SelfDecode™

5-HTTLPR (Serotonin) Gene Report

REPORT CATEGORY

MENTAL HEALTH

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

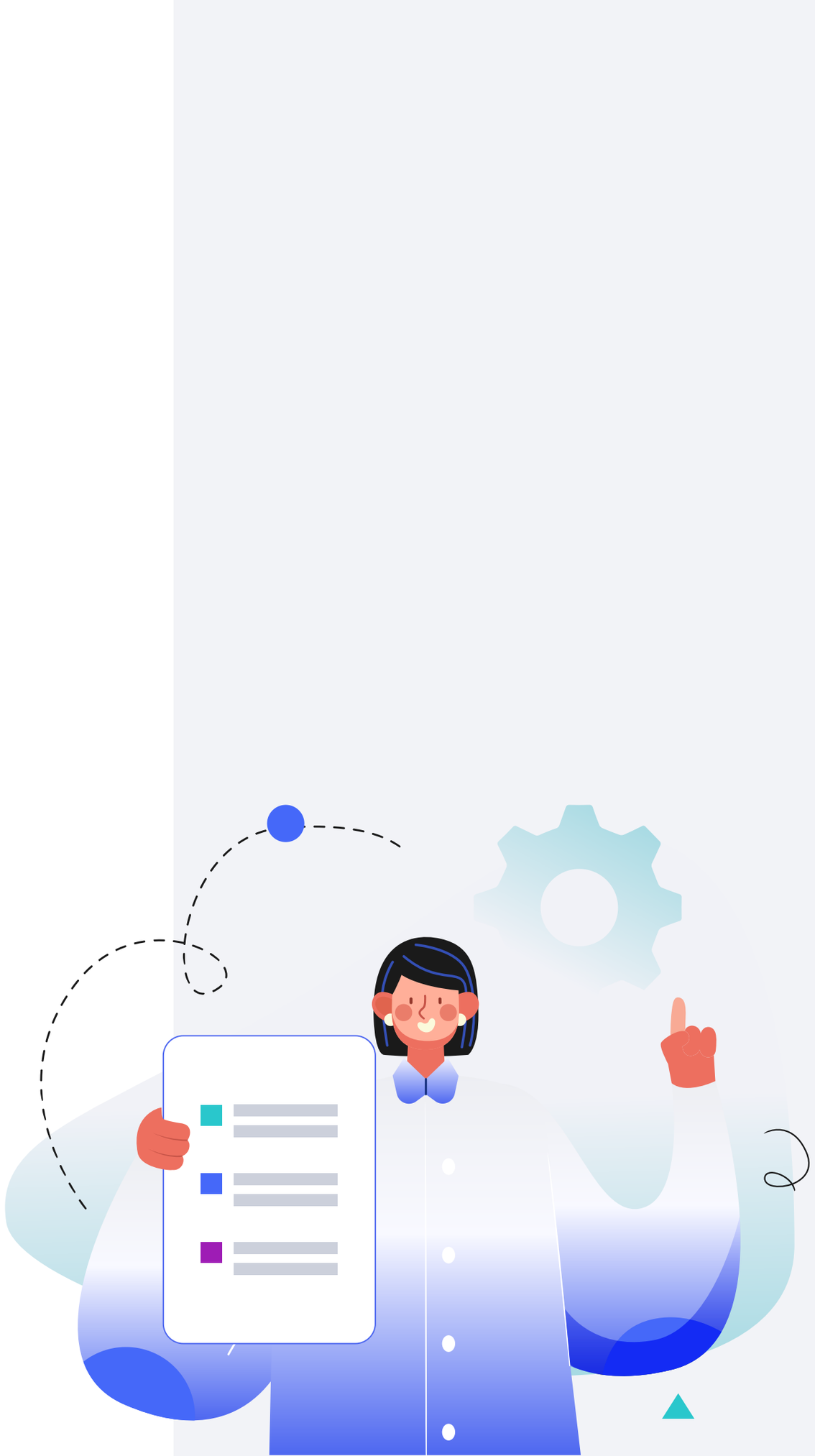
Male

HEIGHT

