SelfDecode™

CLOCK (Sleep & Weight)

Gene Report

REPORT CATEGORIES

SLEEP

WEIGHT & BODY FAT

Sample Client

Report date: 15 January 2026

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Personal information

NAME

Sample Client

SEX AT BIRTH

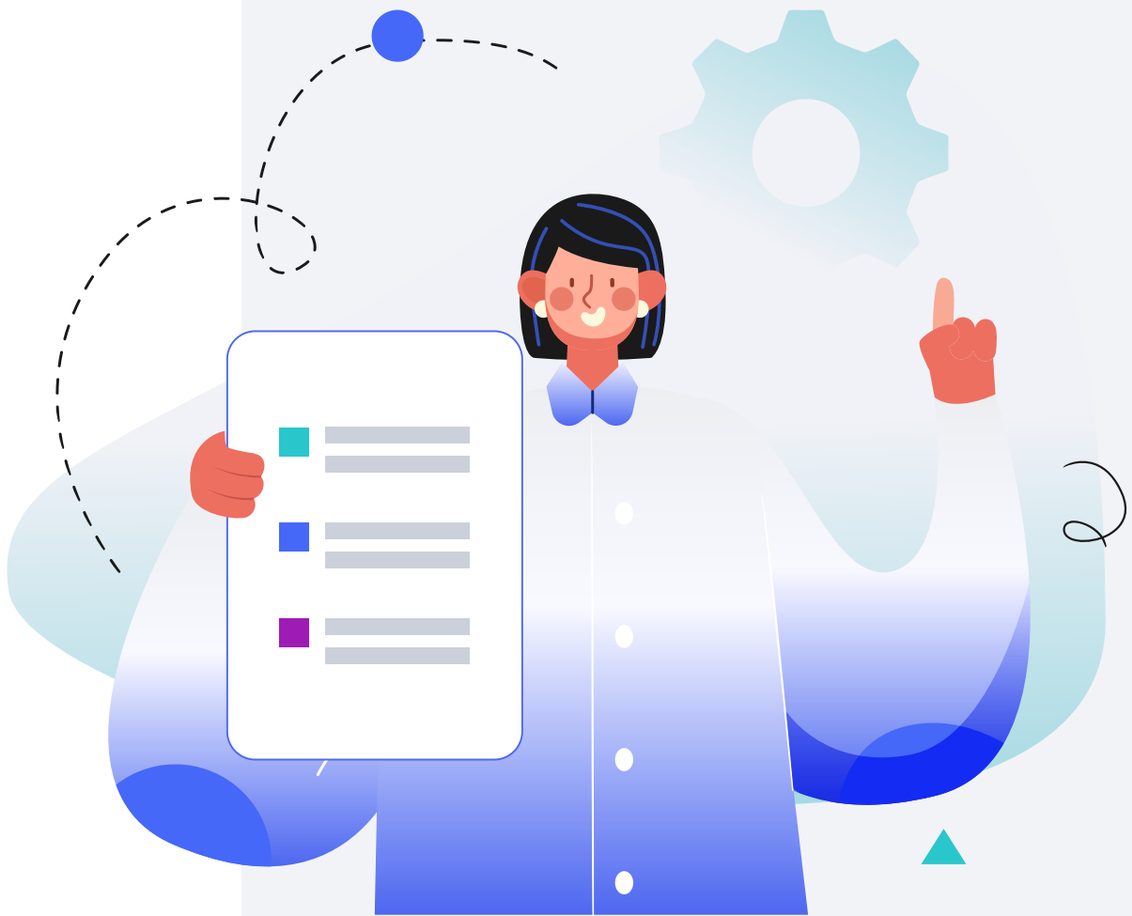
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

