SelfDecode™

GABA-A

Gene Report

REPORT CATEGORIES

NERVE HEALTH

MENTAL HEALTH

Sample Client

Report date: 15 January 2026

Powered by omicsedge

Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

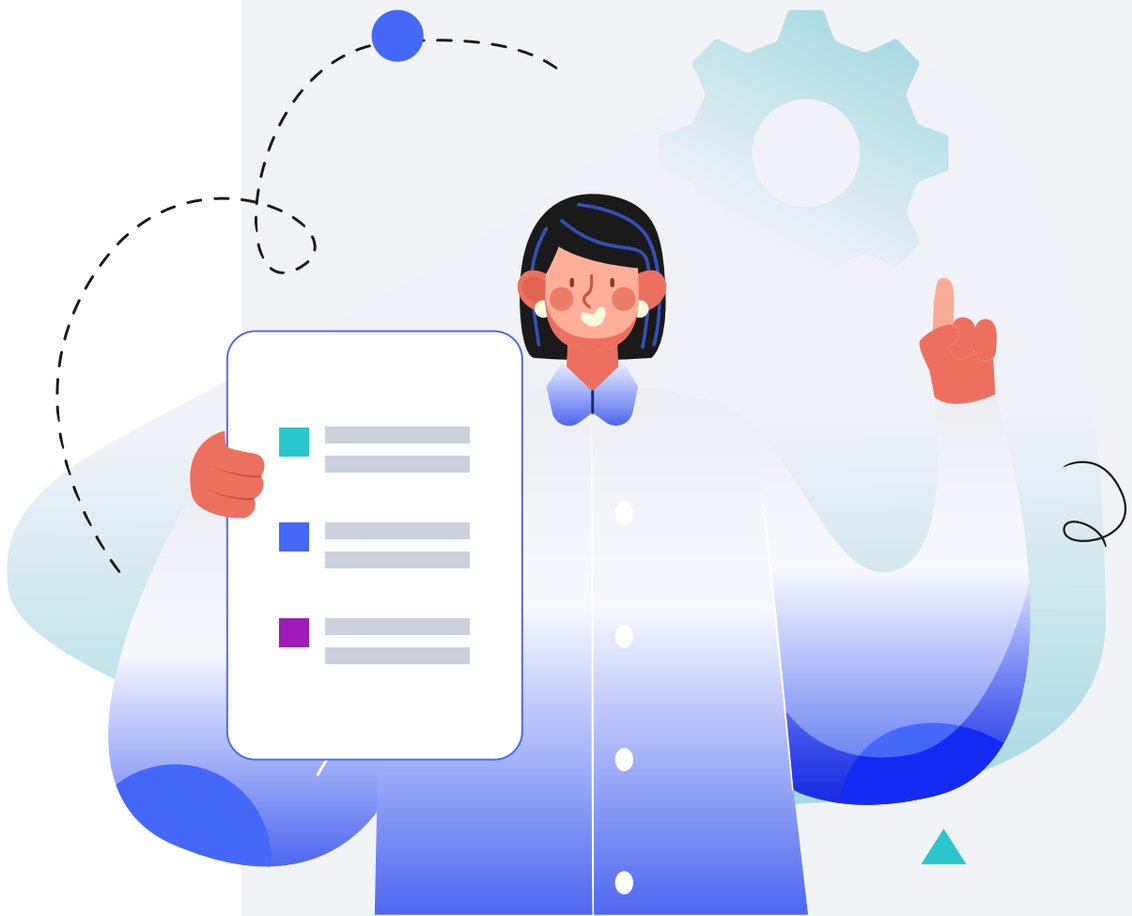
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

