SelfDecode™

Lp-PLA2

Biohacker Report

REPORT CATEGORY

HEART & BLOOD VESSELS

Sample Client

Report date: 15 January 2026

Powered by omicsedge

Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

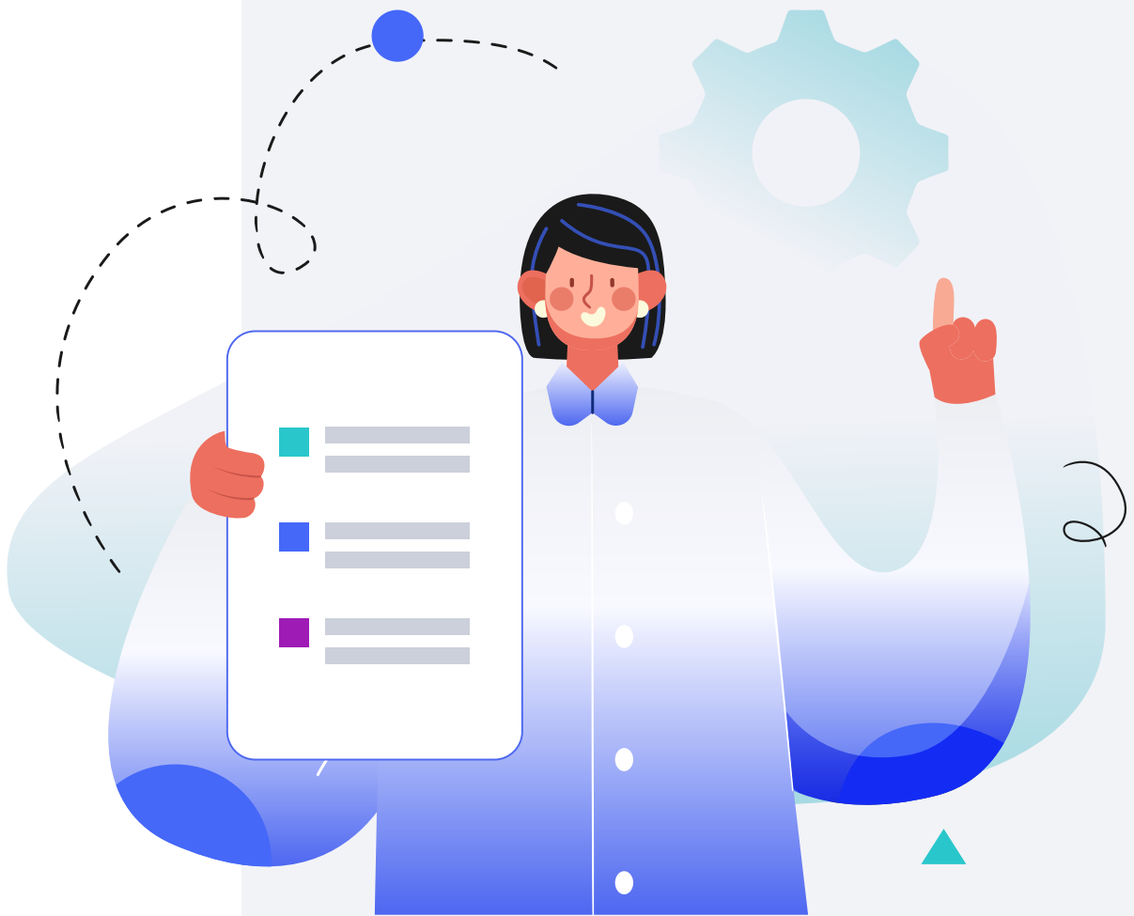
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