5ft 5" 165cm

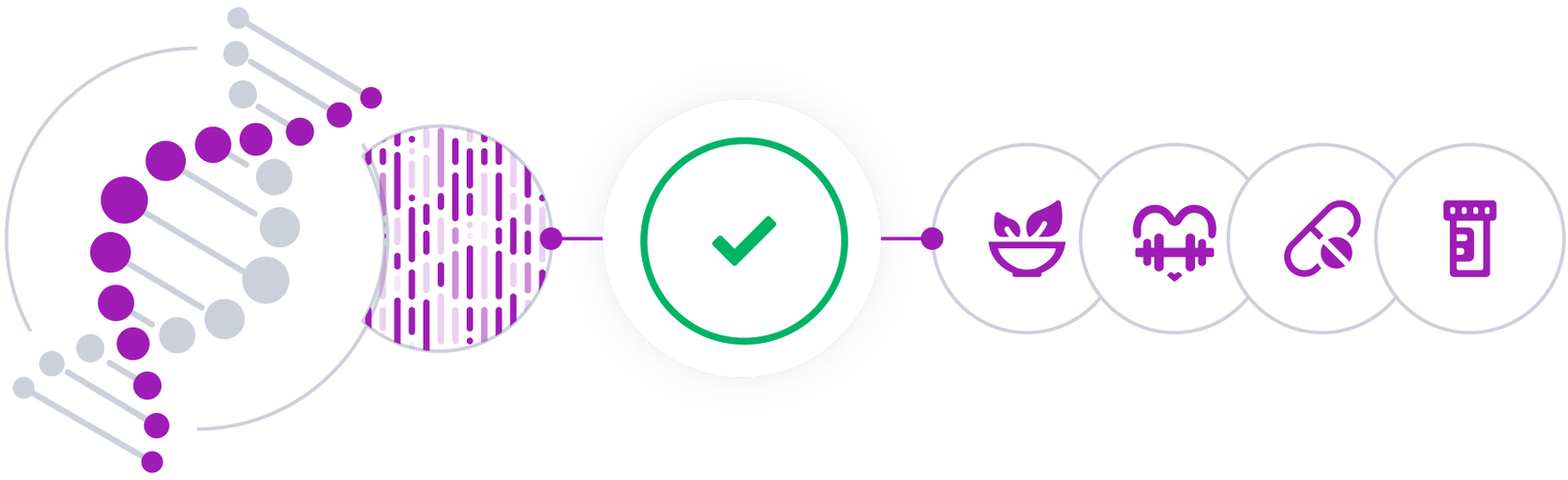
WEIGHT

137lb 62kg



How this works

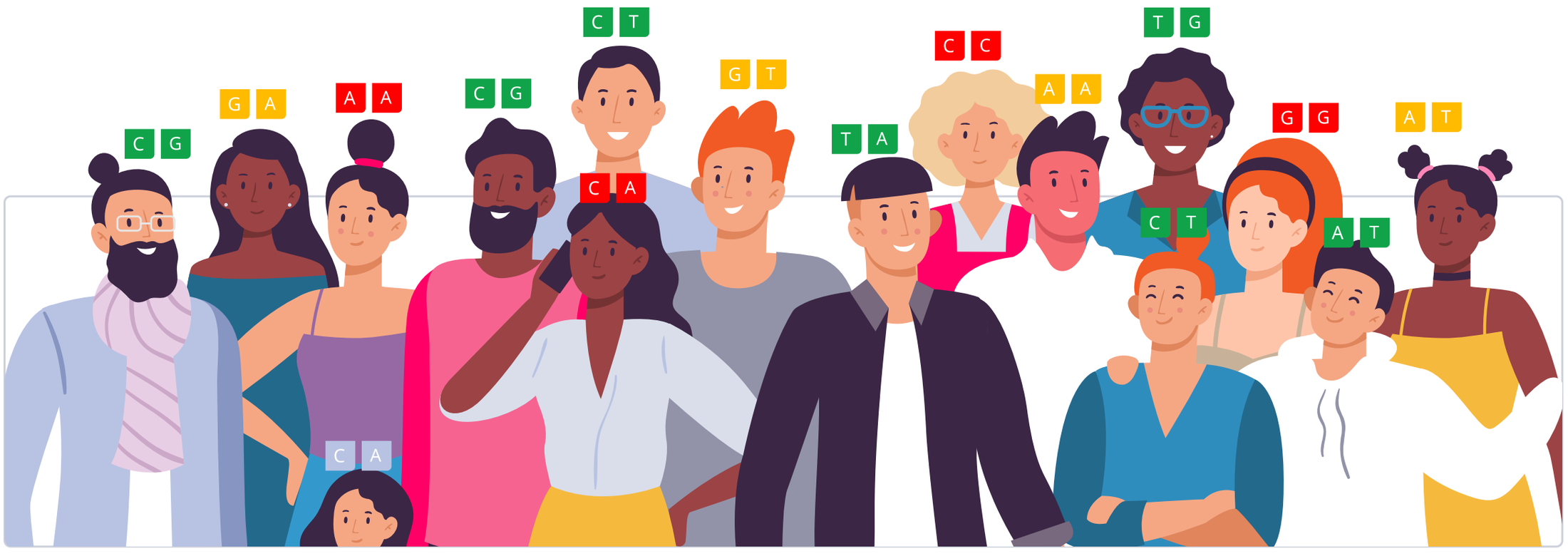
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

