

Aortic Aneurysm

Disease Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

Table of Contents

03 How this works

- 04 Impact
- 05 Evidence
- 06 Some things to keep in mind

07 Introduction

08 Your genetics

09 Your recommendations

19 Next Steps

- 19 Your Lab Results

Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

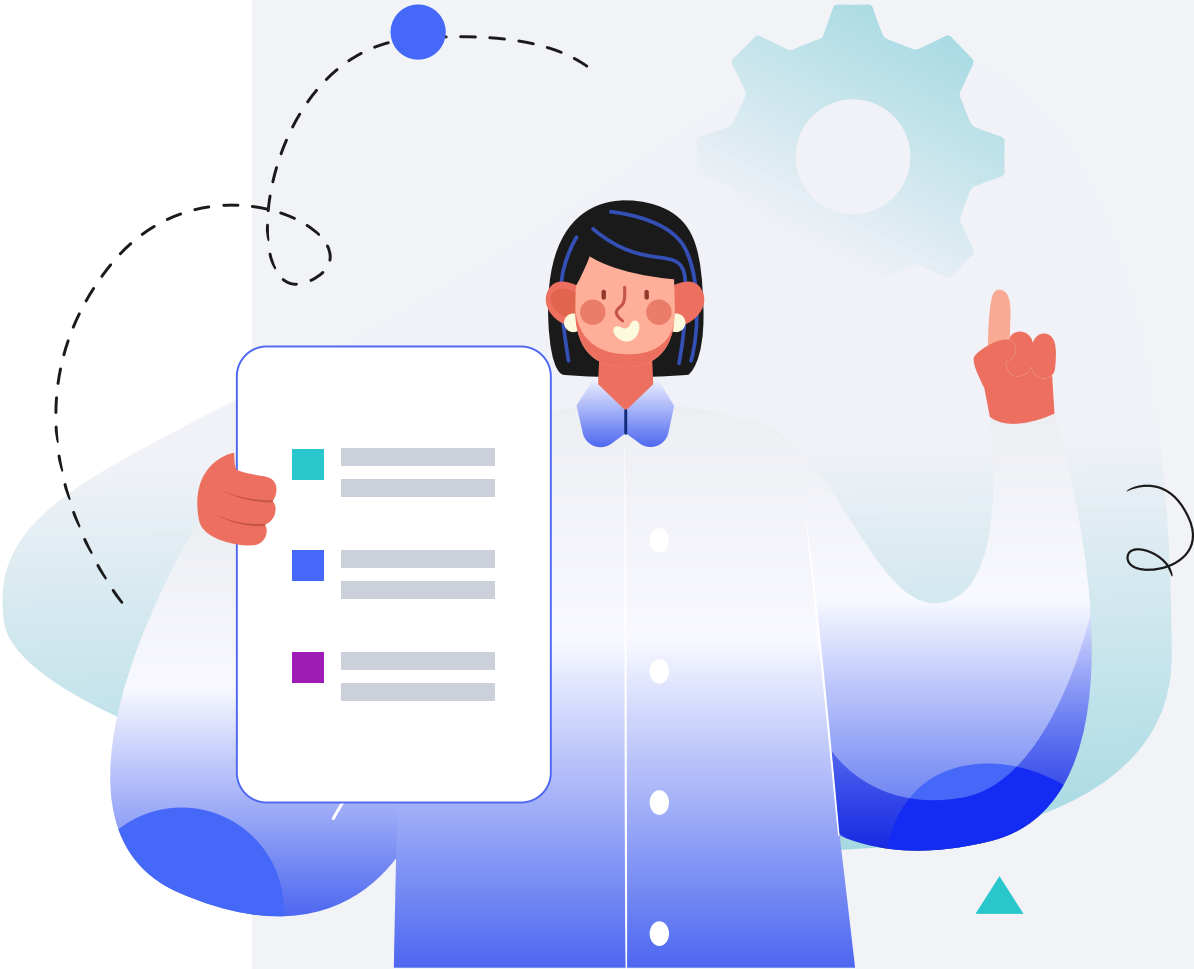
5ft 5" 165cm

WEIGHT

137lb 62kg

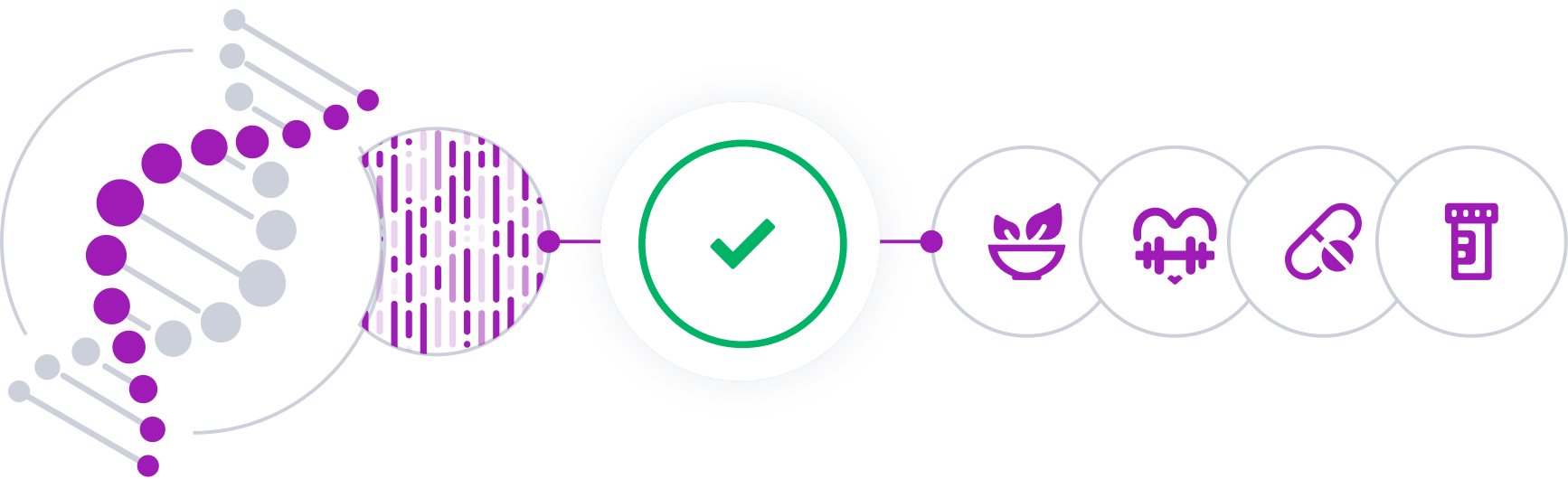
DISCLAIMER

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



How this works

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

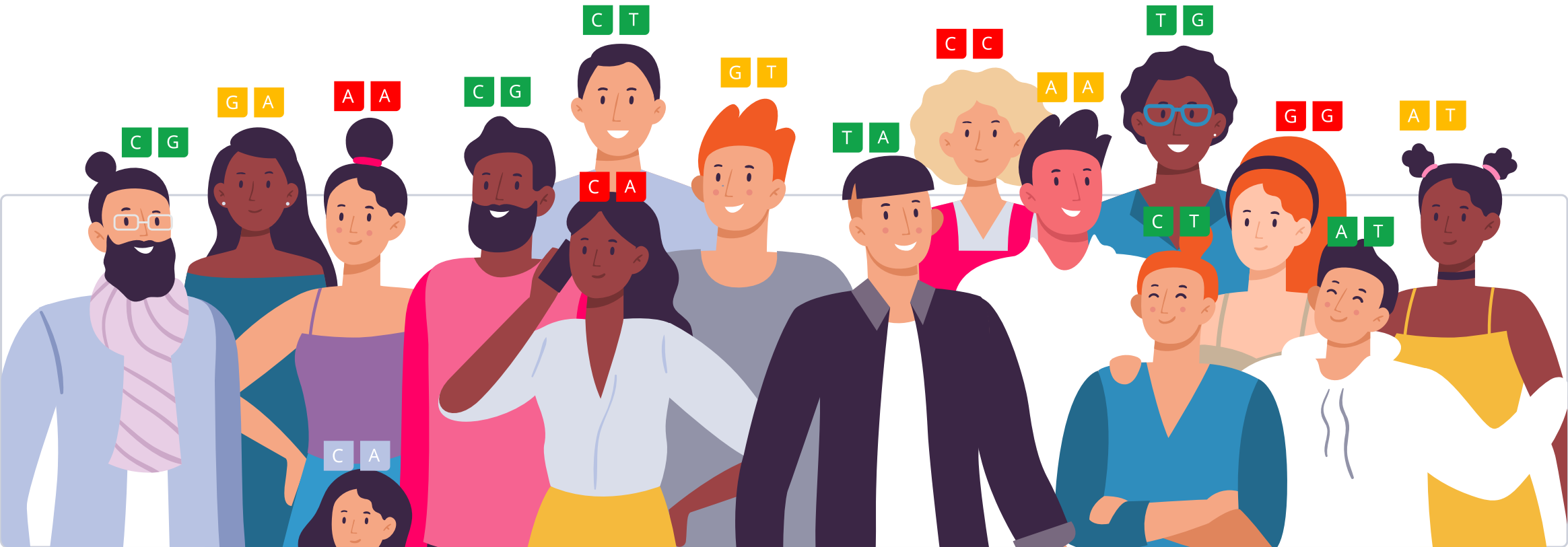


Similarly, our Trait Reports look at how your DNA influences your traits.



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

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



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

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

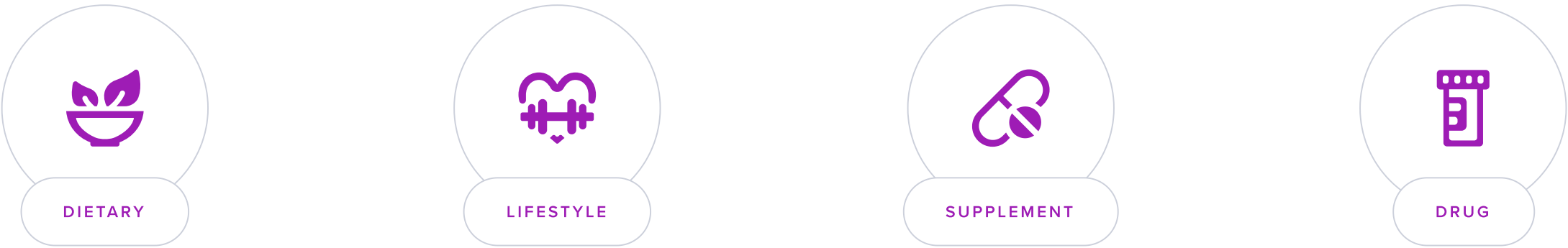
You have 2 risk alleles

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

