SelfDecode™

Bioavailable Testosterone (F)

Biohacker Report

REPORT CATEGORIES —

SEX HORMONES

SEXUAL HEALTH

REPRODUCTIVE HEALTH

Sample Client

Report date: 15 January 2026

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Personal information

NAME

Sample Client

SEX AT BIRTH

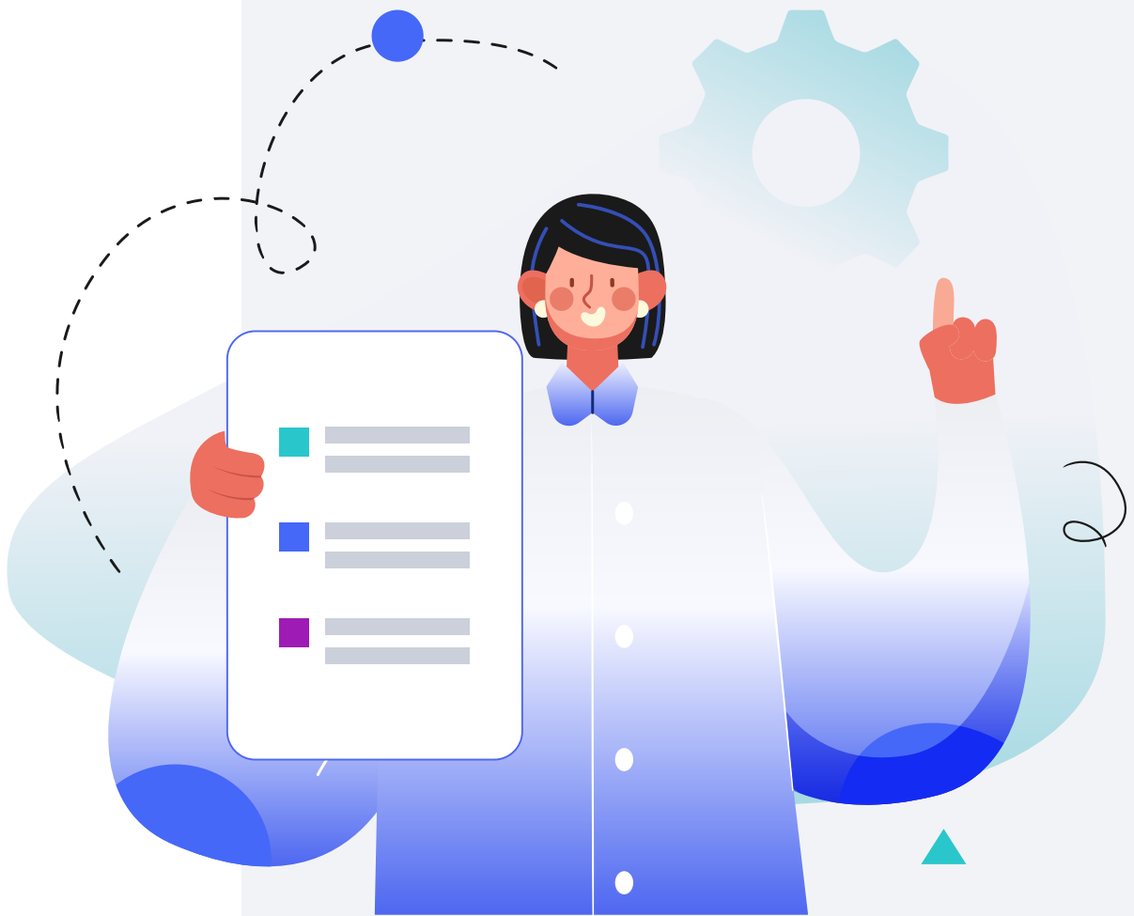
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

