[R\]](#).

How it helps

Certain gene variants have been associated with an increased risk of heart attack in people with low blood serine levels [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Your [MTHFD1](#) gene variant has been associated with an increased risk of heart attack in people with low blood serine levels [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
MTHFD1	rs2236225	GA	

27



Glycine

IMPACT

1 / 5

EVIDENCE

0 / 5

How to implement

Take 3 to 5 grams of glycine supplement per day with water, preferably before bedtime for sleep improvement or spread throughout the day for general health benefits. Continue indefinitely as needed, but consult a healthcare provider for long-term use beyond three months.

TYPICAL STARTING DOSE

3 g

Description

Glycine is an amino acid that may have calming and anti-inflammatory effects, potentially benefiting sleep quality and joint health.

If you can't get enough glycine from food sources, glycine supplements are available. Daily doses of up to **6 g** have been safely used for up to **4 weeks**. Consult your doctor before supplementing.

How it helps

Low blood glycine levels may increase the risk of heart attack more in people with certain gene variants [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Low blood glycine levels may increase the risk of heart attack more in people with your [MTHFD1](#) gene variant [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
MTHFD1	rs2236225	GA	

28



Berries

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate a variety of berries such as strawberries, blueberries, raspberries, and blackberries into your daily diet. Aim for at least one cup of fresh or frozen berries every day, either as a snack, part of your breakfast (such as in oatmeal or yogurt), or as a dessert.

Description

Berries, such as strawberries, blueberries, and raspberries, are packed with antioxidants, vitamins, and fiber. Regular consumption of berries may support heart health, improve cognitive function, and contribute to overall well-being.

How it helps

Berries, such as strawberries and blueberries, are rich in antioxidants and vitamins that may lower blood pressure and increase good cholesterol levels.

29



Avoid Strenuous Activity

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Refrain from participating in high-intensity physical activities such as running, heavy weightlifting, and high-impact sports. Opt instead for low-impact exercises like walking, swimming, or yoga. It's important to listen to your body's signals and rest as needed, avoiding these strenuous activities until advised otherwise by a health professional.

Description

Avoiding strenuous physical activity in certain medical conditions or during illness can help prevent injury and promote better recovery. It allows the body to conserve energy and supports the healing process.

Strenuous activity is physical activity that requires a lot of effort. Exercise done at 70-85% of a person’s heart rate is considered strenuous. Examples include [\[R\]](#):

- Running, cycling, or swimming at high speed
- Running or hiking uphill
- Jumping rope
- Single tennis
- Sports that involve a lot of running (soccer, basketball, hockey, etc.)

On the other hand, strenuous daily activities include [\[R\]](#):

- Lifting and carrying heavy objects
- Gardening with heavy digging
- Shoveling snow
- Fast dancing

How it helps

Initially after a heart attack, strenuous activity should be avoided to prevent unnecessary stress on the heart.

30



Practice Exercise Snacks

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Integrate short bursts of physical activity, each lasting about 1 to 2 minutes, into your daily routine at least two to three times a day. These 'exercise snacks' can include activities like doing a set of stairs, rapid bodyweight exercises, pull-ups, push-ups, sit-ups, or brisk walking.

TYPICAL STARTING DOSE

1 minutesute

Description

Staying physically active is essential for maintaining overall health and well-being. **Exercise snacks** are brief, frequent bursts of physical activity integrated into daily routines, helping combat the health risks associated with prolonged sitting and sedentary behavior, such as obesity and cardiovascular issues. Examples include taking the stairs or doing quick exercises during work breaks.

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

Exercise snacks are short, quick bursts of physical activity performed throughout the day, designed to break up prolonged periods of sitting or inactivity. These brief bouts of exercise can be as short as a few minutes and are incorporated into daily routines to boost overall physical activity levels.

Exercise snacks are crucial for health because they combat the negative effects of sedentary behavior, such as prolonged sitting, which is associated with an increased risk of obesity, cardiovascular diseases, diabetes, and musculoskeletal issues. They help improve blood circulation, regulate blood sugar levels, and enhance mood and cognitive function.

Examples of exercise snacks include taking the stairs instead of the elevator, doing a few minutes of bodyweight exercises (e.g., squats or push-ups) during work breaks, or walking briskly for a few minutes after meals. These short, frequent bursts of activity contribute to a more active lifestyle and can significantly benefit overall health by reducing the risks associated with excessive sitting.

How it helps

Regular moderate physical activity supports heart health by improving blood flow and lowering the risk of heart disease.

31



Whole Grains

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate at least three servings of whole grains into your daily diet. This can include consuming foods such as whole grain bread, brown rice, whole grain pasta, and oats. Aim to replace refined grains with whole grains at each meal for optimal benefits.