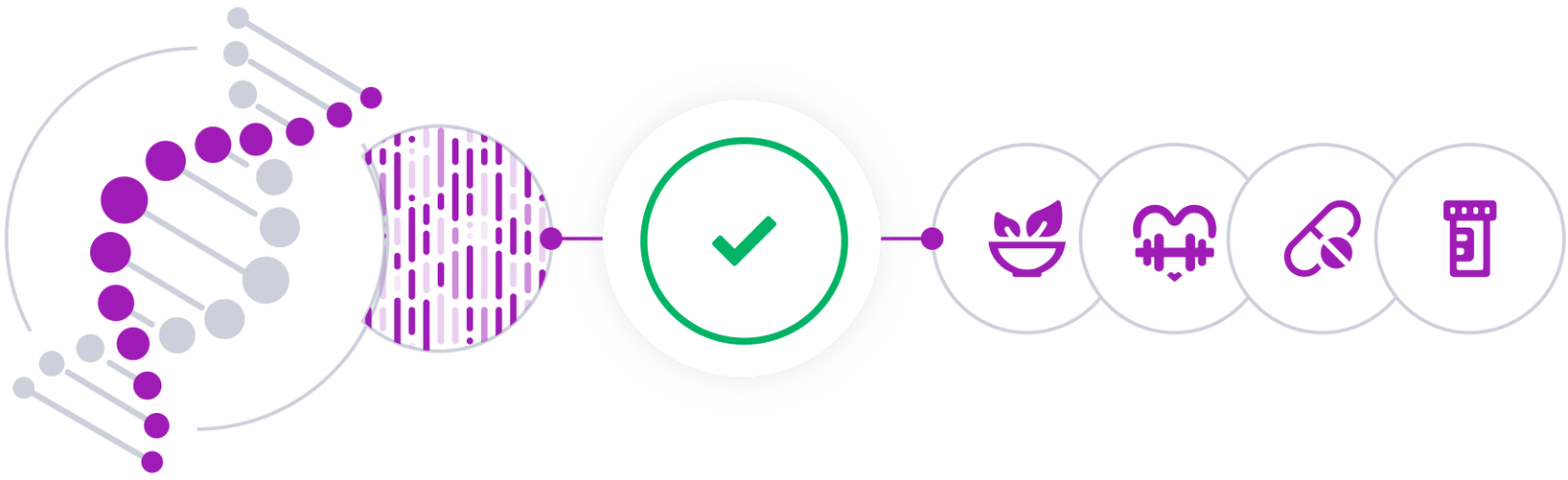


DISCLAIMER

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

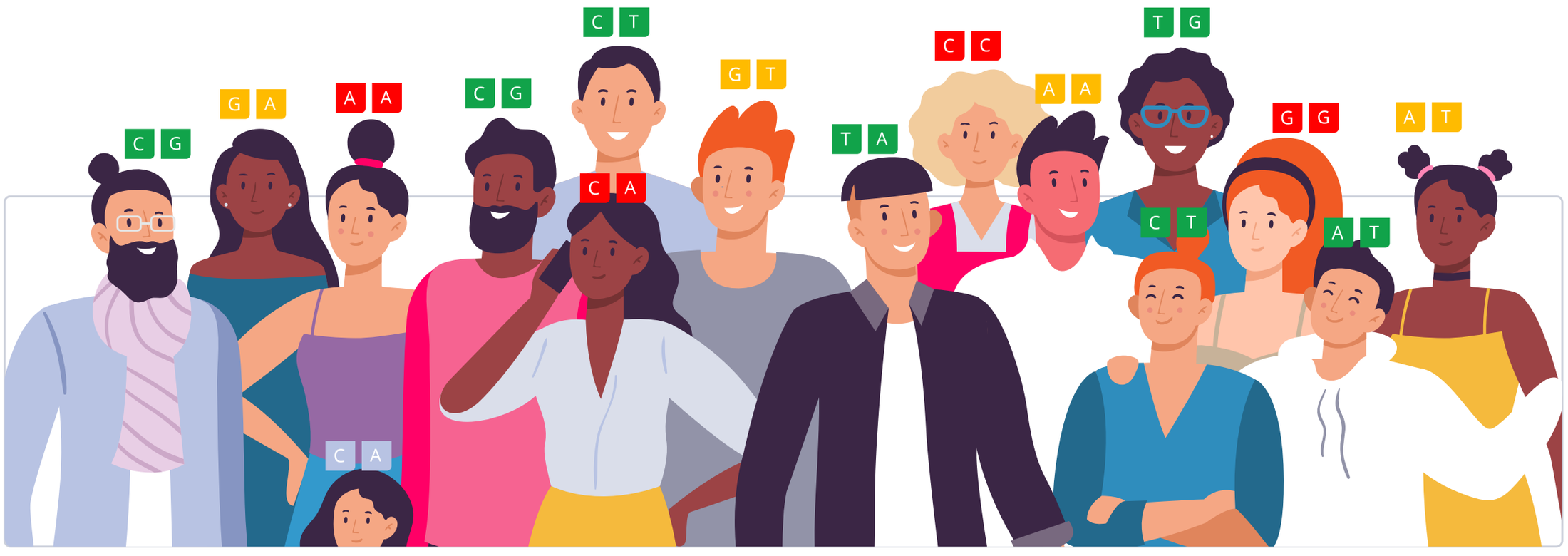
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