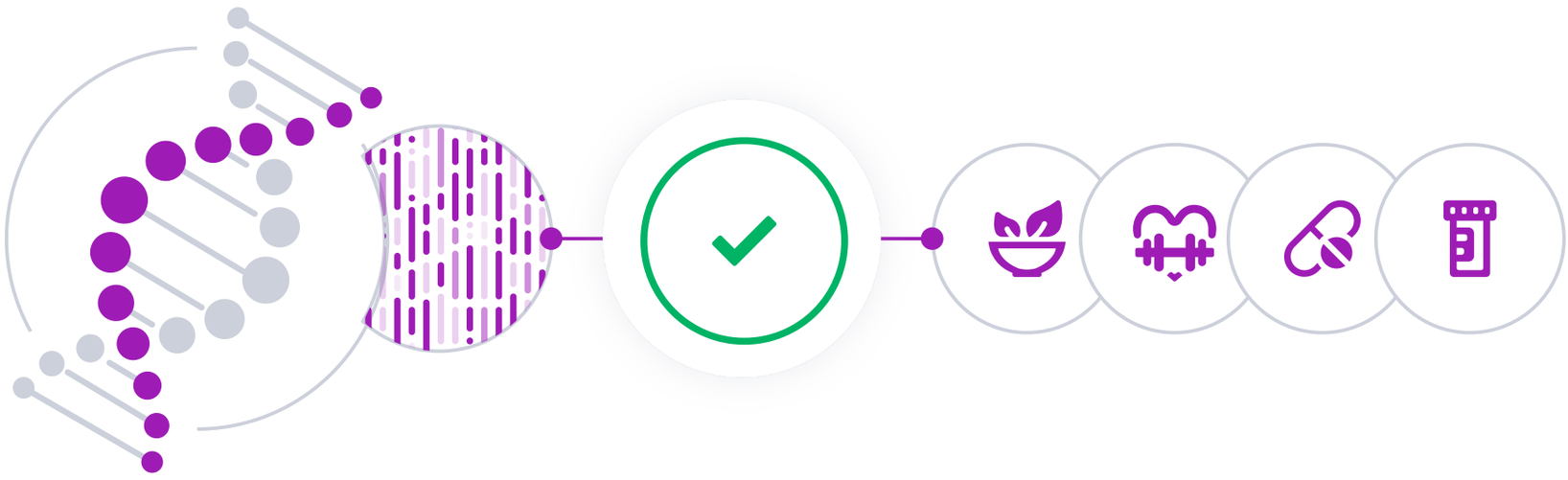


DISCLAIMER

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

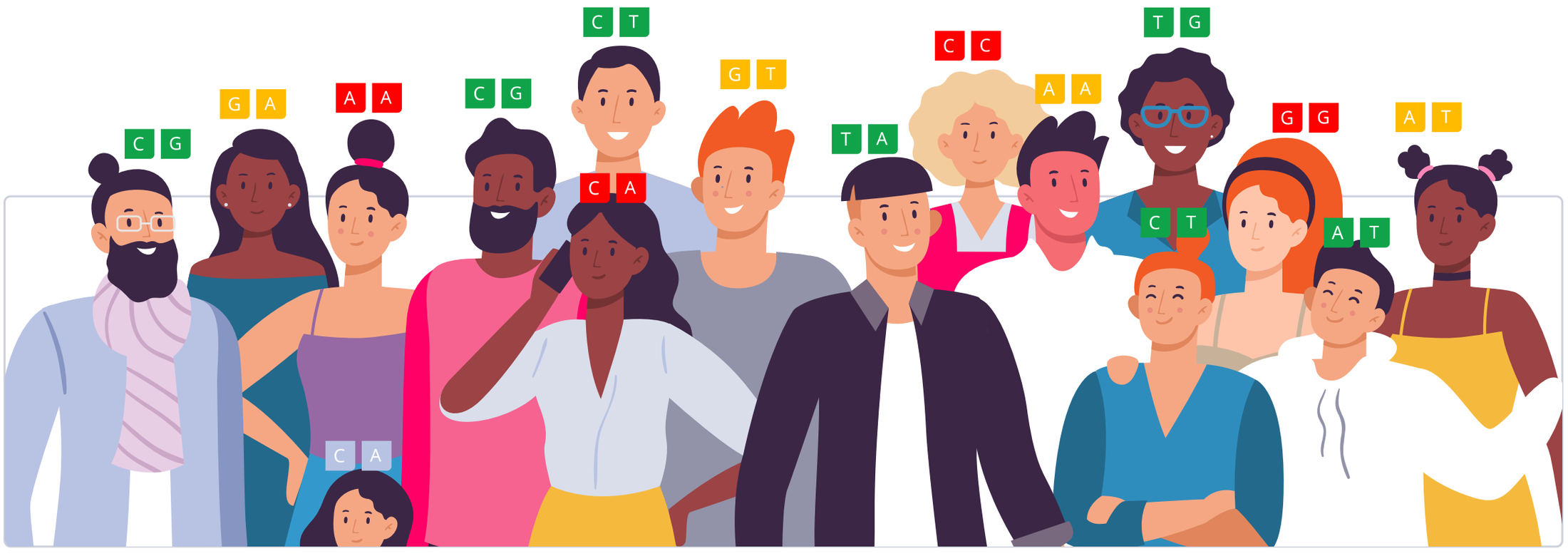
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

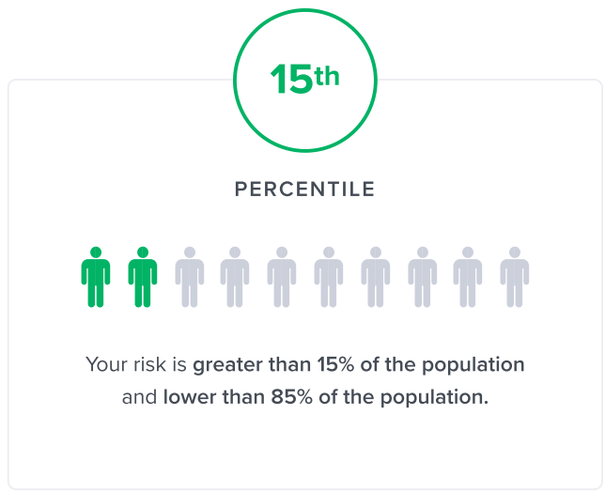
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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

Testosterone is a hormone mainly produced by the testes in men or ovaries in women. It is made from cholesterol [R].

