SelfDecode™

Bradycardia

Disease Report

REPORT CATEGORY

HEART & BLOOD VESSELS

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

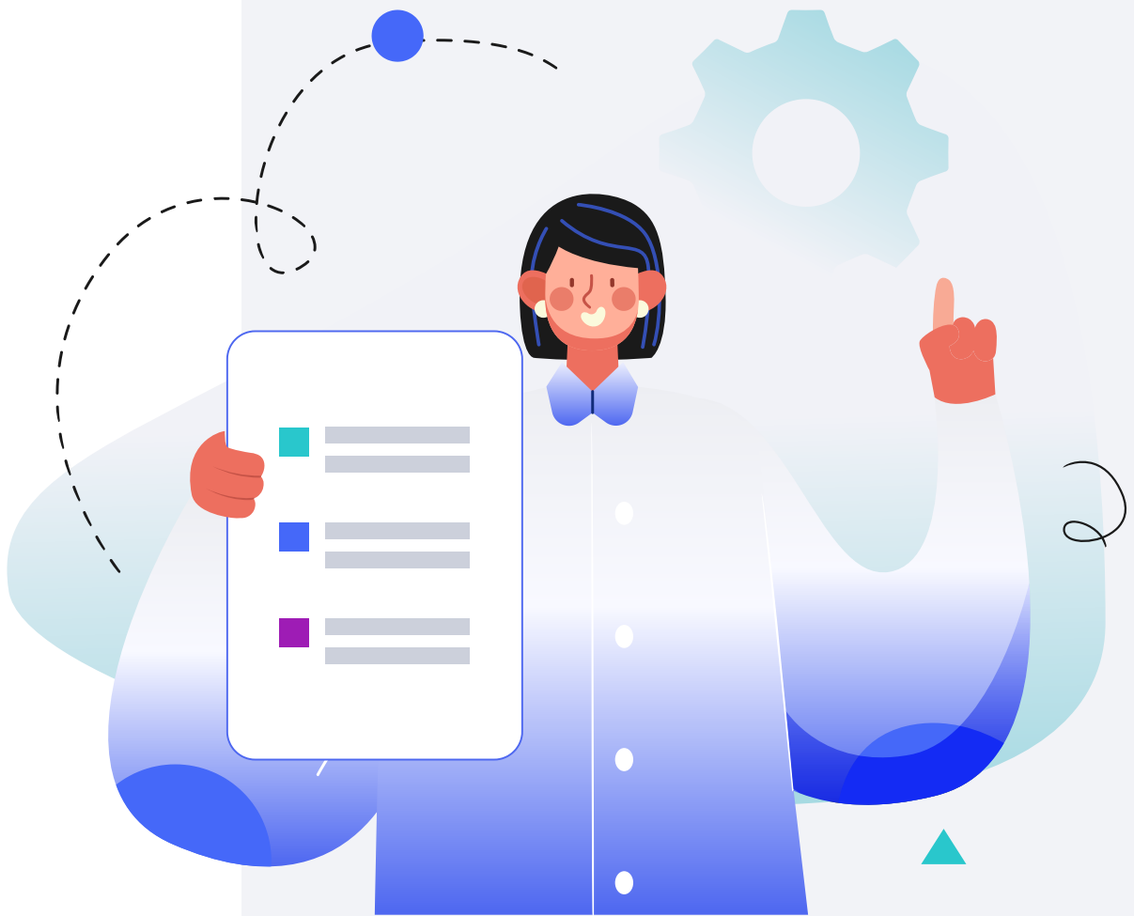
Male

HEIGHT

5ft 5" 165cm

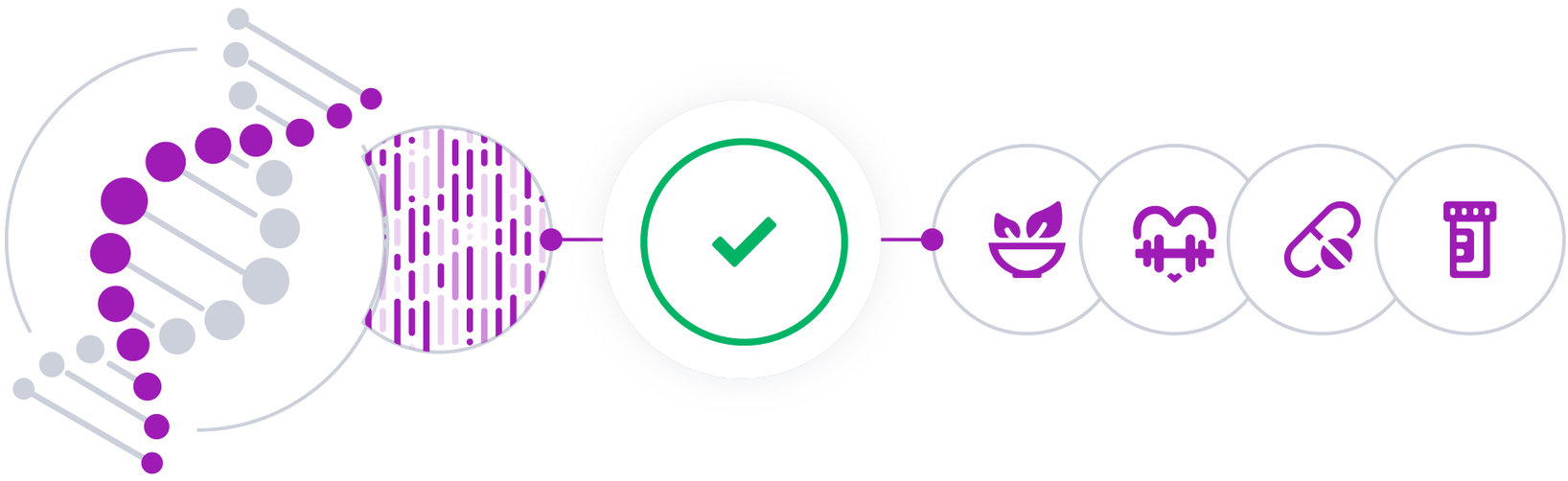
WEIGHT

137lb 62kg



How this works

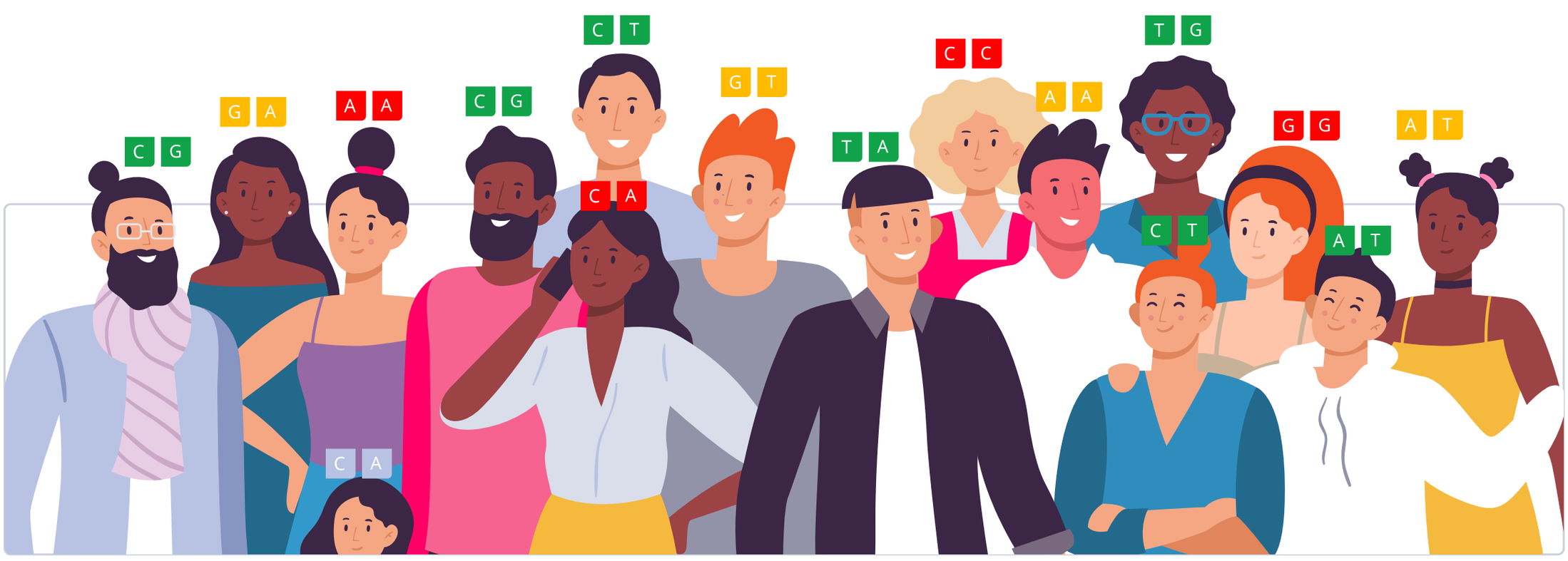
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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 3 / 5

EVIDENCE 4 / 5

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, afew 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

Bradycardia is a medical condition characterized by a slower than normal heart rate, typically defined as a heart rate of fewer than 60 beats per minute in adults. This can occur in otherwise healthy individuals, particularly those who are physically fit or athletes, as their hearts may be more efficient at pumping blood.

