SelfDecode™

# LHCGR (Sex Hormones)

## Gene Report

REPORT CATEGORY —

SEX HORMONES

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**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

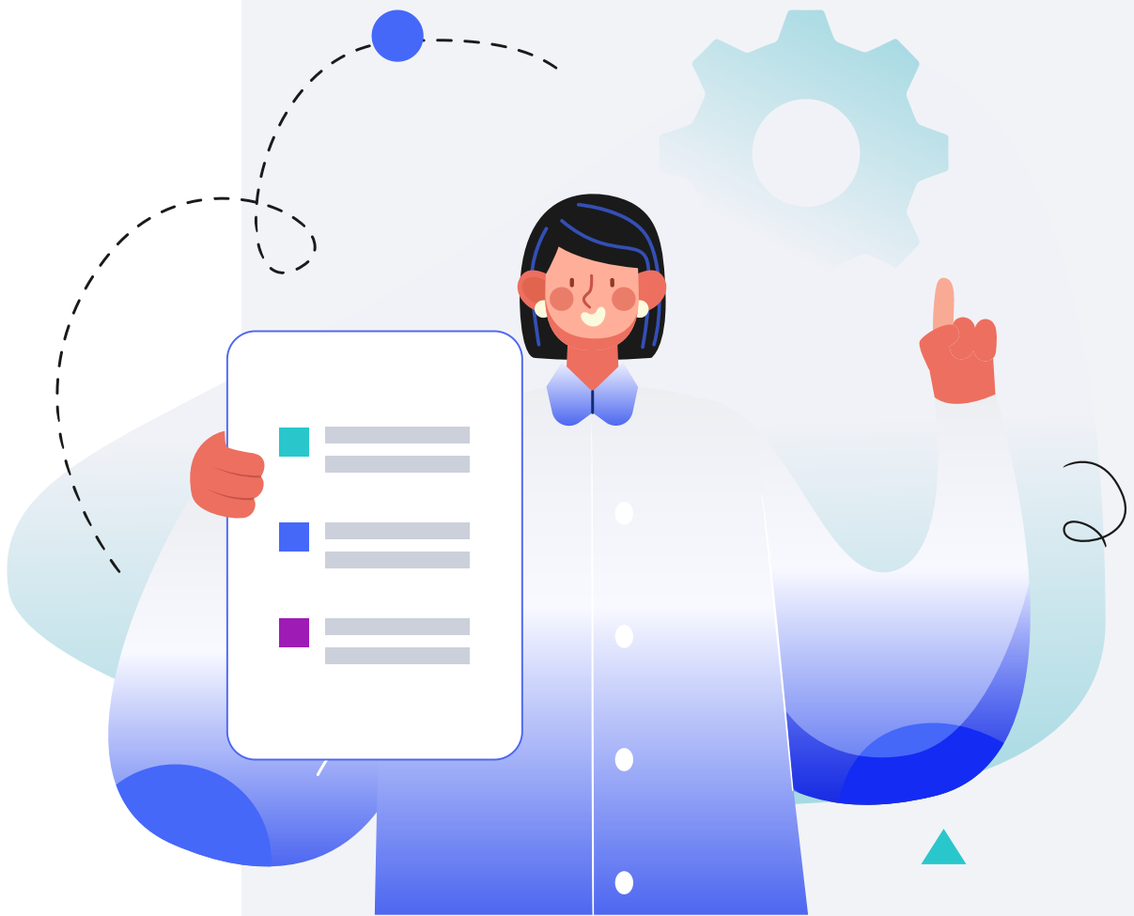
**Male**

HEIGHT