Description

Whole grains encompass a variety of grains like wheat, oats, and quinoa, where the entire grain kernel is intact. They are rich in fiber, vitamins, minerals, and antioxidants, supporting heart health and reducing the risk of chronic diseases.

Unlike refined grains, whole grains contain nutritious parts of the grain like bran and germ.

Whole grains provide many crucial nutrients, including:

- Fiber
- B-vitamins
- Iron
- Magnesium
- Phosphorus

Due to their high fiber content, whole grains don’t tend to spike blood sugar like refined grains do.

How it helps

Whole grains are rich in fiber, which can help lower cholesterol and reduce the risk of heart disease.

32



Avoid Substance Abuse

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Eliminate the use of illegal drugs, excessive alcohol, and tobacco from your daily routine. Seek professional help if needed to stop substance use and engage in support groups or counseling for sustained recovery. Implement this change permanently for long-term health benefits.

Description

Substance abuse is the excessive use of alcohol or drugs. It can lead to dependence on the substance. Abusing drugs or alcohol can have long-term health and social consequences.

Substance abuse is the excessive use of alcohol or drugs. It can lead to dependence on the substance [\[R\]](#).

Abusing drugs or alcohol can have long-term health and social consequences [\[R\]](#).

How it helps

Substance abuse can lead to additional heart strain and complications, hindering recovery post-heart attack.

33



Legumes

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate a serving of legumes, such as beans, lentils, chickpeas, or peas, into your diet at least four times a week. A serving size is approximately half a cup cooked. Ensure to prepare them properly by soaking and rinsing beans, if applicable, to reduce anti-nutrients and improve digestibility.

Description

Legumes, such as beans, lentils, and chickpeas, are excellent sources of plant-based protein, fiber, and various vitamins and minerals. Including legumes in your diet can promote satiety and support digestive health.

Legumes are plants from the *Fabaceae* family. Their edible seeds are called **pulses**. Legumes are important food staples and sources of carbohydrates, fiber, protein, iron, and other key nutrients.

Common legumes include:

- Peanuts
- Beans
- Chickpeas
- Peas
- Lentils

How it helps

Legumes such as beans, lentils, and peas are a great source of fiber and protein that may help lower cholesterol and improve overall heart health.

34



Strength Training

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Engage in strength training exercises, such as weight lifting or bodyweight exercises, for 60 minutes per session, 2 to 3 times per week. Ensure you work all major muscle groups and rest each muscle group for at least 48 hours before exercising it again.

TYPICAL STARTING DOSE

1 hour

Description

Strength training, also called resistance or *anaerobic* training, contracts the muscles against an external resistance for short periods of time. This helps gain muscle strength, tone, and mass. This can include activities like weight lifting, pushups, and crunches.

Strength training, also known as resistance training, is a type of physical exercise that uses resistance to build strength, anaerobic endurance, and size [R]. Some of the most common strength training methods include [R]:

- Weight lifting
- Bodyweight exercises like push-ups, pull-ups, squats, and lunges.
- Resistance bands
- Plyometrics or explosive force exercises

The benefits of strength training are numerous, and include [R]:

- Increased muscle strength
- Improved bone health
- Reduced risk of injury
- Improved balance and coordination
- Enhanced mood
- Boost metabolism

Consult with a doctor before starting any new exercise program, especially if you have any health conditions.

How it helps

Under proper guidance, it can help maintain healthy body composition and improve cardiovascular efficiency.

35



Limit Caffeine Intake

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Limit your caffeine consumption to less than 200 milligrams per day, equivalent to about two 6-ounce cups of coffee. Aim to avoid caffeine-containing foods and beverages such as tea, chocolate, and some soft drinks, especially in the late afternoon and evening to minimize sleep disturbances.

Description

Although caffeine is the world's most popular stimulant, some people choose to limit or avoid it due to potential adverse effects on their sleep, mood, or blood pressure.

How it helps

Caffeine may increase the risk of heart attack more **in people with certain gene variants** [\[R\]](#).

36



Fruits And Vegetables

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Increase your intake of fruits and vegetables to at least five servings per day, aiming for a variety of types and colors to ensure a broad range of nutrients. Each serving size should roughly be the amount you can fit in one hand. Try to incorporate at least one serving of fruits or vegetables into every meal and snack throughout the day.

Description

A diet rich in fruits and vegetables provides essential nutrients, antioxidants, and dietary fiber. This combination supports overall health, helps maintain a healthy weight, and reduces the risk of chronic diseases such as heart disease and certain cancers.

How it helps

A diet rich in fruits and vegetables provides essential vitamins, minerals, and fiber, which can help improve heart health and reduce the risk of heart disease.

