SelfDecode™

Creatine

Biohacker Report

REPORT CATEGORY

FITNESS

Sample Client

Report date: 15 January 2026

Powered by omicsedge

Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

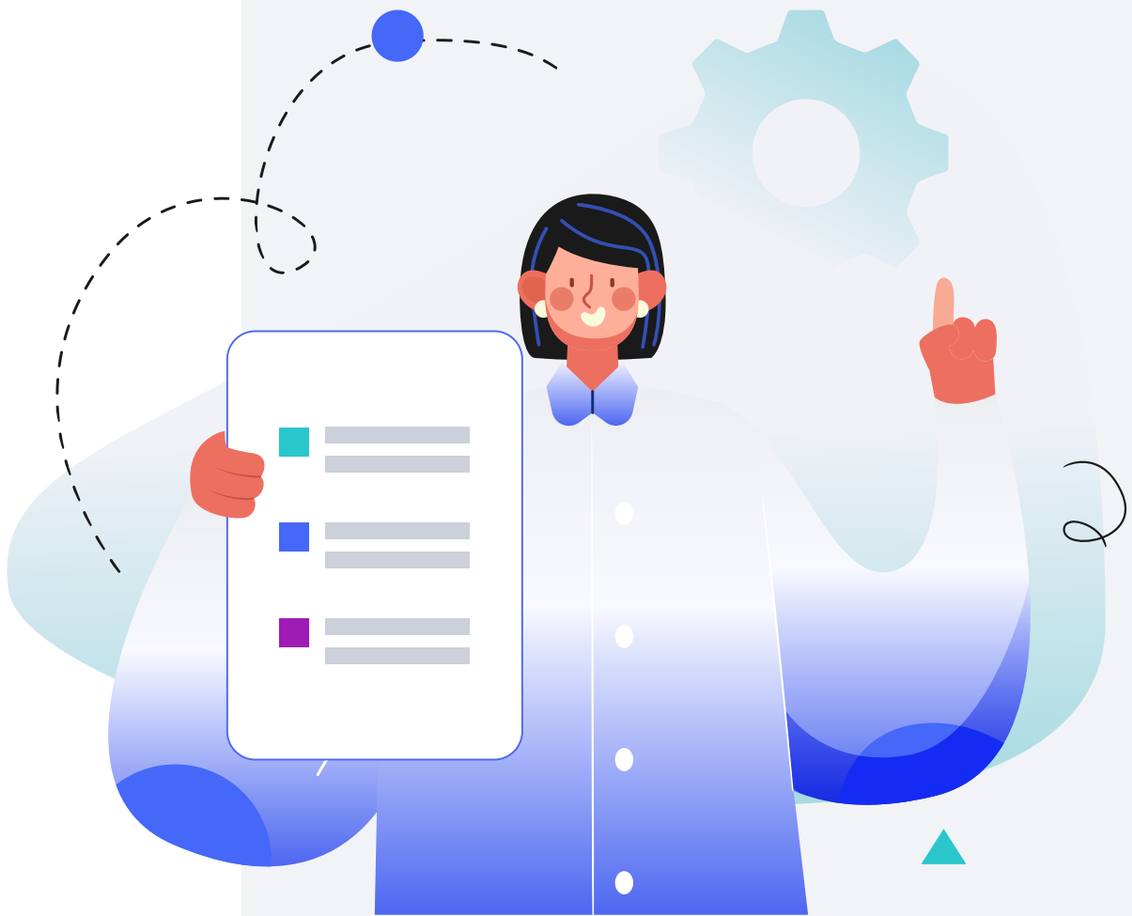
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

