

IL6 Gene (Inflammation)

Gene Report

REPORT CATEGORIES —



INFLAMMATION &
AUTOIMMUNITY



IMMUNITY &
INFECTIONS

Sample Client

Report date: 15 January 2026

Table of Contents

03 How this works

- 04 Impact
- 05 Evidence
- 06 Some things to keep in mind

07 Introduction

08 Your genetics

09 Your recommendations

33 Next Steps

- 33 Your Lab Results

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.

In total, we analyze up to 83 million genetic variants.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:



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, a few 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

Interleukin-6 (IL-6) is a cytokine encoded by the [IL6](#) gene that has either proinflammatory or anti-inflammatory properties, depending on the circumstances and the tissue that secretes it. It has complicated mechanisms of effect and interacts with many other cytokines and inflammatory signals [\[R\]](#), [\[R\]](#).

Being on the crossroads of both pro- and anti-inflammatory pathways, it's really important for IL-6 levels to be balanced. Studies suggest that having low IL-6 levels may impair immune function and may make people more vulnerable to infections. High IL-6 levels, on the other hand, have been linked to chronic inflammation and inflammatory disease [\[R\]](#).

IL-6 is typically increased when the body is diseased or stressed. Conditions associated with increased IL-6 include obesity, chronic [stress](#), too little sleep, overeating sugar, smoking, excess alcohol, and overly strenuous exercise [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

IL6 Genetics and Health

Since IL-6 can have both pro-inflammatory and anti-inflammatory properties, variants with decreased activity may increase the risk of infections while reducing chronic inflammation [R, R, R].

By far, the most well-researched *IL6* polymorphism is [rs1800795](#) (also known as the “-174G>C” polymorphism). The major 'G' allele of this SNP has been linked with higher levels of IL-6, while the 'C' allele has been associated with lower IL-6 levels [R].

The ‘G’ variant has been associated with some health benefits such as:

- [Faster muscle recovery and increased power performance](#) [R, R]
- [Increased longevity](#) [R]
- [Reduced risk of obesity](#) [R, R, R]
- [Reduced risk and severity of PTSD](#) [R]
- Reduced incidence of respiratory infections [R]
- Reduced risk of type 2 diabetes and insulin resistance [R, R]
- Reduced risk of blood clots [R]
- Decreased risk of coronary artery disease (especially in smokers or drinkers) [R, R]
- Decreased risk of cervical cancer [R, R, R]
- Decreased risk of prostate cancer [R]
- Decreased risk of PCOS [R]

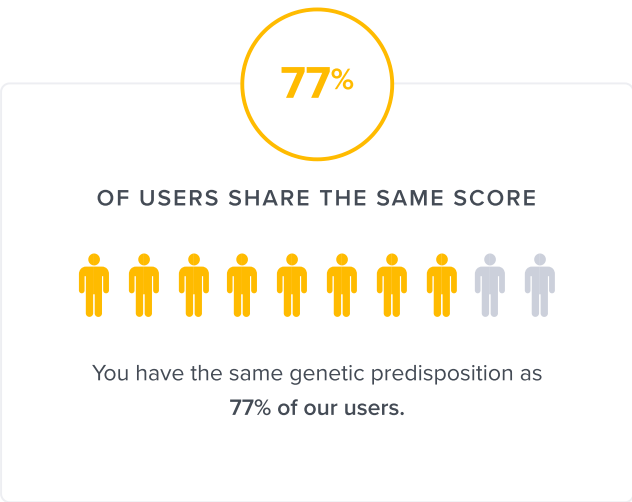
However, it may also increase the risk of some conditions such as:

- Gum disease [R, R]
- Rheumatoid arthritis [R]
- Coronary artery disease [R]
- Liver cancer [R]



TYPICAL ACTIVITY

Likely typical IL6 activity based on the genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
IL6	rs1800795	GG