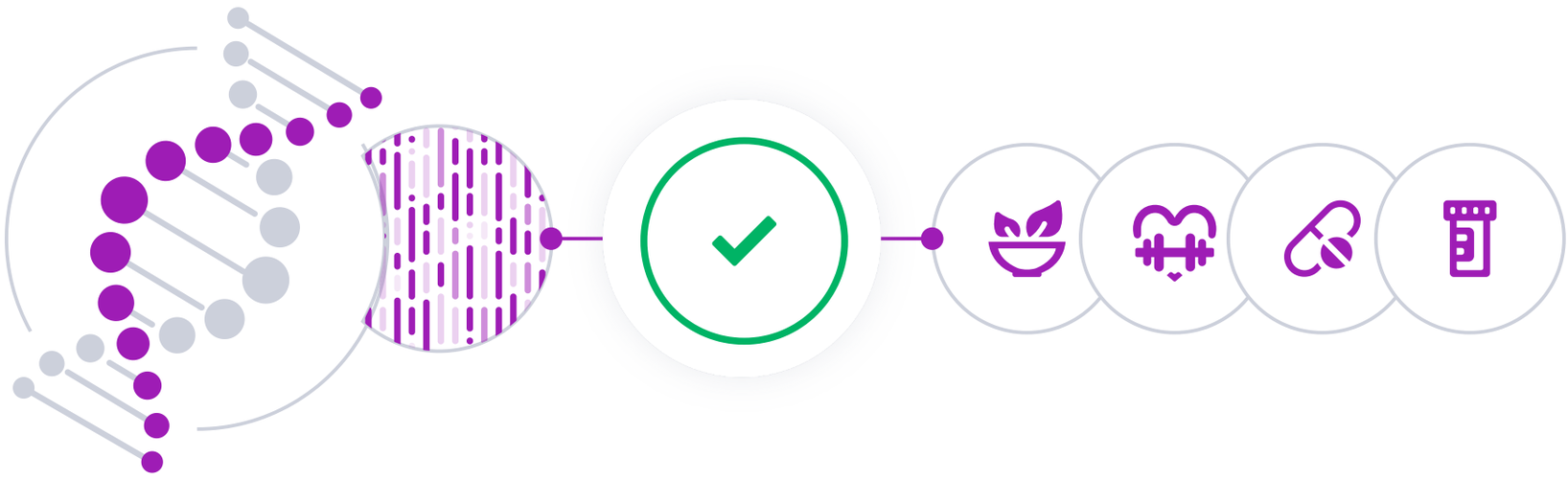


DISCLAIMER

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

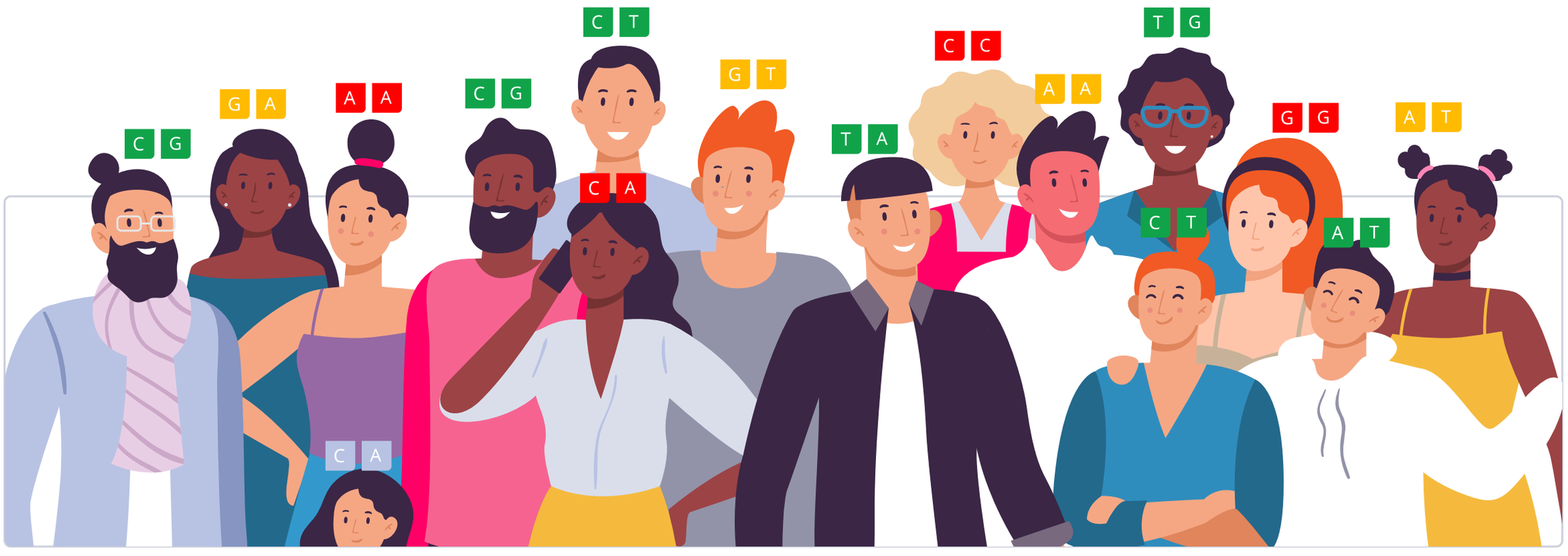
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