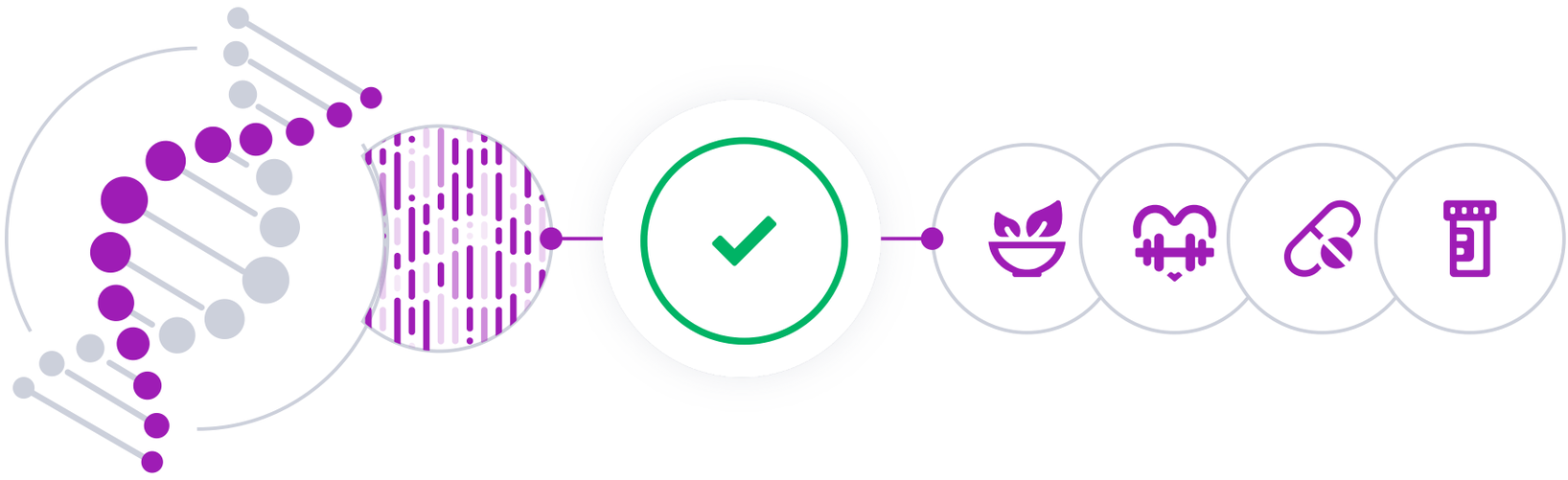


DISCLAIMER

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

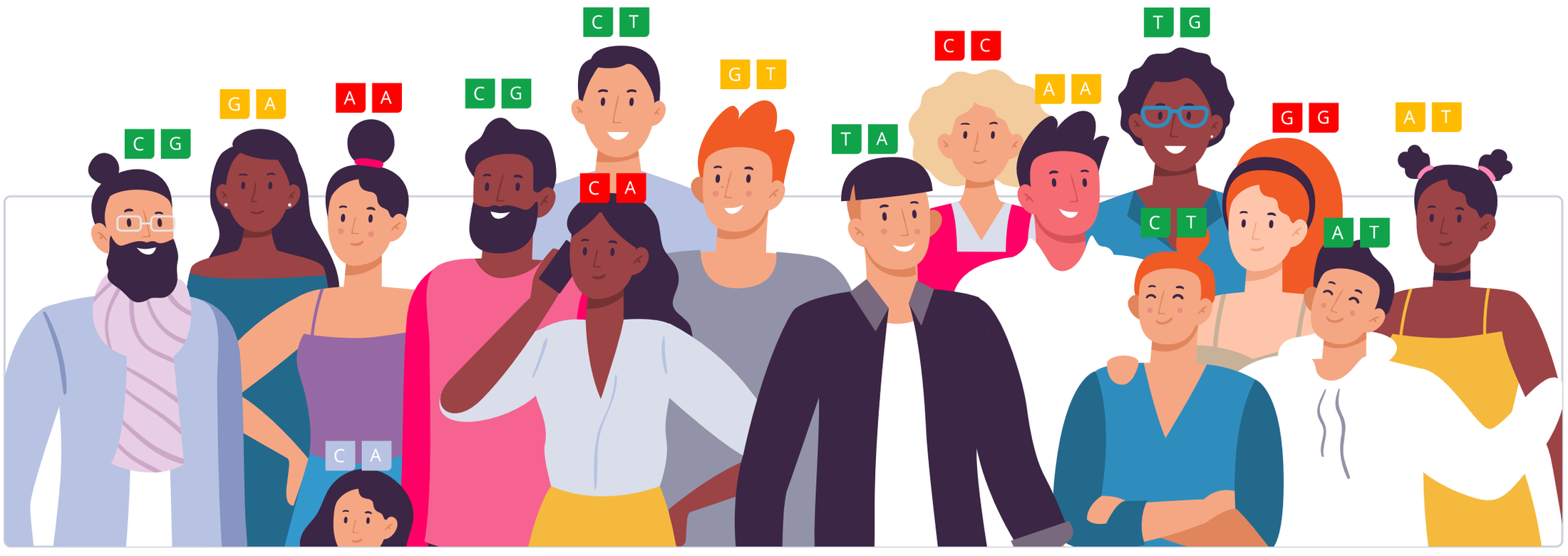
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

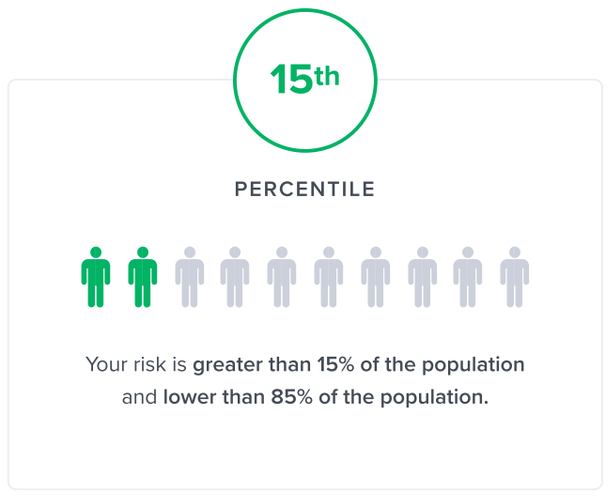
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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