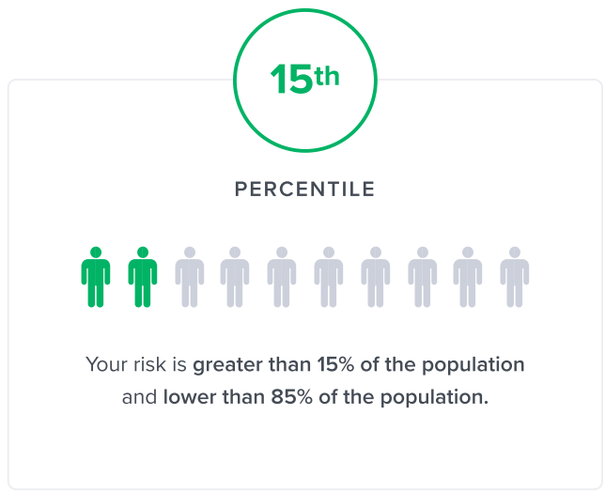
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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

Lp-PLA2, or lipoprotein-associated phospholipase A2, is an enzyme. It is produced by inflammatory cells (e.g., macrophages) in blood vessels.

Lp-PLA2 plays a role in and is a marker for the **inflammation of blood vessels**. Elevated levels of Lp-PLA2 have been linked with an increased risk of:

- **Artery hardening (atherosclerosis)**
- Heart disease
- Stroke

Risk Factors and Genetics

Up to **35%** of the differences in Lp-PLA2 may be due to **genetics** [R].

Some individuals may have a genetic predisposition to produce higher amounts of Lp-PLA2. This can contribute to a higher risk of cardiovascular diseases. However, the precise genetic factors influencing Lp-PLA2 levels are still under research.

Other factors influencing Lp-PLA2 levels include:

- **Age**: Levels might increase with age
- **Smoking**

Additionally, the following health conditions are also associated with elevated Lp-PLA2 levels:

- **Artery hardening (atherosclerosis)**
- High cholesterol
- Inflammation
- Diabetes
- High blood pressure

TYPICAL LEVELS

Predisposed to typical Lp-PLA2 levels based on 16 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
APOC1	rs445925	GG
LDLR	rs6511720	GG
APOB	rs6413458	GG
SORT1	rs7528419	AA
SORT1	rs12740374	GG
NLRC5	rs247616	TT
NLRC5	rs3764261	AA
SCARB1	rs11057841	CT
GCKR	rs1260326	TC
APOE	rs4420638	AA
PLA2G7	rs1805017	CC
SIDT2	rs964184	CC
PLA2G7	rs7756935	AA
PLA2G7	rs1362931	CC
MS4A6A	rs600550	TT
VMP1	rs11650106	CC

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	Aerobic Exercise (Cardio)	1 hour
2	Avoid Processed Carbs	
3	Avoid Secondhand Smoke	
4	Omega-3 (Fish Oil)	2000 mg
5	Strength Training	1 hour
6	Limit Saturated Fat	
7	Eat More Protein and Less Carbs	
8	Monounsaturated Fatty Acids (MUFAs)	
9	Whole Grains	
10	Alpha-Linolenic Acid (ALA)	
11	Probiotics	30 billion CFU
12	Alpha-Lipoic Acid	600 mg
13	Maintain Optimal Vitamin D Levels	1000 iu
14	Flaxseed Oil	15 g
15	Good Oral Hygiene	2 minutes
16	Methylfolate	400 mcg
17	Flaxseed	2 tbsp
18	Legumes	
19	Red Yeast Rice	500 mg
20	Olive Polyphenols	250 mg

1

Aerobic Exercise (Cardio)

IMPACT 3 / 5

EVIDENCE 2 / 5

How to implement

Engage in at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity activity each week. Distribute this time over at least 3 days per week, avoiding consecutive days of vigorous exercise to allow for recovery.

TYPICAL STARTING DOSE

1 hour

Description

Engaging in regular aerobic exercise, such as running, swimming, or cycling, offers numerous health benefits, including improved cardiovascular fitness, weight management, and mood enhancement. It supports overall physical and mental well-being while reducing the risk of chronic diseases.