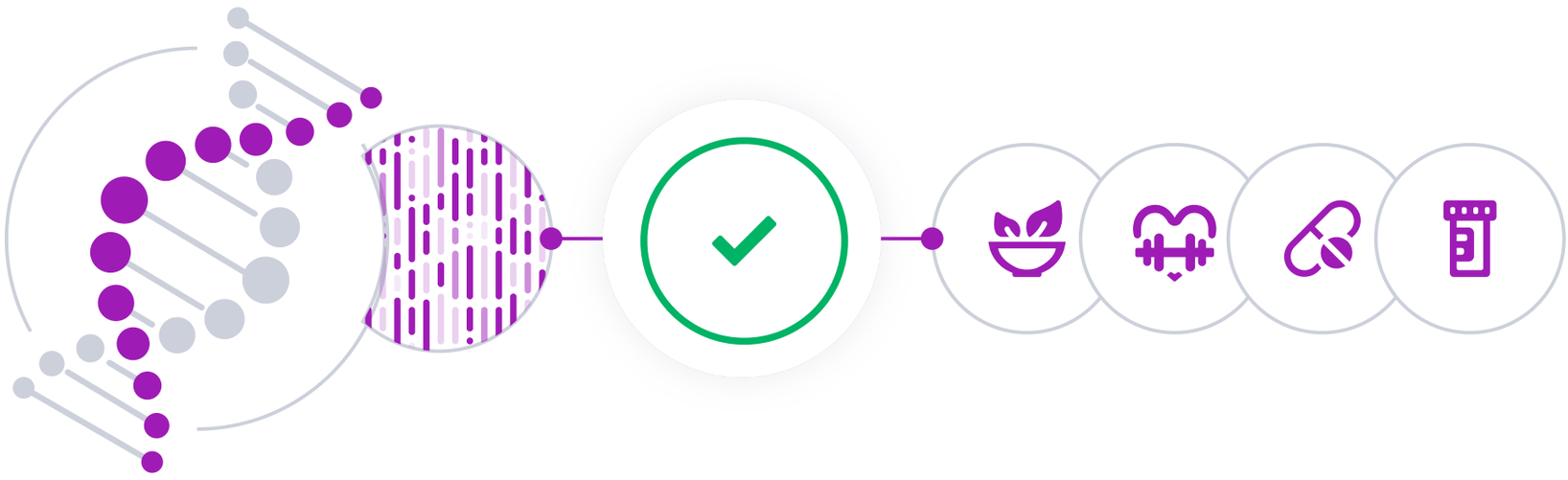


DISCLAIMER

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

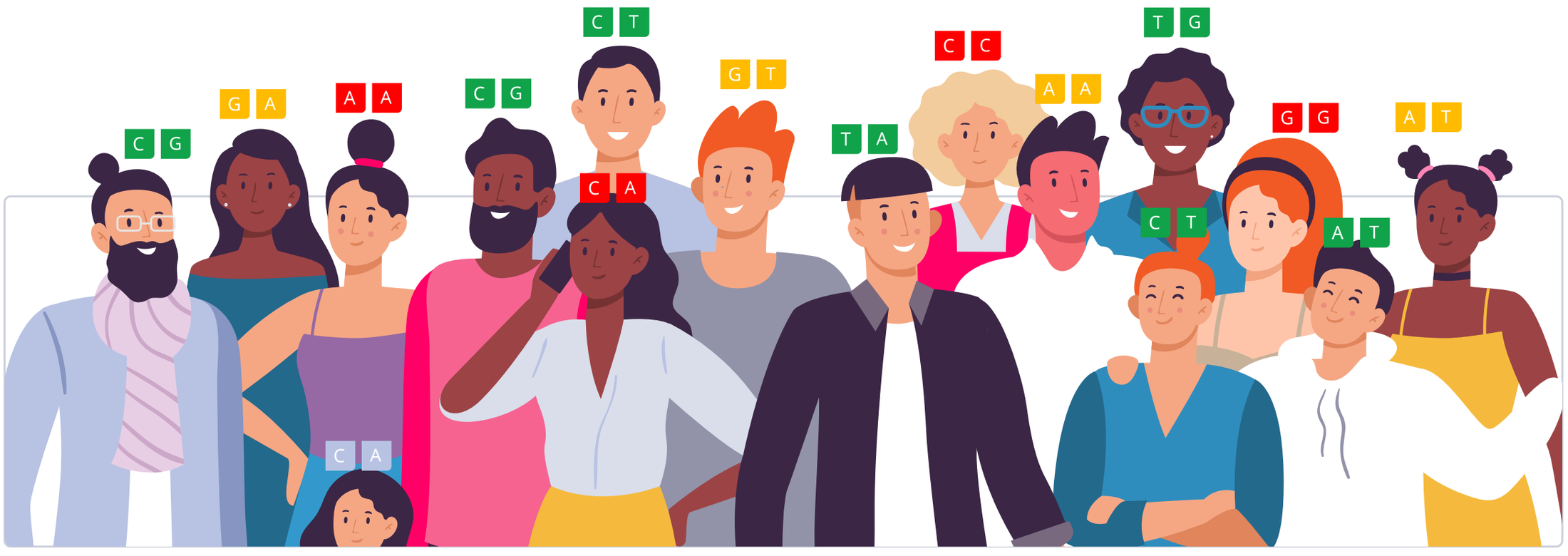
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