37



Dietary Omega-3 Fatty Acids

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate foods high in omega-3 fatty acids into your diet daily. This includes eating fish such as salmon, mackerel, and sardines at least twice a week. Alternatively, include a tablespoon of flaxseed oil or chia seeds in your daily diet.

Description

[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. **EPA and DHA are vital for mental and heart health** [\[R\]](#), [\[R\]](#), [\[R\]](#).

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

- Salmon
- Tuna
- Herring
- Sardines

For optimal health, 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-3 fatty acids, found in fatty fish like salmon and mackerel, have been associated with reduced risk of heart disease through lowering inflammation and triglyceride levels.

38



Walking

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate at least 30 minutes of brisk walking into your daily routine, aiming for a minimum of five days a week. This can be done in one continuous session or broken into shorter periods, such as three 10-minute walks throughout the day.

TYPICAL STARTING DOSE

30 minutes

Description

Walking is a low-impact form of exercise that can contribute to cardiovascular fitness, weight management, and improved overall health. It is used to support physical activity goals, enhance mood, and promote better cardiovascular health.

How it helps

Is a low-impact aerobic activity that can help to strengthen the heart and improve circulation.

39



Sleep for 7+ Hours

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Ensure you allocate enough time in your schedule to achieve a minimum of 7 hours of sleep each night. This might involve going to bed earlier or adjusting your evening routine to promote relaxation and make it easier to fall asleep.

Description

Optimizing sleep involves adopting healthy sleep habits and creating a sleep-conducive environment to ensure restorative and sufficient sleep duration. It supports cognitive function, mood stability, and overall physical health. Most experts recommend getting **at least 7 hours of good-quality sleep each night**.

[Sleep](#) supports your body and mind [\[R, R\]](#). More precisely, sleep helps:

- Support brain health [\[R, R\]](#)
- Maintain a healthy weight and appetite [\[R, R, R\]](#)
- Regulate blood pressure [\[R, R\]](#)
- Balance blood sugar [\[R, R\]](#)

Ways to sleep better include [\[R\]](#):

- Reducing your bright light exposure (screen time) in the evenings
- Sticking to a regular sleep schedule
- Avoiding hunger or large meals before bed
- Avoiding nicotine, caffeine, and alcohol before bed
- Maintaining a sleep area that’s cool, dark, and quiet

How it helps

Quality sleep supports overall heart health and helps regulate stress hormones.

40



Oats

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate oats into your diet daily by having them for breakfast as oatmeal, or adding them to smoothies, baking recipes, or overnight oats. Aim for at least a half-cup (40 grams) of dry oats to reap the health benefits.

Description

Oats are a whole grain known for their high fiber content and nutritional value, like zinc, iron, and manganese. Including oats in one's diet can promote heart health, stabilize blood sugar levels, and provide sustained energy.

Oats are a good source for manganese, zinc, iron, magnesium, and vitamins B1 and B5. A ½ cup serving provides 0.7 mg of manganese or 30%DV.

How it helps

Oats are a source of soluble fiber, which can lower cholesterol levels and support heart health.

41



Leafy Green Vegetables

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate at least one serving of leafy green vegetables, such as spinach, kale, or Swiss chard, into your diet daily. This can be done by adding them to salads, smoothies, or as a side dish to your meals.

Description

Leafy green vegetables like spinach and kale are packed with vitamins, minerals, and antioxidants. Incorporating them into your diet can promote overall health by providing essential nutrients, supporting digestion, and reducing the risk of chronic diseases like heart disease and certain cancers.

Leafy green vegetables, also called leafy greens, or greens, are edible plant leaves, which can include stalks and shoots as well. Common examples include: lettuce, spinach, kale, chard, endive, and fennel.

Leafy greens contain a host of vitamins and minerals, as well as fiber. Most of them are a particularly good source of vitamin K.

How it helps

Leafy greens like spinach and kale are high in vitamins, minerals, and antioxidants that support heart health by reducing blood pressure and arterial stiffness.

42



DASH Diet

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Adopt a dietary pattern that emphasizes fruits, vegetables, whole grains, lean proteins, and low-fat dairy, while reducing sodium, red meat, sweets, and sugary beverages. Aim for 4-5 servings of both fruits and vegetables per day, 6-8 servings of grains (with at least half being whole grains), and 2-3 servings of low-fat dairy. This diet should be followed daily to manage blood pressure effectively.

Description

The DASH (Dietary Approaches to Stop Hypertension) diet is a dietary plan designed to reduce high blood pressure. It emphasizes fruits, vegetables, lean proteins, and whole grains while limiting sodium intake.