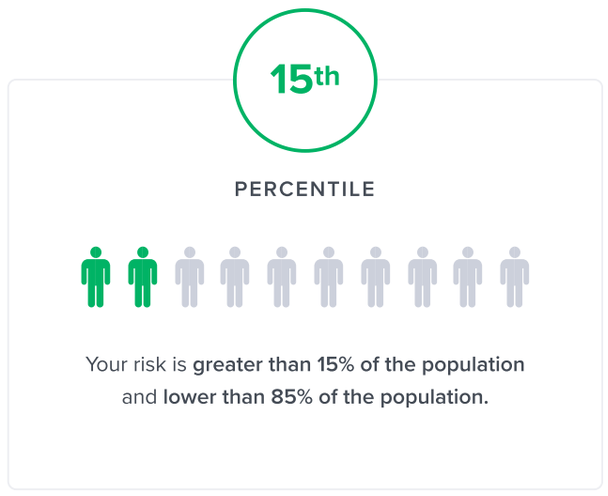
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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.

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

5HTTLPR is the most well-researched polymorphism of the *SLC6A4* gene, which encodes a serotonin transporter protein. Once serotonin has been released by brain cells, SLC6A4 becomes active and moves the serotonin back into those cells to reduce the length of serotonin signals. This gene has mainly been associated with psychiatric conditions and how a person responds to selective serotonin reuptake inhibitor (SSRI) antidepressants like citalopram [R, R, R, R].

Serotonin is a crucial chemical messenger throughout the brain and body. It's sometimes called the "happiness hormone" due to its prominent role in mood and mental health. It helps control [R, R, R, R, R, R, R]:

- Mood and emotions
- Movement
- Sleep
- Appetite
- Digestion
- Blood vessel function
- Immunity
- Reproductive health

However, more serotonin is not necessarily better. Excessive levels can cause serotonin syndrome, a serious medical condition, and worsen some mental health problems [R, R].

The 5HTTLPR Variant

PERSONALIZED TO GENES

Based on the genetic variants we looked at, you may have the S/S genotype. This means you may have lower serotonin levels. However, keep in mind that other factors can also influence your 5-HTTLPR (SLC6A4) activity.

PLEASE NOTE: This report doesn't directly look into the long and short 5-HTTLPR alleles, but estimates your genotype based on two polymorphisms that are usually inherited together with these variants. Hence, your predicted genotype may be inaccurate.

Another genetic variant, **rs25531-C**, reduces serotonin transporter activity, making it equivalent to the **short 5-HTTLPR allele**. Please see the genotype for that variant and consider it **in addition to the results of this report** for a more accurate estimate. For example, rs25531-CT indicates at least one short allele, even if your result says "L/L". Likewise, rs25531-CC indicates two short alleles, even if your result says "L/L" or "L/S".

Depending on the presence or absence of a specific sequence, the 5HTTLPR variant can originate two different alleles [R]:

- Short (S): lower activity of the gene
- Long (L) allele: 3-fold higher activity of the gene compared to the S allele

The S allele reduces the rate at which serotonin is recycled after a signal, ultimately lowering the circulating levels of this chemical [R].

This polymorphism has been widely investigated in psychiatry. Although the evidence is mixed in some cases, the S allele has been associated with an increased risk of:

- Major depressive disorder [R, R]
- Postpartum depression [R]
- Depression in Parkinson's disease [R]
- Depression in coronary heart disease [R]

LIKELY S/S

Likely S/S genotype at 5HTTLPR based on the genetic variants we looked at

26%

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as **26% of our users.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
BLMH	rs2129785	TT
BLMH	rs11867581	AA

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

- Post-stroke depression [R, R]
- Geriatric depression [R]
- Illness anxiety (hypochondria) [R]
- PTSD [R]
- Bipolar disorder [R, R]
- Alcohol abuse and dependence [R, R]
- Anorexia nervosa [R]
- Suicide attempts [R, R, R]
- Premature ejaculation [R, R]
- Migraines [R]
- Canker sores [R]
- Antidepressant-induced mania [R]
- Failure of SSRI treatment [R]

In turn, the L allele has been linked to:

- IBS, especially IBS-C [R, R]
- Obstructive sleep apnea [R]

Different combinations of the rs2129785 and rs11867581 polymorphisms of this gene are usually inherited together with the S and L alleles and can be used to predict the genotype of this variant. While carrying the ‘T’ variant at rs2129785 and ‘A’ at rs11867581 predicts the S allele in 91% of cases, 96% of people carrying ‘T’ at rs2129785 and ‘G’ at rs11867581 and 100% of those with ‘C’ at rs2129785 and ‘A’ at rs11867581 have the L allele [R].

Other variants of this gene have been associated with chronic fatigue syndrome [R, 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.