Creatine (also known as α-methyl guanidine-acetic acid) is a substance naturally produced in the body from amino acids. Most of it is stored in muscle cells and released during physical activity. Creatine supplements raise muscle creatine stores, which enhances exercise performance and helps build muscles. Creatine food sources include meat and fish [R, R].

Most of the body's creatine is stored in skeletal muscles (95%) as phosphocreatine; the remainder is found in the brain, kidney, and liver. Phosphocreatine is charged with powerful phosphate groups that release a large amount of energy when the muscles need it. The average person uses about 2 g/day of creatine while athletes and bodybuilders have much higher requirements [R].

Creatine is absent from plant-based foods. Its main dietary sources include red meats (especially beef) and seafood [R].

Creatine has also become one of the most widely used nutritional supplements. **It's one of the best-researched supplements for increasing muscle strength and power in athletes**. Less known are its benefits beyond athletic performance, which extend to people with various muscle-wasting and neurological diseases [R].

Factors Influencing Creatine Levels

Up to 60% of differences in people's creatine levels may be due to genetics. Involved genes influence creatine synthesis and transport [R, R, R].

A low-protein or creatine-deficient diet, particularly in vegetarians or vegans, may lead to low creatine levels [R].

Low creatine levels may also indicate:

- Muscle diseases such as dystrophies or myopathies [R]
- Liver diseases such as cirrhosis or hepatitis [R]
- Genetic disorders such as GAMT or SLC6A8 deficiency [R, R]

Because creatine is stored in the muscles, people with a high muscle mass may have higher levels. Intense physical activity may also raise its levels due to the release of creatine from the muscles into the blood. This can also happen from trauma or conditions that cause muscle damage or wasting such as rhabdomyolysis [R, R].

Elevated creatine levels may also arise from excessive supplementation [R].

TYPICAL LEVELS

Likely typical creatine levels based on 11,877 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CPS1	rs1047891	AC
GATM	rs2486274	GT
CCDC77	rs7307754	CT

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	Creatine	4 g
2	Dietary Protein	
3	Exercise At Least One Hour a Day	1 hour

1

Creatine

IMPACT 5 / 5

EVIDENCE 5 / 5

How to implement

Take 4 grams of creatine supplement daily, ideally mixed with water or juice. This dosage can be maintained consistently without needing specific periods of cycling on or off.

TYPICAL STARTING DOSE

4 g

Description

Creatine is a popular dietary supplement among athletes and bodybuilders, known to enhance muscle performance during short bursts of high-intensity activities. It may help improve exercise performance and support muscle growth when used as directed.

Creatine is a compound naturally produced by the body. It's stored in the muscles and brain [R].

During exercise, creatine is released to boost performance and help build muscles. For this reason, it's a popular supplement among athletes [R, R].

Sources of creatine include [R]:

- Red meat
- Seafood
- Supplements

How it helps

Creatine supplements are available, typically for people who want to increase their muscle mass. Supplementation may raise creatine blood levels [R, R].

2

Dietary Protein

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Include a variety of protein sources such as meat, fish, eggs, dairy, beans, and nuts in your diet every day, aiming for at least 0.8 grams of protein per kilogram of body weight. For more active individuals or those looking to build muscle, increase intake to 1.2 to 2.0 grams per kilogram of body weight daily, spread out over all meals to maximize absorption.

Description

Protein is essential for building and repairing tissues, supporting muscle growth, and maintaining overall bodily functions. Adequate protein intake is crucial for overall health and well-being.

Foods that are high in protein include:

- Eggs
- Nuts
- Beef
- Chicken
- Fish
- Yogurt
- Tofu
- Pork
- Cottage cheese

How it helps

Creatine is absent from plant-based foods. Its main dietary sources include red meats (especially beef) and seafood [R].

In line with this, a low-protein or creatine-deficient diet, particularly in vegetarians or vegans, may lead to low creatine levels [R].

Make sure to include sufficient, high-quality proteins in your diet to reduce the risk of creatine deficiency.

3

Exercise At Least One Hour a Day

IMPACT 3 / 5

EVIDENCE 2 / 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

Because creatine is stored in the muscles, people with a high muscle mass may have higher levels. Intense physical activity may also raise its levels due to the release of creatine from the muscles into the blood. However, this increment may be temporary [R, R].