Cardio, short for cardiovascular exercise, is any type of physical activity that temporarily increases your heart rate. Examples include **running, cycling, swimming, and brisk walking**.

Regular cardio exercise has many benefits for your overall health. It can help lower your risk of heart disease and diabetes, support weight loss, and improve your mood and energy levels. To get the most out of cardio, try to do it for at **least 30 minutes, 3-5 times a week**.

Interval training is a type of cardio that combines periods of high-intensity training with brief rest periods.

How it helps

Aerobic exercise helps to lower levels of lp-pla2 by improving cardiovascular health and reducing inflammation.

A study found that physical inactivity was strongly associated with higher Lp-PLA2 levels. The study defined inactivity as less than 20 METS (metabolic equivalent of task) per week, which is equivalent to roughly 7 hours of walking or 2 hours of running per week [R, R].

One study investigated the effects of diet and exercise on Lp-PLA2. The exercise consisted of aerobic and resistance training for 75-90 minute sessions 3 times a week. They found that Lp-PLA2 levels dropped an average of 65 ng/mL after 24 weeks of the program. However, it’s important to note that the study focused solely on patients with HIV [R].

2

Avoid Processed Carbs

IMPACT 3 / 5

EVIDENCE 2 / 5

How to implement

Eliminate or significantly reduce foods such as white bread, pastries, sodas, and other processed or refined sugars from your daily diet. Instead, focus on consuming whole grains, fruits, and vegetables. Aim to maintain this dietary change consistently over time to achieve and sustain health benefits.

Description

Processed carbs, like white bread and chips, are foods that have been changed from their natural state. They often have sugars and unhealthy fats added in, which can lead to weight gain and other health problems. Avoiding processed carbs and sticking with whole grains, fruits, and vegetables is better for maintaining a healthy weight and avoiding illnesses like diabetes and heart disease.

How it helps

Research shows that certain dietary changes can reduce Lp-PLA2 levels. Smart choices include [R, R, R]:

- Eating less carbs and more protein
- Choosing monounsaturated fats instead of saturated fats

In one study, substituting refined rice with whole grains and legumes resulted in a reduction in Lp-PLA2 activities in plasma and PBMCs, partly through improved glycemic control and increased protein consumption [R].

3

Avoid Secondhand Smoke

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Implementing a smoke-free lifestyle involves communicating your needs to family, friends, and coworkers, requesting they respect your choice by smoking away from you. At home, establish strict no-smoking policies indoors. When out, choose smoke-free venues and accommodations. Advocate for smoke-free environments in your community and support legislation that promotes public health by reducing exposure to secondhand smoke. Utilize air purifiers at home to reduce any residual particles.

Description

Avoiding secondhand smoke is crucial for maintaining good health. Exposure to secondhand smoke can lead to respiratory problems, cardiovascular disease, and an increased risk of lung cancer, even in non-smokers. Protecting oneself from secondhand smoke involves staying away from smoking areas, ensuring smoke-free environments at home and work, and advocating for smoke-free policies in public spaces.

How it helps

Smokers may have significantly higher (about 75 ng/mL more on average) Lp-PLA2 levels compared to non-smokers [R].

Even if you don’t smoke, you may still want to avoid environments where smoke is present. A study suggests that second-hand smoke can increase Lp-PLA2 as well [R].

4

Omega-3 (Fish Oil)

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take 1-2 g of omega-3 (fish oil) supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

2000 mg

Description

Omega-3 fatty acids are essential fats found in fatty fish like salmon, flaxseeds, and walnuts. They are known for their potential cardiovascular and brain health benefits, including reducing the risk of heart disease and supporting cognitive function.

Omega-3 fatty acids are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Our bodies produce less omega-3s than we need for optimal health, so it's important to get enough through food or supplements [R, R, R].

There are three major types of omega-3s: ALA, EPA, and DHA [R, R].

Fatty fish are rich in EPA and DHA. They include [R]:

- Salmon
- Tuna
- Herring
- Sardines

For optimal protection, try to get at least **two servings of fatty fish per week.** Fish oil supplements are available for those who don’t eat fish regularly [R].

How it helps

Omega-3 fatty acids found in fish oil can lower inflammation and reduce the activity of lp-pla2. This helps in reducing the risk of plaque formation in the arteries.