However, bradycardia can also be an indication of an underlying health issue, especially if it results in insufficient blood flow to meet the body's needs. Symptoms may not always be present, but when they occur, they can include fatigue, dizziness, lightheadedness, shortness of breath, chest pains, and confusion or memory problems.

Causes and Management

The causes of bradycardia vary and can include changes in the heart resulting from aging, damage to heart tissues from heart disease or a heart attack, congenital heart defects, electrolyte imbalances, or certain medications that can affect the heart's rhythm such as beta-blockers. When bradycardia is symptomatic, it may necessitate medical intervention.

Treatment options are based on the underlying cause and may range from medication adjustments to the implantation of a pacemaker, which serves to ensure the heart rate does not fall below a predetermined threshold, thus maintaining an adequate heart rate for proper bodily function.

TYPICAL LIKELIHOOD

Typical likelihood of bradycardia based on 1,673 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
GJA1	rs17052912	CA
ENPEP	rs33966350	GG
BCO1	rs143238312	GG
BIN2	rs142121602	CC
EPS8L1	rs144463157	GG
RPGRIP1L	rs139974543	GG
CGN	rs41272459	GG
DHX38	rs11554765	CC
URB2	rs41310553	GG
CACNA1S	rs142356235	CC
ZNF100	rs138292237	GG
PKD1	rs147350387	GG
CD109	rs148575660	AA
FOXM1	rs28990715	GG
DYNC2H1	rs144717489	GG
LRRC69	rs72666050	TT
EPRS1	rs114015346	TT
TRPM1	rs141540242	GG
RBL2	rs76818213	GG
VPREB1	rs11089977	AA
SCUBE2	rs72547298	GG
SNCAIP	rs140850272	GG
PNRC1	rs2231267	CC
GFM2	rs35080306	GG
BMPER	rs10249320	CC
DSG1	rs117656447	TT
RRP9	rs115426717	TT
RFX7	rs33984059	AA
POLQ	rs41540016	CC
CNTN6	rs41293401	GG
UEVLD	rs61752314	TT
ATRN	rs118065662	AA

GENE	SNP	GENOTYPE
KIAA1755	rs41282820	GG
RRS1	rs34077648	GG
TBX15	rs61730011	AA
SDCBP2	rs35367003	CC
RDH11	rs80140987	CC
ENTPD2	rs34618694	GG
FGD5	rs144177006	CC
ENDOG	rs200885264	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
1	Low-Fat Diet	
2	Aerobic Exercise (Cardio)	1 hour
3	Paced Breathing	5 minutes
4	Breathing Techniques	10 minutes
5	HRV Biofeedback	10 minutes
6	Limit Salt Intake	
7	Avoid Cold Exposure	
8	Biofeedback	
9	Oat Bran	
10	Walking	30 minutes
11	Avoid Rapid Weight Changes	
12	Exercise At Least One Hour a Day	1 hour
13	Hawthorn Extract	
14	Stress Management Therapy	1 hour
15	Avoid Strenuous Activity	

1

Low-Fat Diet

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Adopt a diet where less than 30% of your daily calories come from fat. Incorporate plenty of fruits, vegetables, whole grains, and lean proteins. Avoid or significantly limit high-fat foods like fried foods, processed snacks, and fatty meats. Aim for this dietary pattern consistently each day.

Description

Low-fat diets are often recommended for heart health and weight management. They can help reduce the intake of saturated and trans fats, lowering the risk of cardiovascular disease.

A low-fat diet is a diet that provides **30% or less** of the daily energy requirement from fat [R].

This type of diet may be useful for **losing weight, reducing cholesterol levels, and lowering the risk of certain health conditions**, such as [R, R, R, R]:

- Heart disease
- Diabetes
- Certain types of cancer

Low-fat diets prioritize the following foods [R, R]:

- Vegetables and fruits
- Whole grains
- Legumes (e.g., beans, lentils, peas)
- Skinless poultry (e.g., chicken, duck, and turkey)
- Fish and seafood (e.g., salmon, lake trout, tuna, and herring)
- Egg whites
- Low-fat dairy products

How it helps

A low-fat diet aids in managing bradycardia by reducing saturated fat intake, which can lower cholesterol levels and potentially improve cardiovascular function. This dietary approach also supports optimal blood pressure, promoting overall heart health.