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			DOSAGE
1	Exercise At Least One Hour a Day	1 hour	2	Mediterranean Diet	
3	Anti-Inflammatory Diet		4	Omega-3 (Fish Oil)	2000 mg
5	Ginger	500 mg	6	Cinnamon	1 g
7	L-Carnitine	1 g	8	Relaxation Techniques	30 minutes
9	Sleep for 7+ Hours		10	Pomegranate	
11	Curcumin	500 mg	12	Coenzyme Q10 (CoQ10)	100 mg
13	Whole Grains		14	Pomegranate Juice	
15	Flaxseed Oil	15 g	16	Flaxseed	2 tbsp
17	Tai Chi	1 hour	18	Bilberry	
19	Cruciferous Vegetables		20	Green Tea	400 mg
21	Magnesium	350 mg	22	Quercetin	250 mg
23	Extra Virgin Olive Oil (EVOO)		24	Magnesium Sulfate	200 mg
25	Cocoa				

1



Exercise At Least One Hour a Day

IMPACT

4 / 5

EVIDENCE

5 / 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

Regular, moderate exercise may reduce inflammatory markers such as IL6 in people of all ages. Both strength training and cardio may help. You can also combine both training types [\[R, R, R, R, R, R\]](#).

Exercise may also reduce inflammation linked to chronic health conditions. These include [\[R, R\]](#):

- Type 2 diabetes
- Heart disease

Note that inflammation may briefly increase after intense exercise, such as running or cycling [\[R, R, R\]](#).

 PERSONALIZED TO YOUR GENES

Long-term exercise may reduce inflammation more in people with your [IL6](#) gene variant [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
STEAP1B	rs1800797	GG	

2



Mediterranean Diet

IMPACT4 / 5

EVIDENCE3 / 5

How to implement

Incorporate a variety of primarily plant-based foods, such as fruits, vegetables, whole grains, nuts, and legumes, into every meal. Choose healthy fats, like olive oil, over saturated fats and consume fish and poultry at least twice a week. Limit red meat to a few times a month and include a moderate amount of dairy products. Opt for water and red wine in moderation as your beverages.

Description

The [Mediterranean diet](#) is based on the traditional cuisine from the Mediterranean regions. It moderates the intake of red meat and dairy, while being rich in fruits and vegetables, whole grains, and healthy fats ([olive oil](#)).

The [Mediterranean diet](#) focuses on traditional cuisine from the Mediterranean regions. It’s rich in [\[R\]](#):

- [Olive oil](#)
- Fruits and vegetables
- Whole grains
- Nuts and seeds
- Fish

This type of diet may **reduce inflammation and protect the brain and heart** [\[R, R, R, R\]](#).

Limited intake of animal products, saturated fat, and refined sugar likely contribute to the health benefits of the Mediterranean diet [\[R\]](#).

How it helps

The Mediterranean diet is an anti-inflammatory diet rich in compounds like polyphenols and [omega-3s](#) and shown to lower IL-6 levels [\[R, R, R, R\]](#).

Olive oil is a key component of many anti-inflammatory diets. Adding **1-50 mg** of olive oil to your meals every day may help reduce inflammation [\[R\]](#).

3



Anti-Inflammatory Diet

IMPACT4 / 5

EVIDENCE3 / 5

How to implement

Incorporate foods rich in omega-3 fatty acids, such as salmon and flaxseeds, fruits, vegetables, nuts, and whole grains into your daily meals. Avoid processed foods, red meats, and refined sugars. Aim for a balanced diet consisting mostly of plant-based foods and lean protein sources, adjusting portions sizes to meet your individual nutritional needs and health goals.

Description

An anti-inflammatory diet focuses on reducing inflammation in the body by emphasizing foods rich in anti-inflammatory compounds, such as fruits, vegetables, fatty fish, nuts, and seeds, while minimizing processed foods and those high in added sugars and trans fats.

Anti-inflammatory diets use healthy foods to reduce inflammation. These diets are generally high in [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Colorful fruits and vegetables
- Nuts and seeds
- Fish
- Olive oil
- Tea

They also tend to restrict [\[R\]](#), [\[R\]](#):

- Processed food
- Sugar and refined carbs
- Red meat

The [Mediterranean diet](#) and the DASH diet are good examples of anti-inflammatory diets [\[R\]](#), [\[R\]](#).