A study showed that omega-3 PUFA (1 g/day) reduced Lp-PLA2 mass by 10.7%, activity by 9.3%, and oxy-LDL by 10.9% in stable CAD patients after 30 days. These effects suggest omega-3 PUFA's potential cardiovascular benefits, particularly in reducing inflammation markers [R].

High doses of EPA (1800mg/day) significantly decreased Lp-PLA2 concentrations in healthy, normolipidemic subjects [R].

Prescription omega-3-acid ethyl esters (4g/day) reduced Lp-PLA2 concentrations in statin-treated subjects with hypertriglyceridemia [R].

A meta-analysis confirmed the ability of omega-3s to reduce lp-PLA2 levels [R].

However, omega-3 supplementation did not significantly change Lp-PLA2 mass or activity in healthy adults in three studies [R, R, R].

5

Strength Training

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Engage in strength training exercises, such as weight lifting or bodyweight exercises, for 60 minutes per session, 2 to 3 times per week. Ensure you work all major muscle groups and rest each muscle group for at least 48 hours before exercising it again.

TYPICAL STARTING DOSE

1 hour

Description

Strength training, also called resistance or *anaerobic* training, contracts the muscles against an external resistance for short periods of time. This helps gain muscle strength, tone, and mass. This can include activities like weight lifting, pushups, and crunches.

Strength training, also known as resistance training, is a type of physical exercise that uses resistance to build strength, anaerobic endurance, and size [R]. Some of the most common strength training methods include [R]:

- Weight lifting
- Bodyweight exercises like push-ups, pull-ups, squats, and lunges.
- Resistance bands
- Plyometrics or explosive force exercises

The benefits of strength training are numerous, and include [R]:

- Increased muscle strength
- Improved bone health
- Reduced risk of injury
- Improved balance and coordination
- Enhanced mood
- Boost metabolism

Consult with a doctor before starting any new exercise program, especially if you have any health conditions.

How it helps

A study found that physical inactivity was strongly associated with higher Lp-PLA2 levels [R, R].

One study investigated the effects of diet and exercise on Lp-PLA2. The exercise consisted of aerobic and resistance training for 75-90 minute sessions 3 times a week. They found that Lp-PLA2 levels dropped an average of 65 ng/mL after 24 weeks of the program. However, it's important to note that the study focused solely on patients with HIV [R].

6

Limit Saturated Fat

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Reduce your intake of saturated fats by choosing lean cuts of meat, opting for low-fat or fat-free dairy products, and using cooking oils high in unsaturated fats (like olive or canola oil) instead of butter or lard. Aim to keep saturated fat to less than 10% of your total daily calories. For someone consuming 2000 calories a day, this means 20 grams or less of saturated fat per day.

Description

Limiting saturated fat intake is crucial for managing cholesterol levels and reducing the risk of heart disease. Choosing lean protein sources and incorporating unsaturated fats into the diet supports cardiovascular health and overall well-being.

How it helps

Research shows that certain dietary changes can reduce Lp-PLA2 levels. Smart choices include [R, R, R]:

- Eating less carbs and more protein
- Choosing monounsaturated fats instead of saturated fats

7

Eat More Protein and Less Carbs

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Include a source of lean protein such as chicken, fish, beans, or tofu in each meal, aiming for 20-30 grams per serving, while reducing carbohydrate-rich foods like bread, pasta, and sweets, aiming to make proteins about 30-40% of your daily caloric intake. Replace at least one carbohydrate-heavy meal or snack with a high-protein option daily.

Description

A diet that includes more protein and fewer carbohydrates can promote weight management and satiety, potentially aiding in weight loss efforts. Protein-rich foods can help control hunger and support muscle maintenance.

Proteins, fats, and carbs are macronutrients. You need these nutrients in large (‘macro’) amounts. They provide your body with the energy it needs to function properly [R].

For a healthier diet, experts recommend eating foods that are higher in protein but lower in fat and carbs [R, R].

This is because simple carbs can spike your blood sugar levels. Likewise, too much saturated fat can increase “bad” (LDL) cholesterol [R, R, R, R, R, R].

Eating a lot of high-carb or high-fat foods may lead to conditions like diabetes, obesity, and heart disease [R, R, R, R].

Meanwhile, protein boosts muscle mass and helps control your weight [R].