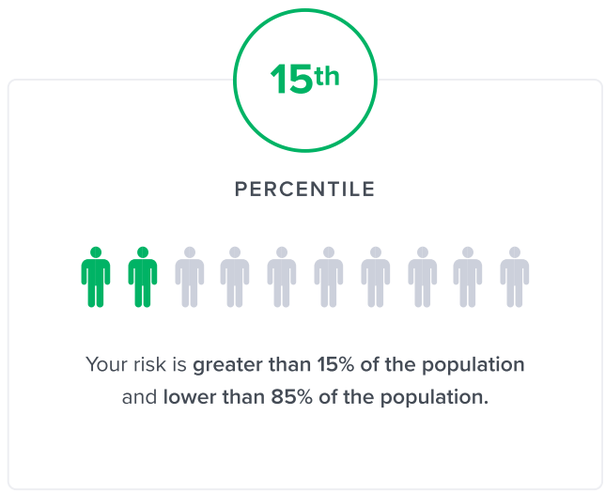
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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.

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

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



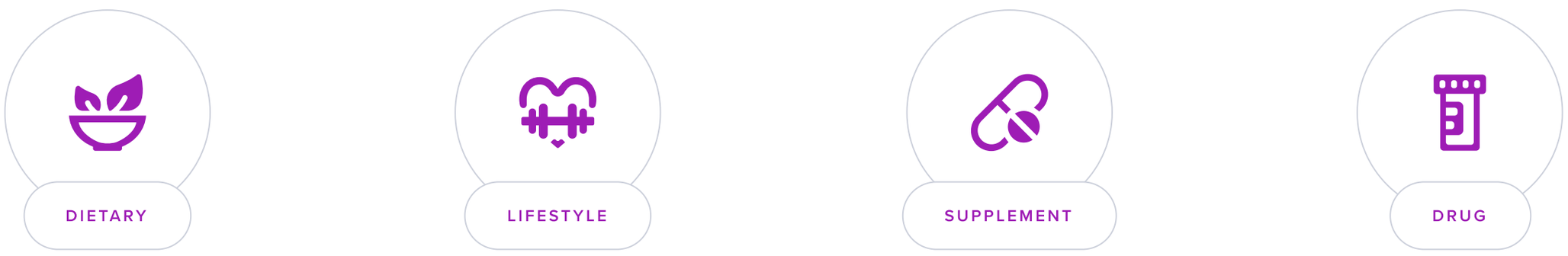
Genotype color info: AA You don't have any risk alleles | AA You have 1 risk allele | AA You have 2 risk alleles

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, 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

The *CLOCK* ('Circadian Locomotor Output Cycles Kaput') gene is a core component of the biological clock. It is one of the main genes responsible for human daily rhythms, also known as circadian rhythms [R].