How it helps

Following an anti-inflammatory diet may help reduce inflammation. A popular example is the Mediterranean diet. It’s rich in anti-inflammatory compounds like polyphenols and [omega-3s](#) [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Olive oil is a key component of many anti-inflammatory diets. Adding **1-50 mg** of olive oil to your meals every day may help reduce inflammation [\[R\]](#).

4



Omega-3 (Fish Oil)

IMPACT

3 / 5

EVIDENCE

4 / 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

Supplementation with **omega-3s from fish (1.7-4.2 g/day for 6-24 weeks)** may help reduce low-grade inflammation, including IL-6 levels [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Omega-3s may also reduce inflammation linked to chronic health conditions such as stomach or colorectal cancer [\[R\]](#), [\[R\]](#), [\[R\]](#).

Please note: *Fish oil can interact with blood thinners (like aspirin, Plavix, and Coumadin). Consult your doctor before taking fish oil* [\[R\]](#).

5



Ginger

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take a 500 mg ginger supplement daily, preferably with a meal to enhance absorption and minimize potential stomach discomfort.

TYPICAL STARTING DOSE

500 mg

Description

Ginger is a versatile spice known for its potential anti-inflammatory and digestive benefits. It may help alleviate nausea, reduce muscle soreness, and support gastrointestinal comfort when consumed as part of a balanced diet.

[Ginger root](#) is a cooking spice and a traditional remedy. People mostly use it to relieve [\[R\]](#):

- Nausea
- Menstrual cramps
- Joint pain

How it helps

Ginger may have anti-inflammatory and antioxidant effects. Supplementing with ginger (1-3 g/day for 6-12 weeks) may reduce inflammatory markers such as IL-6 [\[R, R\]](#).

6



Cinnamon

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take a 1 g cinnamon supplement once daily, ideally with a meal to aid absorption. This can be in the form of a capsule or tablet. Continue this regimen as long as it aligns with your health goals and under the guidance of a healthcare provider.

TYPICAL STARTING DOSE

1 g

Description

Cinnamon is a popular spice that may have various health benefits, including improving blood sugar control, reducing inflammation, and providing antioxidants. It's commonly used in both culinary and herbal applications.

[Cinnamon](#) is a spice made from the bark of *Cinnamomum* trees. Cinnamon can [\[R\]](#):

- Decrease inflammation
- Fight [oxidative stress](#)
- Kill microbes

Cinnamon is mainly used in cooking and fragrances. **As a natural remedy, people use cinnamon to reduce blood sugar** [\[R\]](#).

There are two main types of cinnamon [\[R\]](#):

- Ceylon or ‘true’ cinnamon (*Cinnamomum verum*)
- Chinese or Cassia cinnamon (*Cinnamomum cassia*)

How it helps

Cinnamon (1.5-3 g/day) may help reduce inflammatory markers such as IL-6 [\[R\]](#).

Please note: *Cassia cinnamon is high in coumarin. This substance may harm the liver in large amounts. Consult your doctor before using large amounts of Cassia cinnamon* [\[R, R, R\]](#).

7



L-Carnitine

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take 500 mg of L-carnitine supplement daily with a glass of water, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

1 g

Description

L-carnitine is an amino acid-like compound that plays a role in energy metabolism and helps prevent toxic substances from building up in cells. It is often used in dietary supplements for its potential to support muscle recovery, reduce fatigue, and enhance athletic performance.

[L-carnitine](#) is a compound that helps you burn fat. It also prevents toxic substances from building up in cells [\[R\]](#).

Your body can usually make enough carnitine to meet its needs. You can also get it from **meat and dairy products** [\[R\]](#).

People use L-carnitine for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Heart problems
- Overactive thyroid
- Fertility problems
- Blood sugar control
- Weight control

How it helps

L-carnitine (1-2 g/day for at least 12 weeks) may reduce inflammatory markers such as IL-6 [\[R\]](#), [\[R\]](#).