How it helps

Research shows that certain dietary changes can reduce Lp-PLA2 levels. Smart choices include [R, R, R]:

- Eating less carbs and more protein
- Choosing monounsaturated fats instead of saturated fats

In one study, substituting refined rice with whole grains and legumes resulted in a reduction in Lp-PLA2 activities in plasma and PBMCs, partly through improved glycemic control and increased protein consumption [R].

8

Monounsaturated Fatty Acids (MUFAs)

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Incorporate monounsaturated fatty acids (MUFAs) into your diet by taking a daily supplement such as fish oil or olive oil capsules. Follow the dosage instructions on the product label, which typically suggest one to two capsules daily with meals.

Description

MUFAs are a type of healthy fat found in foods like avocados, olive oil, and nuts. They are known to support heart health by improving cholesterol levels and reducing the risk of cardiovascular disease.

How it helps

Research shows that certain dietary changes can reduce Lp-PLA2 levels. Smart choices include [R, R, R]:

- Eating less carbs and more protein
- Choosing monounsaturated fats instead of saturated fats

9

Whole Grains

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate at least three servings of whole grains into your daily diet. This can include consuming foods such as whole grain bread, brown rice, whole grain pasta, and oats. Aim to replace refined grains with whole grains at each meal for optimal benefits.

Description

Whole grains encompass a variety of grains like wheat, oats, and quinoa, where the entire grain kernel is intact. They are rich in fiber, vitamins, minerals, and antioxidants, supporting heart health and reducing the risk of chronic diseases.

Unlike refined grains, whole grains contain nutritious parts of the grain like bran and germ.

Whole grains provide many crucial nutrients, including:

- Fiber
- B-vitamins
- Iron
- Magnesium
- Phosphorus

Due to their high fiber content, whole grains don’t tend to spike blood sugar like refined grains do.

How it helps

In one study, substituting refined rice with whole grains and legumes reduced Lp-PLA2 activities in plasma and PBMCs, partly through improved glycemic control and increased protein consumption [R].

10

Alpha-Linolenic Acid (ALA)

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate foods high in alpha-linolenic acid (ALA) into your daily diet. This means eating about a tablespoon (14 grams) of flaxseeds or chia seeds, a quarter cup (30 grams) of walnuts, or using one tablespoon of flaxseed oil every day.

Description

Alpha-linolenic acid (ALA) is a type of omega-3 fatty acid found in plant-based sources like flaxseeds, chia seeds, and walnuts. It is essential for maintaining heart and brain health and is considered a healthy dietary fat.

How it helps

ALA supplementation improved blood clotting and reduced Lp-PLA2 activity in non-diabetic, hypercholesterolemic individuals by decreasing LDL-cholesterol oxidation [R].

11

Probiotics

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a probiotic supplement containing 10 billion or more live cultures once daily, preferably with a meal or as directed by the packaging or a healthcare provider.

TYPICAL STARTING DOSE

30 billion CFU

Description

Probiotics are live beneficial bacteria and yeasts that can support gut health and digestive function when consumed as supplements or found in fermented foods like yogurt and sauerkraut. They may be beneficial to gut health, immune function, blood sugar, and mood.

Probiotic bacteria are "good" bacteria found mainly in the large intestine. They support your body and mind by [R, R, R, R, R, R, R, R]:

- Maintaining gut health
- Supporting a healthy immune system
- Improving your mood
- Helping to maintain healthy blood sugar

Prebiotics are certain types of fiber and other complex carbs that serve as food for gut bacteria. **They support gut health by helping boost the activity and growth of "good" bacteria** [R, R].

Prebiotics are also added to foods and supplements. Common prebiotic ingredients are [R, R]:

- Oligo-fructose
- Oligo-galactose
- Inulin

Mixtures of probiotics and prebiotics are known as **synbiotics** [R].

How it helps

In a 12-week study, probiotics Lactobacillus curvatus HY7601 and Lactobacillus plantarum KY1032 reduced Lp-PLA2 levels in overweight subjects. The reduction in Lp-PLA2 was linked to decreases in body fat mass and oxidized LDL, indicating that probiotic-induced weight loss is associated with lower Lp-PLA2 activity, which may have cardiovascular benefits [R].

12

Alpha-Lipoic Acid

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 600-1800 mg of alpha-lipoic acid daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

600 mg

Description

Alpha-lipoic acid is a natural antioxidant found in almost every cell in your body. People use alpha-lipoic acid to help with issues like skin aging, weight loss, and high blood sugar [R, R, R].