An aortic aneurysm is a bulge that occurs in the wall of the body's main artery, which carries blood from the heart to the rest of the body: the aorta. Types of aortic aneurysm include [\[R\]](#):

- Abdominal aortic aneurysm: if it occurs along the part of the aorta that passes through the belly area.
- Thoracic aortic aneurysm: if it occurs occurs along the part of the aorta that passes through the chest cavity.

Many aortic aneurysms are asymptomatic and can go undetected until they are discovered during medical exams for other reasons. When symptoms do occur, they may include:

- Abdominal aortic aneurysm: Deep, constant pain in the abdomen or on the side of the abdomen, back pain.
- Thoracic aortic aneurysm: Pain in the jaw, neck, upper back, or chest.

The primary danger of an aortic aneurysm is rupture, which can lead to life-threatening internal bleeding. Having an aortic aneurysm also increases the risk of developing a tear in the inner layer of the wall of the aorta (aortic dissection).

About Aneurysm

Several factors can increase the risk of developing an aortic aneurysm, including:

- Aging: The risk increases with age, particularly after 65.
- Tobacco use: Smoking is a significant risk factor, dramatically increasing the chances of developing an aneurysm.
- High blood pressure: Elevated blood pressure can damage the aortic wall, leading to an aneurysm.
- Genetic factors: A family history of aortic aneurysm increases the risk.
- Atherosclerosis: The build-up of plaques in the artery walls can weaken them and contribute to aneurysm formation.
- Gender: Men are more likely to develop aortic aneurysms than women.

Treatment depends on the size and rate of growth of the aneurysm:

- Small, slow-growing aneurysms: These may be monitored regularly without immediate surgery, with efforts focused on controlling blood pressure and reducing other risk factors.
- Large or fast-growing aneurysms: Surgical repair may be required. This can involve replacing the affected section of the aorta with a synthetic tube (graft), which is done through open surgery or a less invasive procedure called endovascular surgery.

Preventive strategies involve regular medical check-ups, especially for those with risk factors, managing blood pressure, quitting smoking, and maintaining a healthy lifestyle to minimize the chances of an aneurysm developing or worsening.