8



Relaxation Techniques

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Incorporate relaxation techniques such as deep breathing exercises, meditation, or yoga into your daily routine. Spend at least 15-30 minutes each day practicing one of these techniques, preferably in a quiet, comfortable space without interruptions.

TYPICAL STARTING DOSE

30 minutes

Description

Relaxation techniques encompass various methods like deep breathing, yoga, meditation, and progressive muscle relaxation, aimed at reducing stress and promoting mental and physical relaxation. Practicing these techniques regularly can help manage stress, improve mental clarity, and enhance overall emotional well-being.

We all get stressed from time to time.

[Stress](#) can help you deal with a challenge or avoid danger. However, **it’s not healthy to be stressed for a long time** [\[R\]](#), [\[R\]](#).

Relaxation techniques such as [yoga](#) and [meditation](#) can relieve stress in different ways. Most of them focus on breathing and help you get rid of negative thoughts and emotions [\[R\]](#).

People use relaxation techniques to improve conditions like [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Anxiety
- Depression
- Chronic pain

Progressive muscle relaxation is another relaxation technique. In this technique, you focus on tensing and relaxing different parts of your body. It is common to start with the toes and slowly work your way up to the neck and head [\[R\]](#), [\[R\]](#).

Autogenic training is a relaxation technique that a person may carry out on their own. It uses exercises that take the mind’s attention to bodily sensations such as warmth and heaviness [\[R\]](#), [\[R\]](#).

How it helps

Stress is linked to chronic inflammation. Causes of stress-related inflammation include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Work-related problems
- Relationship problems
- PTSD

For some people, relaxation techniques may help. They include [\[R\]](#), [\[R\]](#):

- Mindfulness
- Yoga
- Tai chi
- Qi gong

Relaxation techniques combined with exercise may also help [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Stress may have a stronger impact on inflammation in people with your [IL6](#) gene variant [\[R\]](#). Try to reduce stress by practicing relaxation techniques.

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
IL6	rs1800795	GG	

9



Sleep for 7+ Hours

IMPACT

2 / 5

EVIDENCE

4 / 5

How to implement

Ensure you allocate enough time in your schedule to achieve a minimum of 7 hours of sleep each night. This might involve going to bed earlier or adjusting your evening routine to promote relaxation and make it easier to fall asleep.

Description

Optimizing sleep involves adopting healthy sleep habits and creating a sleep-conducive environment to ensure restorative and sufficient sleep duration. It supports cognitive function, mood stability, and overall physical health. Most experts recommend getting **at least 7 hours of good-quality sleep each night**.

[Sleep](#) supports your body and mind [\[R, R\]](#). More precisely, sleep helps:

- Support brain health [\[R, R\]](#)
- Maintain a healthy weight and appetite [\[R, R, R\]](#)
- Regulate blood pressure [\[R, R\]](#)
- Balance blood sugar [\[R, R\]](#)

Ways to sleep better include [\[R\]](#):

- Reducing your bright light exposure (screen time) in the evenings
- Sticking to a regular sleep schedule
- Avoiding hunger or large meals before bed
- Avoiding nicotine, caffeine, and alcohol before bed
- Maintaining a sleep area that’s cool, dark, and quiet

How it helps

IL-6 concentrations change dramatically over the course of a night’s sleep. Some researchers believe that sleep deprivation decreases IL-6, which may help explain why loss of sleep depresses the immune system and makes us more susceptible to infection [\[R\]](#).

Dysregulated sleep, with increased REM sleep and decreased slow-wave sleep, may increase inflammatory IL-6 and cause its own set of problems. To balance IL-6 (in either direction), it is important to get a full night’s sleep every night, going to bed and getting up at the same time each day if possible [\[R, R\]](#).

Sleep-related problems may increase inflammation. These include [\[R, R, R\]](#):

- Disturbed sleep
- Sleep apnea (interrupted breathing during sleep)

10



Pomegranate

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Incorporate pomegranate into your diet by consuming fresh pomegranate seeds, drinking pure pomegranate juice, or adding pomegranate extract to smoothies or yogurts. Aim for at least one serving per day, which could be about half a cup of seeds or a glass (8 ounces) of juice, to gain its health benefits.