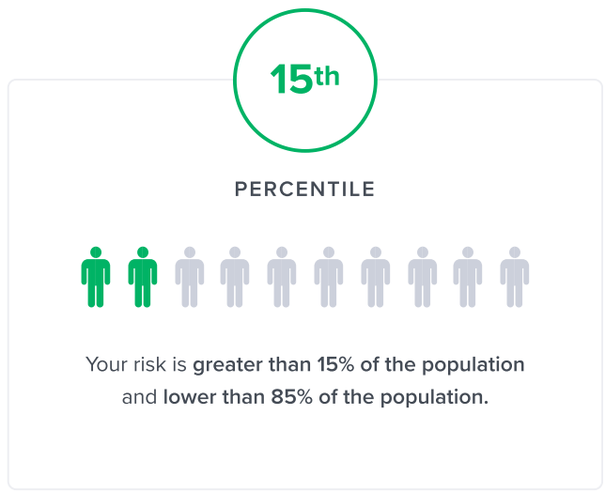
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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 GABA-A receptor is the primary target of GABA (gamma-aminobutyric acid) in the brain. Genes encoding different parts of that receptor, such as *GABRA6* and *GABRG2*, can influence its function [R].

GABA is a neurotransmitter that plays an irreplaceable role in the brain and the nervous system. Brain cells that produce GABA are called GABAergic neurons and are distributed throughout the brain [R].

GABA is the main inhibitory neurotransmitter that prevents the over-stimulation of brain cells. An abnormal GABA activity can produce mental illness and symptoms such as anxiety, depression, insomnia, convulsions, and epilepsy [R, R].

GABA-A Genetics

The *GABRG2* gene codes for the gamma-aminobutyric acid type A subunit gamma2 (GABRG2) of the GABA-A receptor. The 'T' allele of its rs211037 polymorphism likely impairs GABA-A receptor function and has been associated with an increased risk of [R]:

- Anxiety and impaired stress response [R]
- Seizures [R]
- Benzodiazepine-associated liver encephalopathy [R]

Another gene, *GABRA6*, encodes the alpha6 subunit of this receptor. The 'T' allele of its rs3219151 polymorphisms, which may also impair GABA-A activity, has been associated with an increased risk of [R]:

- Anxiety and impaired stress response [R, R, R]
- Alcohol dependence [R]
- Stress-associated suicide [R]

However, this variant has been associated with a reduced risk of schizophrenia, and the studies testing its effects on epilepsy produced mixed results [R, R, R].

LOWER ACTIVITY

Likely lower GABA-A activity based on the genetic variants we looked at

17%

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as 17% of our users.

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
GABRG2	rs211037	TT
GABRA6	rs3219151	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
1	Exercise At Least One Hour a Day	1 hour
2	Aromatherapy	30 minutes
3	Chamomile	300 mg
4	Lemon Balm	500 mg

1

Exercise At Least One Hour a Day

IMPACT 3 / 5

EVIDENCE 4 / 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

Exercise may help relieve anxiety by boosting GABA in the brain [R, R].

Health authorities emphasize the beneficial effects of exercise on anxiety [R, R, R].

People who exercise regularly are less prone to anxiety and other mood problems. Both cardio and resistance training seem to reduce anxiety [R, R, R].

You can even be physically active and practice relaxation techniques at the same time. A Chinese martial art called ***tai chi*** combines exercise and meditation. It may reduce stress and help with anxiety [R, R, R, R].