**5ft 5"** 165cm

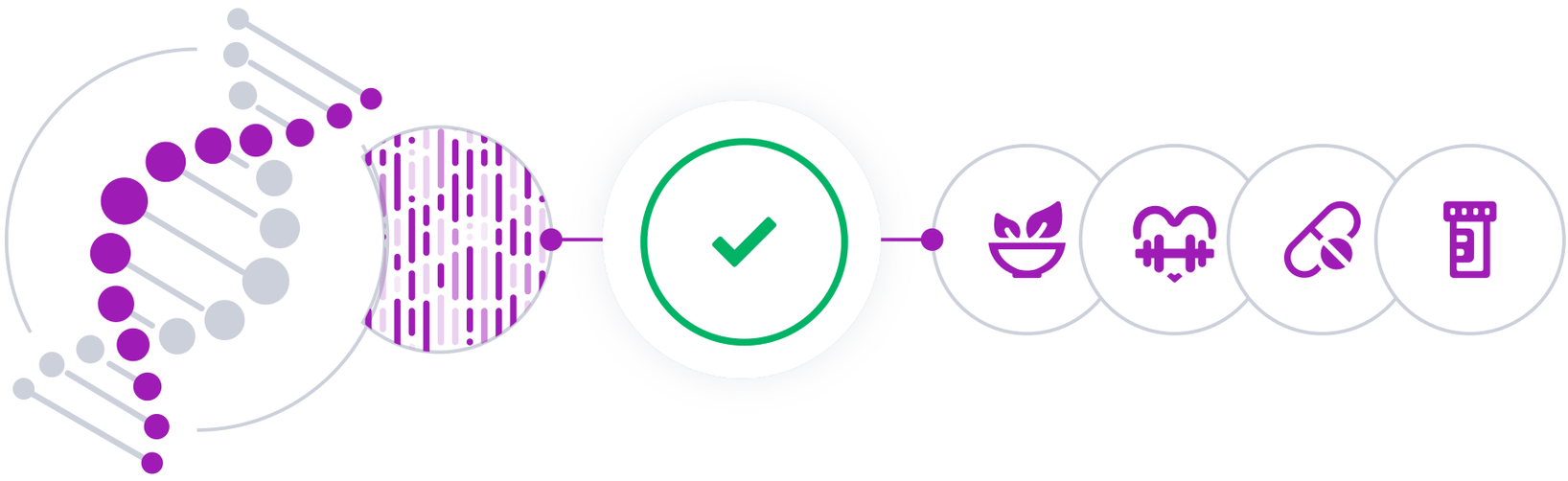
WEIGHT

**137lb** 62kg



# How this works

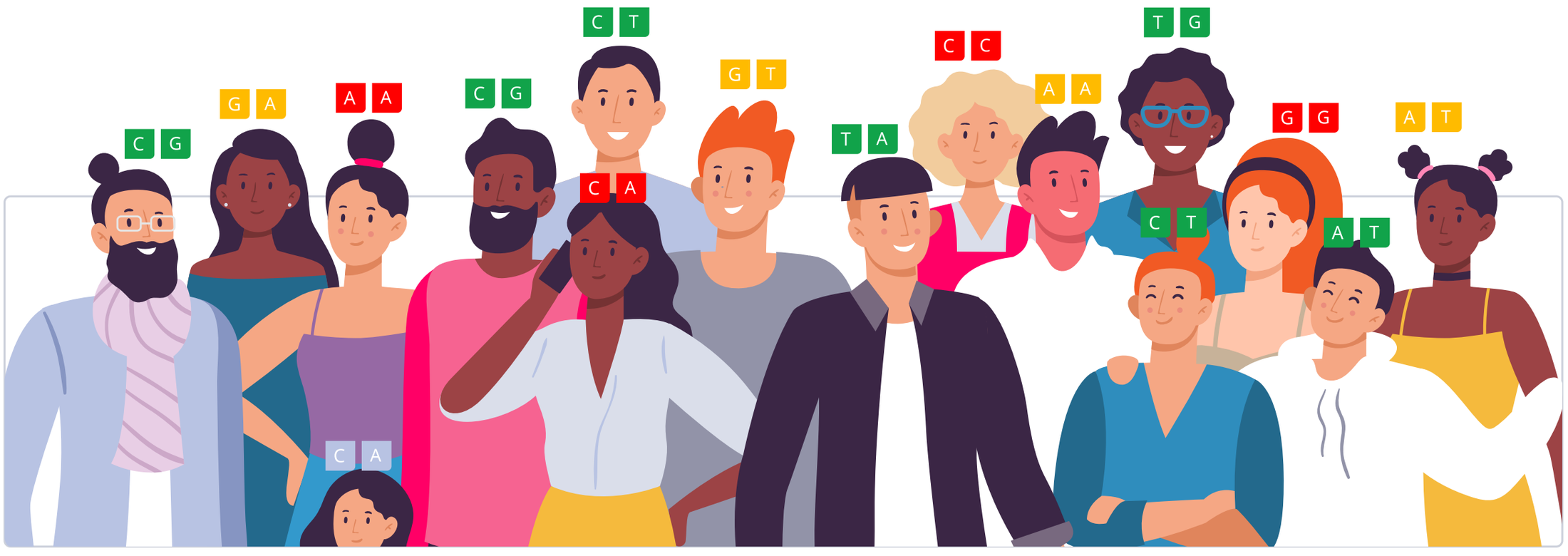
**Our Wellness Reports analyze how your DNA influences your health.**
**We then use this analysis to give you personalized risk estimates and recommendations.**