2 Aerobic Exercise (Cardio)

IMPACT 1 / 5
EVIDENCE 1 / 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

Aerobic exercise improves cardiovascular efficiency by enhancing heart function and increasing stroke volume, which can help alleviate symptoms of bradycardia such as fatigue and dizziness. Regular activity also promotes overall heart health, critical for individuals with bradycardia.

3 Paced Breathing

IMPACT 1 / 5
EVIDENCE 1 / 5

How to implement

Sit in a comfortable position or lie down. Inhale slowly through your nose for 4 seconds, hold your breath for 7 seconds, and then exhale slowly through your mouth for 8 seconds. Repeat this breathing pattern for 5-10 minutes daily, or whenever you feel stressed or anxious.

TYPICAL STARTING DOSE
5 minutes

Description

Paced breathing is a relaxation technique that involves controlling the rhythm and depth of breaths. It can help reduce stress, anxiety, and lower blood pressure, promoting relaxation and mental well-being.

How it helps

Paced breathing can enhance autonomic regulation by activating the parasympathetic nervous system, which may alleviate stress and anxiety. This can help stabilize heart rate and improve overall cardiovascular function in individuals with bradycardia.

4

Breathing Techniques

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice deep breathing exercises for 10 minutes daily, preferably in a quiet space where you won't be disturbed. Sit or lie down in a comfortable position, slowly inhale through your nose, allowing your chest and lower belly to rise, hold the breath for a moment, and then exhale slowly through your mouth or nose. This can be done at any time of day to reduce stress and improve focus.

TYPICAL STARTING DOSE

10 minutes

Description

Breath awareness and specific breathing techniques, such as deep breathing or mindfulness-based practices, can help reduce stress, improve focus, and enhance overall mental well-being. These techniques are valuable tools for managing anxiety and promoting relaxation.

Most breathing techniques involve taking slow and even breaths. Their main goal is to prevent rapid breathing (**hyperventilation**) [R].

Breathing techniques tend to help with [R, R, R]:

- Stress
- Anxiety
- Sleep problems
- Asthma

One example is the **Buteyko breathing technique**. It's often used by people with asthma or other conditions that affect the lungs [R].

Another example is **yogic breathing**. **Yoga** is a practice that combines breathing techniques with exercise and meditation [R, R].

How it helps

Breathing techniques can enhance parasympathetic nervous system activity, which may help stabilize heart rate and reduce anxiety in individuals with bradycardia. This relaxation response can alleviate symptoms associated with the condition and improve overall cardiovascular health.

5

HRV Biofeedback

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice HRV biofeedback sessions for 10-20 minutes daily, ideally with the guidance of a trained professional or using a reliable app that measures your heart rate variability. Focus on controlled breathing techniques during these sessions to improve your HRV over time.

TYPICAL STARTING DOSE

10 minutes

Description

Heart rate variability (HRV) biofeedback is a technique that helps individuals manage stress and improve their overall well-being by training them to regulate their heart rate variability. It can enhance emotional resilience and reduce the impact of stress on the body.

How it helps

HRV biofeedback can improve regulatory mechanisms of the autonomic nervous system in individuals with bradycardia, promoting heart rate normalization and enhancing stress resilience. This technique fosters better emotional regulation, which can further mitigate bradycardia symptoms.

6

Limit Salt Intake

IMPACT 1 / 5

EVIDENCE 1 / 5

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

By limiting salt intake, individuals with bradycardia can prevent excessive sodium retention, which may contribute to elevated blood pressure. This is crucial for promoting optimal cardiovascular function and reducing complications associated with lower heart rates.

7

Avoid Cold Exposure

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Minimize your time outdoors during cold weather. When you must go out, wear appropriate clothing such as insulated jackets, hats, gloves, and waterproof boots to protect against the cold. It's especially important to keep your extremities covered to prevent frostbite. Aim to limit outdoor exposure on very cold days and try to stay indoors, where it's warm, as much as possible.

Description

Avoiding prolonged exposure to extreme cold temperatures is essential for preventing cold-related health issues like fatigue, hypothermia, and slower body functions. Cold exposure may be risky for people with respiratory conditions like asthma and those with blood vessel problems.

Cold exposure occurs when the body is exposed to lower-than-normal temperatures for a prolonged period of time. It can happen when someone is immersed in cold water or outdoors without proper clothing or shelter [R].

Cold exposure may cause the body's core temperature to drop, which results in shivering and muscle stiffness. Prolonged or extreme cold exposure may lead to [R, R]:

- Slower body functions
- Fatigue
- Confusion
- Hypothermia

Cold exposure may be risky for people with respiratory conditions like asthma and those with blood vessel problems [R].