Exercise may relieve anxiety by improving [R]:

- Stress levels
- Self-esteem
- Energy and sleep quality
- Sex drive
- Weight and fitness

2

Aromatherapy

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Select essential oils like lavender, peppermint, or eucalyptus. Use a diffuser to disperse the scent into your room for 30-60 minutes at a time, up to 3 times a day. Alternatively, apply a few drops diluted in a carrier oil directly to your skin, such as on your temples or wrists, twice a day.

TYPICAL STARTING DOSE

30 minutes

Description

Aromatherapy is a holistic practice that uses the scents and aromas of essential oils to promote physical, mental, and emotional well-being. It is often used for relaxation, stress reduction, and to address various health concerns through inhalation or topical application of essential oils.

Aromatherapy uses concentrated plant extracts known as **essential oils**. They can be inhaled using a diffuser (a device that releases small amounts of oil into the air) or applied to the skin using a roller [R].

Lavender is a decorative flower and a calming herb and its essential oil is commonly used in aromatherapy. People use it to [R, R, R]:

- Reduce anxiety [R]
- Improve sleep quality [R, R]
- Relieve pain [R, R]

Essential oils can be harmful if not used properly. Tips for using them safely include [R, R]:

- Diluting them properly using a plant-based carrier oil (such as olive oil or almond oil)
- Using diffusers in a well-ventilated area for a maximum of 1 hour
- If using on the skin, testing a small area first and waiting a day before using more
- Keeping essential oils away from candles or other heat sources

How it helps

Different essential oils, especially those of lavender and sweet orange, can reduce stress by activating GABA-A receptors [R, R, R, R, R].

Lavender aromatherapy may reduce stress and anxiety. However, most studies are of low quality. You can try using it in a diffuser or applying it on the skin [R, R, R, R, R, R, R].

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Chamomile

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take chamomile supplements in the form of capsules or tablets, usually ranging from 300 to 400 mg, up to three times daily between meals. If using chamomile tea as a supplement, drink 1 to 4 cups daily.

TYPICAL STARTING DOSE

300 mg

Description

Chamomile is an herbal remedy derived from the dried flowers of the chamomile plant. It is widely used for its calming and soothing properties

Chamomile is an herb native to Africa, Asia, and Europe. It was used as a traditional herbal remedy in ancient Greece, Rome, and Egypt. Today, chamomile is used in cosmetics, aromatherapy, tea, and supplements. It may help with [R, R, R]:

- Skin problems
- Period cramps
- Gut problems
- Sleep quality
- Mood

How it helps

Chamomile owes its anti-anxiety effects to the flavonoid apigenin, which balances GABA in the brain [R, R, R, R].

Chamomile extract (up to 1.5 g/day for 8-26 weeks) may improve anxiety [R, R, R].

Note that the evidence is mixed. Chamomile did not improve anxiety in some studies. In addition, people who expect chamomile to help them are more likely to benefit from it [R, R].

Please note: *Avoid chamomile if you're allergic to ragweed, daisies, or chrysanthemums. Because it belongs to the same plant family, it may cause similar reactions. Chamomile may also interact with some medications* [R].

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Lemon Balm

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take a 500 mg lemon balm supplement daily. This dosage can be consumed at once or divided into smaller doses throughout the day, according to personal preference or the guidance of a healthcare provider.

TYPICAL STARTING DOSE

500 mg

Description

Lemon balm is an herb known for its calming and soothing properties. It is often used in herbal teas and aromatherapy to reduce stress and anxiety, promote relaxation, and improve sleep quality.

Lemon balm (*Melissa officinalis*) is an herb used in gardening and traditional medicine. **It's rich in antioxidants and relaxing components** [R, R].

People use lemon balm as a tea or supplement to [R, R, R, R]:

- Relieve anxiety
- Improve sleep quality
- Reduce stress

How it helps

Lemon balm works by preventing GABA degradation and boosting GABA-A receptor activity [R, R].

Lemon balm extract may reduce stress and anxiety. Most studies used pills with [R, R, R, R, R]:

- 600 mg of lemon balm extract
- 1,600-3,000 mg of dried herb

Please note: *If you are taking medications, consult your doctor before using lemon balm* [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.