Description

Pomegranate is a fruit native to regions of the Middle East and Mediterranean. It is rich in antioxidants and nutrients such as vitamin C, vitamin K, and dietary fiber. It contains punicalagins, anthocyanins, and ellagic acid, which give it anti-inflammatory effects and potential heart health benefits.

[Pomegranates](#) are red fruits that contain seeds covered by edible sweet coats. They are rich in antioxidants [\[R\]](#), [\[R\]](#).

Pomegranate may reduce inflammation and support heart health. People use pomegranate seed oil and peel in cosmetics and traditional medicine [\[R\]](#), [\[R\]](#).

How it helps

A meta-analysis of 16 trials and 572 participants found that supplementation with pomegranate (50-500 mL/day juice 500-1,000 mg/day extract, or 400 mg/day oil) lowers hs-CRP (by 6.57 mg/L) and IL-6 (by 1.68 pg/mL), but not standard CRP [\[R\]](#).

Another meta-analysis (6 trials and 296 participants) found that pomegranate lowers IL-6 by 1.02 pg/mL [\[R\]](#).

A meta-analysis of 25 studies found that supplementation with flavonoids from pomegranate extract, green tea, and red wine lowers IL6 levels by 0.346-0.556 pg/mL [\[R\]](#).

However, pomegranate has no effect in people with type 2 diabetes according to a meta-analysis of 7 trials and 350 participants [\[R\]](#).

11



Curcumin

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Take a 500 mg curcumin supplement daily with food. To enhance absorption, take it with a meal that contains fats or oils since curcumin is fat-soluble.

TYPICAL STARTING DOSE

500 mg

Description

Curcumin is a compound found in turmeric known for its anti-inflammatory and antioxidant properties. It has been studied for its potential to reduce inflammation, support joint health, and contribute to overall well-being.

[Turmeric](#) is a yellow spice from India. It may reduce inflammation and [oxidative stress](#) [\[R\]](#).

The most important active compound in turmeric is **curcumin**. People use curcumin for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Joint pain
- Hay fever
- Mood
- High blood sugar
- Gut health
- Liver health

How it helps

Curcumin (1-2.4 g/day for 4-8 weeks) may reduce inflammatory markers such as IL-6. The effects may be stronger in people with a higher degree of inflammation. However, some studies found no benefits [\[R\]](#), [\[R\]](#), [\[R\]](#).

Note that curcumin is hard to absorb. Look for supplements with *bioavailable* curcumin, which is easier to absorb. Combining it with [piperine](#) (a compound in black pepper) may also help [\[R\]](#), [\[R\]](#).

Please note: *curcumin may interfere with iron absorption due to its iron-chelating properties, potentially exacerbating anemia or making it harder to manage. If you have anemia, consult your healthcare provider before using curcumin or turmeric supplements* [\[R\]](#), [\[R\]](#), [\[R\]](#).

12



Coenzyme Q10 (CoQ10)

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Take a 100 mg Coenzyme Q10 (CoQ10) supplement once daily with a meal that contains fat for better absorption.

TYPICAL STARTING DOSE

100 mg

Description

Coenzyme Q10 (CoQ10) is a naturally occurring antioxidant that plays a crucial role in cellular energy production. It is often taken as a supplement to support heart health, improve energy levels, and provide antioxidant protection, especially for individuals with certain medical conditions or as they age.

[Coenzyme Q10](#) (CoQ10) is a compound that helps enzymes work better. By doing so, CoQ10 helps improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Energy levels
- Antioxidant protection
- Heart health
- Muscle strength
- Blood sugar control

The amount of CoQ10 made by your body decreases as you get older. Luckily, you can also get it from food or supplements. Good sources of CoQ10 include [\[R\]](#), [\[R\]](#):

- Organ meats
- Fatty fish
- Whole grains

How it helps

Two meta-analyses (the largest one with 17 trials) found that supplementation with coenzyme Q10 (typically, 100-300 mg/day for 8-12 weeks) reduced CRP (by 0.25-0.35 mg/L) and IL-6 (by 0.72-1.61 pg/mL) levels [\[R\]](#), [\[R\]](#).