TYPICAL LIKELIHOOD

Typical likelihood of aortic aneurysm based on 960,609 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CDKN2B	rs7866503	TT
FBN1	rs595244	TC
RBBP8	rs8087799	AG
ANKRD44	rs919433	AG
/	rs143235478	GG
CDKN2A	rs2891168	GG
SORT1	rs12740374	GG
IL6R	rs12133641	AA
FGF9	rs12869493	CT
DAB2IP	rs10985349	TT
CTAGE1	rs34316398	DEL(C)G
SMYD2	rs1660371	TA
FGF9	rs9316871	AG
SMYD2	rs1795061	TC
STAT6	rs1385526	CG
LPA	rs10455872	AA
PCSK7	rs662799	AA
CHRNA5	rs58365910	TT
DAB2IP	rs5900493	DEL(G)DEL(G)
LDLR	rs6511720	GG
CDKN2A	rs10757274	GG
PLTP	rs58749629	GG
SORT1	rs602633	GG
MCM8	rs6516091	GG
ERG	rs2836411	CC
LDAH	rs13382862	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	Aerobic Exercise (Cardio)	1 hour	2	Avoid Strenuous Activity	
3	Rutin		4	Walking	30 minutes
5	Exercise At Least One Hour a Day	1 hour	6	Avoid Rapid Weight Changes	
7	Dietary Omega-3 Fatty Acids		8	Stress Management Therapy	1 hour
9	Avoid Lifting Heavy Objects		10	Mediterranean Diet	
11	Avoid High-Impact Exercise		12	Avoid Secondhand Smoke	

1



Aerobic Exercise (Cardio)

IMPACT3 / 5

EVIDENCE3 / 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

Regular physical activity may reduce the risk of abdominal aortic aneurysm [\[R\]](#).

In patients with this condition, aerobic exercise may improve aerobic capacity and some cardiovascular risk factors (CRP and triglycerides) [\[R, R\]](#).

Aerobic exercise may help by keeping the blood vessels flexible and strong.

2



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

Strenuous activities can rapidly elevate blood pressure, which increases the risk of an aortic aneurysm rupturing. Avoiding such activities keeps blood pressure more stable.

3



Rutin

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 500mg of rutin supplement daily, preferably with a meal to enhance absorption. Continue this supplementation regularly for at least 4 weeks to evaluate its benefits on your health, as effects may take some time to become noticeable.

Description

Rutin is a flavonoid found primarily in citrus fruits, buckwheat, and tea, and is known for its antioxidant and anti-inflammatory properties. It may support cardiovascular health and promote strong blood vessels.

How it helps

Rutin may help in strengthening blood vessels, potentially reducing the risk of aneurysms. It has antioxidant properties that can prevent the weakening of vessel walls by neutralizing damaging free radicals.

4



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

Walking is a moderate form of exercise that helps to keep blood pressure in check without putting too much strain on the heart or the aneurysm. It also promotes overall cardiovascular health.

5



Exercise At Least One Hour a Day

IMPACT

0 / 5

EVIDENCE

0 / 5

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

Moderate exercise helps in maintaining a healthy blood pressure and strengthening the cardiovascular system, reducing the risk factors associated with aortic aneurysms.

6



Avoid Rapid Weight Changes

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Maintain a consistent, healthy weight by avoiding extreme dieting or sudden increases in food intake. Aim for gradual weight changes, not exceeding 1-2 pounds per week, by adjusting your diet and physical activity levels accordingly. This approach should be sustained over a long-term period to ensure health and prevent potential adverse effects on the body.

Description

Avoiding extreme and rapid weight changes, whether through crash diets or excessive calorie restriction, is essential for preventing negative health consequences such as nutritional deficiencies and metabolic disruptions.

Your weight is determined by the number of calories you consume compared to those you burn. Changes in exercise frequency, amount and type of food consumed, and alcohol intake may alter your energy expenditure. This may cause small weight fluctuations [\[R\]](#).

Some people may gain or lose weight at a faster rate. Rapid weight fluctuations may be due to [\[R\]](#), [\[R\]](#):

- Very drastic diets
- Water retention or dehydration
- Hormonal changes
- Pregnancy
- Taking certain medications
- Certain health conditions

How it helps

Rapid weight gain or loss can put extra pressure on the blood vessels and heart, exacerbating the condition. Maintaining a stable weight helps to prevent added stress on the aorta.