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

It **limits salt, sweets, and saturated fat**, while promoting the intake of [\[R\]](#):

- 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)

The DASH diet focuses on fresh, minimally processed food rich in nutrients. Magnesium, calcium, and potassium-rich foods are particularly important due to their beneficial effects on the heart and blood vessels [\[R\]](#).

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 Dietary Approaches to Stop Hypertension (DASH) diet emphasizes fruits, vegetables, whole grains, and lean proteins, and it has been shown to reduce blood pressure and improve heart health.

43



Avoid Choline Supplements

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Do not consume any dietary supplements that list choline as an ingredient. This includes pills, powders, or liquid forms of supplements that are specifically choline or contain choline among other ingredients.

Description

Choline supplements are a type of vitamin-like nutrient that some people take. However, it's recommended to avoid these if unnecessary. Overdosing on choline can negatively affect your heart health, increase body temperature and possibly even cause a decline in your cognitive function. Always consult your doctor before starting any new supplement regimen.

How it helps

Choline supplements may increase the production of a gut bacteria byproduct called trimethylamine N-oxide (TMAO), which has been linked to heart disease. By avoiding these supplements, you may lower the risk of heart attack.

We found that elevated choline level had a causal relationship with VHD [odds ratio (OR) = 1.087, 95% confidence interval (CI), 1.003-1.178, P = 0.041] and **MI (OR = 1.250, 95% CI, 1.041-1.501, P = 0.017)** [\[R\]](#).

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Limit Salt Intake

IMPACT

0 / 5

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

Reducing salt intake can help prevent hypertension, a major risk factor for heart disease.

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Avoid Illicit Drugs

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Refrain from using any illegal substances, including but not limited to, narcotics, stimulants, hallucinogens, and cannabis where it's not legalized. This means not purchasing, possessing, or consuming these substances in any form or amount. Commit to this practice indefinitely for long-term health benefits.

Description

Avoiding the use of illicit drugs is essential for preserving physical and mental health, as these substances can lead to addiction, mental health disorders, and other physical health issues. Abstaining from their use supports a safer and healthier lifestyle.

Illicit drugs are highly addictive, illegal drugs. Examples include **marijuana, cocaine, meth, and MDMA (ecstasy)**. The term can also refer to a non-medical use of drugs that are legally available (e.g., medical marijuana in some countries and states) [\[R\]](#).

Illicit drug use can have a **devastating impact on all aspects of your health and wellbeing**. It can lead to [\[R\]](#):

- Dependence and addiction
- Injury and accidents
- Health and sleep problems
- Problems in family and social life

How it helps

Substances like cocaine can increase heart rate and blood pressure, which can be harmful post-heart attack.

Next Steps

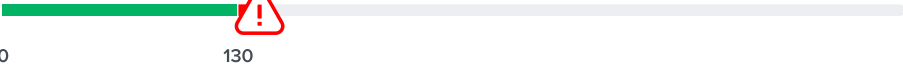
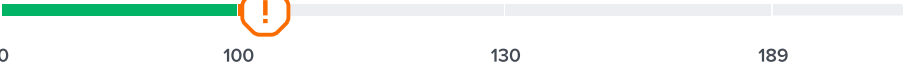
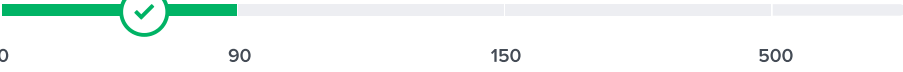
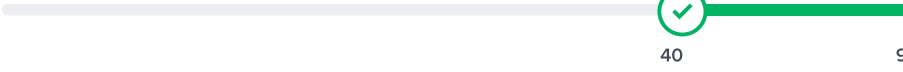
Remember, your genes only tell one important part of your health story!

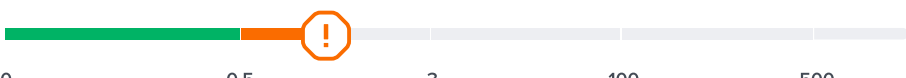
Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

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.

	TSH	2.76 mIU/mL		9 Nov 2025
	WBC	6.92 x10^3/mm3		9 Nov 2025
	Non-HDL Cholesterol	140 mg/dL		9 Nov 2025
	LDL Cholesterol	103 mg/dL		9 Nov 2025
	Glucose, Fasting	97 mg/dL		9 Nov 2025
	Triglycerides	54 mg/dL		9 Nov 2025
	HDL Cholesterol	42 mg/dL		9 Nov 2025
	Homocysteine	12.84 umol/L		9 Nov 2025
	Creatine Kinase	173 IU/L		9 Nov 2025

	Lipoprotein(a)	85.6 mg/dL		9 Nov 2025
	hs-CRP	1.6 mg/L		9 Nov 2025
	ApoB	108 mg/dL		9 Nov 2025