Many processes in the body follow a daily rhythm, which is why *CLOCK* has many and varied effects. To name a few, mutations in this gene have been linked to:

- Being an evening person [R, R, R]
- Sleep patterns and insomnia [R, R]
- Obesity and weight loss [R, R, R, R]
- ADHD [R, R]
- Schizophrenia [R]
- Insulin levels, metabolic syndrome, and diabetes [R, R, R]
- Alzheimer's [R]

CLOCK Genetics, Sleep, and Weight

The **rs1801260** polymorphism is the most studied SNP in the *CLOCK* gene. Its minor 'G' allele increases CLOCK activity and has been associated with many sleep-related traits, such as [R]:

- Abnormal and less stable circadian rhythms [R, R]
- Shorter sleep duration (≤6 h per day) [R, R, R]
- Being an evening person [R, R, R]
- Less activity overall, being active later in the day, and being sleepier during the morning [R, R]

This variant has also been linked to:

- Higher prevalence of obesity (mixed findings) [R, R]
- Higher ghrelin (hunger hormone) levels and lower satiety [R, R]
- Higher insulin and insulin resistance [R]
- Low compliance with dietary programs, such as the Mediterranean diet [R]
- More difficulty losing weight from diets or bariatric surgery [R, R, R]

There is a link between how the *CLOCK* gene affects circadian rhythms and sleep on one hand, and metabolic balance and eating behavior on the other [R, R].

Studies have found that sleep deprivation disrupts metabolism by increasing the levels of the stress hormone cortisol and decreasing insulin sensitivity. Furthermore, a lack of sleep increases the levels of the hunger hormone ghrelin, which increases hunger and appetite -- thereby increasing the risk of obesity [R, R, R, R, R, R].

TYPICAL ACTIVITY

Likely typical CLOCK activity based on the genetic variants we looked at

48%

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as **48% of our users.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CLOCK	rs1801260	AG

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	Sleep for 7+ Hours	
2	Circadian Rhythm Alignment	
3	Limit Saturated Fat	
4	Good Eating Habits	
5	Bacognize (Bacopa monnieri)	300 mg

1

Sleep for 7+ Hours

IMPACT 4 / 5

EVIDENCE 4 / 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

If you carry the rs1801260 'G' variant, one important thing you can do is to make sure you are getting enough sleep. Be deliberate about it.

The rs1801260 'G' variant has been linked to abnormal circadian rhythms and shorter sleep duration (<6h) [R, R, R, R, R].

A meta-analysis of 30 studies and over 630,000 people found a link between short sleep duration and 55% higher incidence of obesity in adults and 89% in children [R, R, R].

Poor sleep can increase hunger and cravings and disrupt hunger hormones like ghrelin and leptin [R, R]. Plus, increased ghrelin levels have already been associated with the rs1801260 'G' variant [R, R].

One study found that women who carry the rs1801260 'G' variant were more likely to experience disruptions in sleep after a stressful life event [R].

So if you're stressed, getting enough sleep is something you need to pay more attention to.

2

Circadian Rhythm Alignment

IMPACT 3 / 5

EVIDENCE 3 / 5

Description

Circadian rhythm alignment is the process of adjusting your sleep-wake cycle to match the natural 24-hour cycle of the Earth's rotation. Circadian rhythm alignment has been linked to a number of health benefits, including improved sleep quality, better mood, and reduced risk of obesity, heart disease, and diabetes.