People use alpha-lipoic acid to help with [R, R, R, R]:

- Complications of high blood sugar
- Skin aging
- Weight loss
- Carpal tunnel syndrome

How it helps

In one study, alpha lipoic acid (ALA) supplementation significantly decreased total Lp-PLA2 mass and improved Lp-PLA2 distribution among lipoproteins in type 2 diabetic patients [R].

13

Maintain Optimal Vitamin D Levels

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Check your vitamin D levels, they should ideally be in the 30-66 ng/mL range. If your levels are lower than that, take a vitamin D supplement, 1000-4000 IU daily, to reach an optimal range.

TYPICAL STARTING DOSE

1000 iu

Description

Vitamin D, often referred to as the "sunshine vitamin," can be synthesized by the skin when exposed to sunlight, as well as being found in fish, eggs, and fortified milk. It helps regulate calcium absorption, promoting strong bones and a healthy immune system. Vitamin D deficiency can lead to conditions like rickets in children and osteoporosis in adults.

Your body needs vitamin D for strong bones. Vitamin D also plays a role in [R]:

- Mood
- Immunity
- Heart health
- Blood sugar control

Sunlight is our main source of vitamin D. Experts recommend getting at least **5-15 minutes of midday sun, 2-3 times per week**. People with darker skin and those living at high latitudes may need longer periods of sun exposure [R, R].

Foods like fish, eggs, and fortified milk provide small amounts of vitamin D. **People lacking vitamin D should consider taking a supplement** [R].

How it helps

Vitamin D supplementation (4000 IU/day for 15 weeks) reduced lp-PLA2 levels in people with sleep apnea [R].

One study found a link between low vitamin D and high lp-PLA2 levels, but another study did not [R, R].

14

Flaxseed Oil

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 1 to 2 tablespoons (15-30 g) of flaxseed oil daily. It can be taken with or without food. For best results, use consistently for at least 2 months.

TYPICAL STARTING DOSE

15 g

Description

Flaxseed oil is a source of healthy fats, particularly alpha-linolenic acid (ALA), an omega-3 fatty acid. It can help support cardiovascular health and may have anti-inflammatory properties when used as part of a well-rounded diet.

Flaxseed is a common ingredient in bakery products. Some people also use it as a health food to support digestion [R].

Flaxseed is rich in many compounds, including [R]:

- Vitamins and minerals
- Protein
- Fiber
- Omega-3 fatty acids (ALA)

How it helps

Flaxseed consumption is associated with improved Lp-PLA2 activity in people with heart disease [R].

α-linolenic acid (ALA) from flaxseed oil may not cause significant changes in Lp-PLA2 mass or activity. However, it may change oxidized LDL, which is associated with changes in Lp-PLA2 mass [R].

ALA supplementation improved blood clotting and reduced Lp-PLA2 activity in non-diabetic, hypercholesterolemic individuals by decreasing LDL-cholesterol oxidation [R].

15

Good Oral Hygiene

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Brush your teeth at least twice a day for two minutes each time using fluoride toothpaste. Floss daily to remove plaque from places your toothbrush can't reach and consider using mouthwash. Visit your dentist at least twice a year for professional cleanings and checkups.

TYPICAL STARTING DOSE

2 minutes

Description

Good oral hygiene, which includes regular brushing, flossing, and dental check-ups, is crucial for preventing tooth decay, gum disease, and maintaining overall oral health. A healthy mouth contributes to overall well-being and can prevent dental issues that may impact systemic health.

Oral hygiene refers to practices that keep the mouth healthy. Good habits include [R, R]:

- Gently brushing the teeth and tongue for two minutes, at least twice a day
- Flossing daily
- Using a toothpaste with fluoride and a soft toothbrush
- Replacing a worn toothbrush at least every 3 months

To help maintain good oral hygiene, it is also important to regularly see dental professionals. They can help prevent and address issues with your teeth and gums.

How it helps

People who have a history of gum disease have significantly higher Lp-PLA2 levels, suggesting that good oral hygiene can reduce your risk of high Lp-PLA2 and heart disease [R].

16

Methylfolate

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take an L-methyl folate supplement (400-800 micrograms daily), ideally with a meal, to improve absorption. This dosage is recommended for adults, including pregnant women, to support overall health, especially to reduce the risk of neural tube defects in developing fetuses. Continue daily use as part of your regular supplement routine.