7



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 fish and certain plant oils, have been shown to reduce inflammation and improve vascular health. This can help prevent the weakening of arterial walls associated with aortic aneurysms.

8



Stress Management Therapy

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Engage in stress management therapy sessions, such as cognitive-behavioral therapy (CBT), for at least 1 hour per week over a course of 8 to 12 weeks. Techniques can include mindfulness, deep breathing exercises, and identifying stressors to develop coping strategies.

TYPICAL STARTING DOSE

1 hour

Description

Stress management therapy refers to various techniques and approaches aimed at reducing and coping with stress. It can improve mental and physical well-being by helping individuals better manage the effects of stress on their health.

How it helps

Stress management therapy can help reduce blood pressure and overall stress levels, which are risk factors for exacerbating an aortic aneurysm. Lowering stress can help prevent worsening of the aneurysm.

9



Avoid Lifting Heavy Objects

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Refrain from picking up items that require significant strain or exertion, typically defined as those weighing more than 25 pounds (11 kilograms), to avoid unnecessary pressure on your body. This restriction should be adhered to as long as your healthcare provider advises, which may be indefinitely for chronic conditions or for a specific recovery period following surgery or injury.

Description

Avoiding improper lifting techniques when handling heavy objects can help prevent back injuries and musculoskeletal strain. Practicing safe lifting methods and using proper equipment promotes spine and musculoskeletal health.

How it helps

Lifting heavy objects can cause a sudden increase in blood pressure, which puts stress on the aorta. This is especially risky for people with aortic aneurysms.

10



Mediterranean Diet

IMPACT

0 / 5

EVIDENCE

0 / 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 rich in fruits, vegetables, whole grains, and healthy fats, which can improve overall cardiovascular health. It emphasizes anti-inflammatory and antioxidant-rich foods that help maintain the integrity of blood vessels, potentially reducing the risk of aortic aneurysm.

11



Avoid High-Impact Exercise

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Opt for low-impact activities such as swimming, cycling, or walking instead of running or jumping exercises. Engage in these alternative exercises for at least 150 minutes per week, spread out over several days to ensure rest periods between sessions.

Description

For individuals with certain medical conditions or joint issues, avoiding high-impact exercise can help prevent injuries and joint strain. Choosing lower-impact activities like swimming or cycling can provide similar cardiovascular benefits while minimizing the risk of overuse injuries.

How it helps

High-impact exercises, which involve sudden and forceful movements, can increase blood pressure suddenly and stress the walls of blood vessels. This might pose a risk to individuals with an existing aneurysm as it could contribute to aneurysm growth or rupture. Therefore, avoiding such activities may reduce these risks.

12



Avoid Secondhand Smoke

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Implementing a smoke-free lifestyle involves communicating your needs to family, friends, and coworkers, requesting they respect your choice by smoking away from you. At home, establish strict no-smoking policies indoors. When out, choose smoke-free venues and accommodations. Advocate for smoke-free environments in your community and support legislation that promotes public health by reducing exposure to secondhand smoke. Utilize air purifiers at home to reduce any residual particles.

Description

Avoiding secondhand smoke is crucial for maintaining good health. Exposure to secondhand smoke can lead to respiratory problems, cardiovascular disease, and an increased risk of lung cancer, even in non-smokers. Protecting oneself from secondhand smoke involves staying away from smoking areas, ensuring smoke-free environments at home and work, and advocating for smoke-free policies in public spaces.

How it helps

Secondhand smoke can damage blood vessels and increase the risk of cardiovascular diseases, including aortic aneurysms. Avoiding it helps in maintaining healthier arteries.

Next Steps

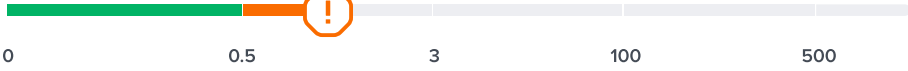
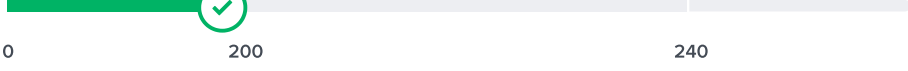
Remember, your genes only tell one important part of your health story!

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.

	Homocysteine	12.84 umol/L		9 Nov 2025
	Lipoprotein(a)	85.6 mg/dL		9 Nov 2025
	hs-CRP	1.6 mg/L		9 Nov 2025
	Cholesterol, Total	182 mg/dL		9 Nov 2025