How it helps

Avoiding cold exposure helps to prevent exacerbation of bradycardia symptoms by maintaining stable heart rate and circulation, which can be compromised in low temperatures. This precaution aids in reducing fatigue and confusion associated with cold-induced physiological stress.

8 Biofeedback

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Attend biofeedback sessions once or twice a week for about 8 to 10 weeks. During these sessions, a therapist will guide you through exercises to control different body functions, such as heart rate or muscle tension, using monitors that provide feedback on your physiological state. Practice the techniques learned during sessions at home daily to improve symptoms and manage your condition.

Description

Biofeedback is a type of therapy that teaches people how to control certain body functions, such as heart rate, blood pressure, and muscle tension. It can be used to treat a variety of conditions, including stress, anxiety, and chronic pain.

Biofeedback is a kind of "**brain training**" in which sensors are attached to your body. They detect information like your heart rate, temperature, and breathing rate. By seeing this information, you may be better able to control these functions [R, R].

Biofeedback is used to help with [R, R]:

- Gut problems
- Chronic pain
- Migraines
- Insomnia
- Attention

Neurofeedback is a form of biofeedback that measures brain activity in real time [R].

How it helps

Biofeedback therapy enhances individuals' awareness and control over autonomous nervous system functions, promoting relaxation and improving heart rate variability. This modulation aids in effectively managing bradycardia symptoms by fostering a balanced heart rhythm.

9

Oat Bran

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate oat bran into your diet by adding 1-2 tablespoons to your breakfast cereal or yogurt daily. You can also use it as an ingredient in homemade bread, muffins, or pancakes. Aim to include oat bran in at least one meal per day for ongoing dietary benefits.

Description

Oat bran is the outer layer of oat grains and is rich in soluble fiber, making it a heart-healthy addition to diets. Consuming oat bran may help lower cholesterol levels and support digestive regularity.

How it helps

Oat bran aids in managing bradycardia by lowering cholesterol levels, which enhances cardiovascular health. Its soluble fiber content supports healthy blood flow, potentially improving heart rate and reducing the risks associated with heart rhythm abnormalities.

10

Walking

IMPACT 1 / 5

EVIDENCE 1 / 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 helps individuals with bradycardia by enhancing cardiovascular fitness through increased heart rate variability and improved blood circulation, which can support overall heart health without placing excessive strain on the body.

11

Avoid Rapid Weight Changes

IMPACT 1 / 5

EVIDENCE 1 / 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

Avoiding rapid weight changes helps maintain stable cardiovascular function, reducing stress on the heart and minimizing potential exacerbation of bradycardia. This stability supports overall heart health and mitigates risks associated with nutritional deficiencies.

12

Exercise At Least One Hour a Day

IMPACT 1 / 5

EVIDENCE 1 / 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

Regular exercise helps improve heart rate variability and enhances the efficiency of cardiac output in individuals with bradycardia, which can alleviate symptoms and promote overall cardiovascular health.

13 Hawthorn Extract

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 300mg to 600mg of hawthorn extract divided into two or three doses throughout the day. It's recommended to continue this regimen daily for at least 3 to 6 months to observe potential benefits.

Description

Hawthorn extract is used in herbal medicine for its potential to support cardiovascular health, including regulating blood pressure and improving circulation. It contains compounds that may help strengthen the heart and promote overall cardiovascular well-being.

Hawthorns (*Crataegus spp.*) are thorny trees or bushes with white flowers and red berries. Hawthorns are native to Europe, North America, and Asia. They belong to the same family as roses and edible fruits such as apples and pears [R, R].

Hawthorn is one of the oldest known medicinal plants in Europe. In European and American folk medicine, it is traditionally used for [R, R, R]:

- Heart disease
- Digestive issues
- Anxiety and insomnia
- Diabetes
- Asthma

How it helps

Hawthorn Extract has been found in several studies to potentially benefit heart health by improving cardiovascular function. It appears to enhance blood flow, improve cardiac muscle contraction, and might regulate heart rhythms. These properties could be helpful in managing conditions like bradycardia by supporting a stronger and more efficient heart function.

14

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

Managing stress helps regulate the autonomic nervous system, which controls heart rate. Lowering stress can reduce episodes of dangerous bradycardia.

15

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 exacerbate bradycardia symptoms by putting excessive stress on the heart. Keeping activities moderate helps manage the condition without overburdening the cardiovascular system.

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 mcIU/mL	0.4 1.5 2.5 4.5	9 Nov 2025
Magnesium	2.17 mg/dL	1.2 1.5 2 2.6 4.9	9 Nov 2025
Potassium, Serum	5.2 mmol/L	2.5 3.5 4 4.75 5.3 5.5	9 Nov 2025