**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.

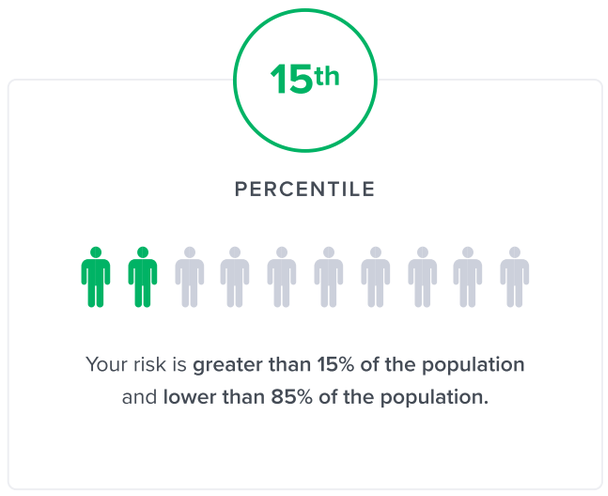
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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

The *LHCGR* gene encodes a receptor protein called the luteinizing hormone/chorionic gonadotropin receptor. As its name suggests, this protein acts as a receptor for luteinizing hormone and a similar hormone called chorionic gonadotropin to allow the body to respond appropriately to these hormones [R, R].

**Luteinizing hormone (LH)** is a hormone made by the pituitary gland. It plays a key role in reproductive function. In women, LH controls the menstrual cycle and stimulates ovulation. In men, it signals the testes to produce testosterone. Testosterone, in turn, stimulates sperm production [R, R].

**Chorionic gonadotropin (hCG)** is a hormone best known for starting a pregnancy. The placenta starts releasing hCG after a fertilized egg attaches to the wall of the uterus, a process called implantation. In men, hCG stimulates the development of testicular Leydig cells [R].

# LHCGR Genetics

The main *LHCGR* gene variant is **rs13405728**. Multiple studies have associated its major 'A' allele with an increased risk of PCOS. Women with this condition may have higher levels of testosterone, triglycerides, and LDL cholesterol if they carry this allele [R, R, R, R, R].

This variant has also been associated with an increased risk of endometroid adenocarcinoma and worse ovarian response to assisted reproductive technology [R, R, R].

Another well-researched polymorphism is **rs2293275**. Its minor 'T' allele has been associated with an increased risk of PCOS and disease progression, and higher testosterone but lower LH and LH/FSH values in women with this condition [R, R, R, R, R, R].

This variant has also been associated with accelerated ovarian aging and ovarian hyperstimulation syndrome and worse pregnancy outcomes after assisted reproductive technologies, but a higher number of oocytes retrieved [R, R, R, R].

In men, this variant has been associated with a lower risk of infertility, maldescended testicles, and aggressive prostate cancer [R, R, R].

The following variants have also been associated with an increased risk of PCOS:

- 'T' of **rs4953616** [R, R, R]
- 'T' of **rs7371084** [R, R]
- 'C' of **rs12470652** (only in Punjab) [R]

In men, the 'C' allele of rs7371084 has been associated with an increased risk of testicular cancer metastasis, as well as with higher LH levels and androgen sensitivity index [R].

TYPICAL GENETICS

**Predisposed to typical LHCGR genetics based on 5 genetic variants we looked at**

**Your top variants that most likely impact your genetic predisposition:**

| GENE | SNP | GENOTYPE |
|---|---|---|
| LHCGR | rs13405728 | AA |
| LHCGR | rs7371084 | TT |
| LHCGR | rs2293275 | TC |
| STON1-GTF2A1L | rs4953616 | CT |
| LHCGR | rs12470652 | TT |

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