In the blood, testosterone is present in 3 main forms [R]:

- Bound to SHBG
- Weakly bound to albumin
- Not bound to any proteins—free testosterone

Approximately **2-3%** of total testosterone is **free**. Along with a fraction weakly bound to albumin, it constitutes **bioavailable testosterone** (roughly 50% of total testosterone). “Bioavailable” means your body can use it [R].

Free testosterone is crucial because this is the active fraction that causes health effects. Testosterone bound to albumin first needs to detach and become free before acting [R].

Testosterone helps [R, R, R]:

- Improve bone health
- Build and maintain muscle mass and strength
- Increase red blood cell production
- Improve libido and sexual function
- Support mood and brain function

However, **genetically higher** testosterone levels may play a role in health issues like:

- Depression [R]
- Rheumatoid arthritis [R]
- Blood clotting issues (thromboembolism) [R]

Contributing Factors and Genetics

Free blood testosterone and the one weakly bound to albumin constitute **bioavailable testosterone**. This fraction of testosterone (roughly 50%) can enter tissues and cause health effects [R].

About **45%** of the differences in bioavailable testosterone levels may be due to **genetics** [R].

Free testosterone declines with age in both men and women after peaking in the late 20s [R, R].

A common cause of **high** testosterone in women is **polycystic ovarian syndrome (PCOS)**, which can affect fertility [R].

Bioavailable and free testosterone are less often ordered as lab markers than total testosterone because they are **more expensive and difficult to measure**. However, it may be necessary to test free testosterone levels in some cases [R].

TYPICAL LEVELS

Predisposed to typical bioavailable testosterone levels based on 20,252 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
POR	rs17853284	CC
CYP3A7	rs45446698	TT
SLC22A11	rs35008345	CC
SERPINA1	rs112635299	GG
TNFSF12	rs727428	TT
HGFAC	rs114303452	AA
CCND2	rs76895963	TT
MFSD9	rs113247979	TT
ADH1A	rs11733695	GG
GNGT2	rs11653686	CC
NR2F6	rs202200760	GG
FKBP4	rs56196860	CC
GDF6	rs113347955	GG
RPS10-NUDT3	rs199746610	CC
SERPINA1	rs17580	TT
PCCB	rs687339	TT
TYK2	rs8111359	CC
PRKCA	rs8178824	TC
SLCO1B1	rs4149056	TC
ABCA8	rs34931250	CT
CUX2	rs7314285	GT
SOX5	rs11047261	GA
AKR1C2	rs61856128	AC
BCL2L11	rs590097	GT
SHBG	rs6258	CC
CEACAM1	rs181255261	GG
URB1	rs74652944	TT
CNDP2	rs117327231	CC
ZDHHC18	rs114165349	GG
NR1H4	rs61755050	TT

GENE	SNP	GENOTYPE
BTNL2	rs28641793	CC
WDR72	rs149624078	CC
UBE2V2	rs191780890	AA
CMIP	rs58072681	TT
SLC22A24	rs113172275	TT
WNT6	rs78058190	GG
HPN	rs1688043	TT
S1PR1	rs6684361	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	Geranylgeraniol	150 mg

1

Geranylgeraniol

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Geranylgeraniol can be taken as a dietary supplement, typically in the form of capsules or softgels. The recommended dosage varies depending on individual health needs and the specific product formulation. It is generally advised to start with a lower dose and gradually increase it, under the guidance of a healthcare professional. Taking it with a meal may enhance absorption and efficacy.

TYPICAL STARTING DOSE

150 mg

Description

Geranylgeraniol is a natural compound found in various plants and herbs, known for its potential health benefits. It plays a crucial role in the body's biosynthesis of essential molecules like CoQ10 and vitamin K2. This compound is noted for its anti-inflammatory, antioxidant, and anti-cancer properties, making it a promising supplement for enhancing overall well-being.

How it helps

Geranylgeraniol (GG) supplementation (150-300 mg) may enhance testosterone levels, particularly in people with baseline levels below 700 ng/dL. It showed significant increases in total, free, and bioavailable testosterone in an 8-week study of 66 healthy men and women [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.