TYPICAL STARTING DOSE

400 mcg

Description

Folate, a B-vitamin, is crucial for DNA synthesis, cell growth, and the formation of red blood cells. Adequate folate intake supports overall health and reduces the risk of neural tube defects during pregnancy.

Vitamin B9 (*folate*) plays an essential role in [R, R, R]:

- Making DNA
- Metabolism
- Energy production

SelfDecode recommends L-methylfolate as the preferred folate supplement for those who need one. It is superior to folic acid because it doesn't require activation, but the research is still ongoing [R, R].

How it helps

In a study of CHD patients with hyperhomocysteinemia, a higher dose (0.8 mg) of folic acid reduced Lp-PLA2 levels and improved systolic blood pressure. A lower dose (0.4 mg) wasn't effective [R].

17

Flaxseed

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Consume 2 tablespoons of ground flaxseed daily. You can add it to your breakfast cereal, smoothies, or salads.

TYPICAL STARTING DOSE

2 tbsp

Description

Flaxseed is a nutrient-dense food that's high in fiber and omega-3 fatty acids. It may contribute to heart health, promote digestive regularity, and help manage cholesterol levels when included in a balanced diet.

Flaxseed is a common ingredient in bakery products. Some people also use it as a health food to support digestion [R].

Flaxseed is rich in many compounds, including [R]:

- Vitamins and minerals
- Protein
- Fiber
- Omega-3 fatty acids (ALA)

How it helps

Flaxseed consumption (30 g/day) may improve Lp-PLA2 activity in people with heart disease [R].

18

Legumes

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a serving of legumes, such as beans, lentils, chickpeas, or peas, into your diet at least four times a week. A serving size is approximately half a cup cooked. Ensure to prepare them properly by soaking and rinsing beans, if applicable, to reduce anti-nutrients and improve digestibility.

Description

Legumes, such as beans, lentils, and chickpeas, are excellent sources of plant-based protein, fiber, and various vitamins and minerals. Including legumes in your diet can promote satiety and support digestive health.

Legumes are plants from the *Fabaceae* family. Their edible seeds are called **pulses**. Legumes are important food staples and sources of carbohydrates, fiber, protein, iron, and other key nutrients.

Common legumes include:

- Peanuts
- Beans
- Chickpeas
- Peas
- Lentils

How it helps

In one study, substituting refined rice with whole grains and legumes reduced Lp-PLA2 activities in plasma and PBMCs, partly through improved glycemic control and increased protein consumption [R].

19

Red Yeast Rice

IMPACT 1 / 5

EVIDENCE 0 / 5

How to implement

Take a 500 mg capsule of red yeast rice supplement once daily, preferably with your evening meal to help with absorption and efficacy.

TYPICAL STARTING DOSE

500 mg

Description

Red yeast rice is a fermented product made from rice and red yeast (Monascus purpureus). It has a long history of use in traditional Chinese medicine, and it is commonly used today as a dietary supplement to help lower cholesterol levels due to the presence of naturally occurring compounds called monacolins.

Red yeast rice is made when a type of fungus grows on rice. As the fungus ferments the rice, it produces a chemical called *monacolin K*. This chemical is very similar to a cholesterol-lowering drug [R].

People mostly use red yeast rice to manage their cholesterol. It may also help with [R, R, R]:

- Inflammation
- High blood pressure
- High blood sugar

How it helps

A blend of red yeast rice and olive extract reduced Lp-PLA2 by 7% in people with metabolic syndrome [R].

20

Olive Polyphenols

IMPACT 1 / 5

EVIDENCE 0 / 5

How to implement

Take olive polyphenol supplements with a meal, ideally containing fats to enhance absorption. Dosages typically range from 250 to 1000 mg daily, based on the product's concentration and purity. It is advised to follow the specific dosage recommended on the supplement's label or by a healthcare professional. For ongoing benefit, incorporate it into your daily routine.

TYPICAL STARTING DOSE

250 mg

Description

Olive polyphenols are plant compounds found in olives and olive products. They have been associated with a reduced risk of chronic diseases, including heart disease, by supporting healthy blood vessels and reducing oxidative stress.

How it helps

A blend of red yeast rice and olive extract reduced Lp-PLA2 by 7% in people with metabolic syndrome [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.