How it helps

Research over the past few decades has recognized the importance of circadian biology in obesity. It turns out that circadian biology may have a massive influence on energy balance and metabolism [R].
Both shift work and being exposed to bright light at night have been linked to an increased risk of obesity [R, R].
Studies suggest that eating earlier may help lose weight.
Getting more calories in the morning has been linked to lower odds of being overweight or obese. On the other hand, eating more during nighttime increased those odds. Plus, eating later in the day was associated with losing less weight when dieting [R, R, R].
In animal studies, mice who ate at the wrong time gained more weight, despite having the same calorie intake and activity over the course of the experiment [R].
Getting more light in the morning is also good for losing weight. A study in 54 people found that getting exposed to lots of light earlier in the day was associated with a lower BMI [R, R].
There are several ways to improve and shift your circadian rhythms, including:

- eating earlier in the morning and restricting food at night
- getting outside in the morning [R]
- getting more sunlight during the day [R, R, R, R]
- avoiding bright light at night and wearing blue blocking glasses at night [R, R, R]
- going to bed and waking up at the same time [R]

3

Limit Saturated Fat

IMPACT 3 / 5

EVIDENCE 1 / 5

How to implement

Reduce your intake of saturated fats by choosing lean cuts of meat, opting for low-fat or fat-free dairy products, and using cooking oils high in unsaturated fats (like olive or canola oil) instead of butter or lard. Aim to keep saturated fat to less than 10% of your total daily calories. For someone consuming 2000 calories a day, this means 20 grams or less of saturated fat per day.

Description

Limiting saturated fat intake is crucial for managing cholesterol levels and reducing the risk of heart disease. Choosing lean protein sources and incorporating unsaturated fats into the diet supports cardiovascular health and overall well-being.

How it helps

In a study with 1.1k people, those with the rs1801260 'G' variant had greater waist circumference only when they consumed lots of saturated fat (>11.8% of total energy) [R].

4

Good Eating Habits

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Incorporate a variety of fruits, vegetables, whole grains, lean proteins, and healthy fats into your meals daily. Aim to eat at regular intervals, ideally three meals and one to two healthy snacks per day, to maintain energy levels and avoid overeating. Reduce consumption of processed foods, sugary snacks, and beverages.

Description

Practicing good eating habits, such as balanced and portion-controlled meals, can help maintain a healthy weight, support proper nutrition, and reduce the risk of chronic diseases.

Eating habits involve the how, what, when, and where of your diet. Some eating habits can be good for your health, but others... not so much.

Good eating habits include [R, R, R]:

- Planning and preparing most of your meals
- Eating mindfully and slowly
- Only eating when hungry
- Not skipping meals

Developing good eating habits takes attention, practice, and effort [R].

How it helps

Among 1.2k obese and overweight people in a weight-loss program, those with the rs1801260 'G' who were also emotional eaters had more difficulty losing weight [R].

If you are an emotional eater, learn to control your emotions with exercise, mindful eating, and by building a positive body image. Working on emotional regulation with a qualified professional can also help [R, R, R].

5

Bacognize (Bacopa monnieri)

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take bacopa as a supplement in a dose of 300-450 mg per day, ideally with food to enhance absorption. It should be taken daily for at least 4-6 weeks to begin noticing benefits in cognitive function and stress reduction.

TYPICAL STARTING DOSE

300 mg

Description

Bacopa, also known as Brahmi, is an herb traditionally used in Ayurvedic medicine to support cognitive function and memory. It is believed to have neuroprotective properties and is used in herbal supplements for mental well-being.

Bacopa (*Bacopa monnieri*) grows as a weed in the rice fields of East Asia and the US [R].

Bacopa is used in Ayurveda (Indian traditional medicine) to support cognition [R].

Note that bacopa is fat-soluble. This means that **taking it with a fatty meal should help you absorb it better** [R].

How it helps

Supplementation with *Bacopa monnieri* for 12 weeks reduced anxiety in a preliminary human study [R].

Bacopa monnieri supplementation also reduced cortisol levels and overall stress in another study [R].

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
Insulin, Fasting	9.08 uU/mL	1 – 6 – 19.6 – 25	9 Nov 2025