Another meta-analysis (9 trials and 509 patients) found that coenzyme Q10 supplementation lowers IL-6 levels by 0.37 pg/mL [\[R\]](#).

However, a meta-analysis of 9 trials and 428 participants found its effects on these two markers insignificant [\[R\]](#).

Moreover, coenzyme Q10 doesn’t lower CRP or IL-6 levels in people with CKD and CAD according to 2 meta-analyses including 20 trials [\[R\]](#), [\[R\]](#).

13



Whole Grains

IMPACT2 / 5

EVIDENCE3 / 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

Whole grains are a good source of fiber. Some studies suggest they may lower IL-6 levels. However, the evidence is mixed [[R](#), [R](#), [R](#), [R](#)].

14



Pomegranate Juice

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Drink 8 ounces (about 240 milliliters) of 100% pomegranate juice daily, ideally in the morning to incorporate it into your daily routine. Continue this practice regularly as part of your daily diet.

Description

Pomegranate juice is made from the seeds and pulp of the fruit. It is rich in nutrients, including vitamin C, vitamin K, folate, potassium, and dietary fiber., and provides a source of dietary antioxidants that may provide addition benefits for inflammation and heart health.

[Pomegranates](#) are red fruits that contain seeds covered by edible sweet coats. They are rich in antioxidants [\[R, R\]](#).

Pomegranate may reduce inflammation and support heart health. People use pomegranate seed oil and peel in cosmetics and traditional medicine [\[R, R\]](#).

How it helps

A meta-analysis of 16 trials and 572 participants found that supplementation with pomegranate (50-500 mL/day juice 500-1,000 mg/day extract, or 400 mg/day oil) lowers hs-CRP (by 6.57 mg/L) and IL-6 (by 1.68 pg/mL), but not standard CRP [\[R\]](#).

Another meta-analysis (6 trials and 296 participants) found that pomegranate lowers IL-6 by 1.02 pg/mL [\[R\]](#).

However, pomegranate has no effect in people with type 2 diabetes according to a meta-analysis of 7 trials and 350 participants [\[R\]](#).

15



Flaxseed Oil

IMPACT2 / 5

EVIDENCE3 / 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 may reduce inflammatory markers such as IL-6. However, not all studies found beneficial effects. Studied types include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- **Whole flaxseed** (30-40 g/day for 6-12 weeks)
- **Flaxseed oil** (15-30 mL/day for 6-12 weeks)

The omega-3s and fiber in flaxseed may be responsible for this effect [\[R\]](#).

16



Flaxseed

IMPACT

2 / 5

EVIDENCE

3 / 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 may reduce inflammatory markers such as IL-6. However, not all studies found beneficial effects. Studied types include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- **Whole flaxseed** (30-40 g/day for 6-12 weeks)
- **Flaxseed oil** (15-30 mL/day for 6-12 weeks)

The omega-3s and fiber in flaxseed may be responsible for this effect [\[R\]](#).

17



Tai Chi

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Practice Tai Chi for 30 to 60 minutes at least twice a week. Choose a quiet, spacious area and follow along with a qualified instructor, either in person at a class or through an online video tutorial, to ensure proper technique and maximum benefit.

TYPICAL STARTING DOSE

1 hour

Description

Tai Chi is a traditional Chinese mind-body practice involving slow, flowing movements and deep breathing. It is known for its potential to reduce stress, improve balance, and enhance overall physical and mental well-being.

Tai chi involves gentle movements and breathing to strengthen and relax the mind and body. Practicing tai chi may help [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Manage pain
- Improve fitness
- Increase well-being
- Improve sleep and mood

How it helps

Stress is linked to chronic inflammation. Causes of stress-related inflammation include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Work-related problems
- Relationship problems
- PTSD

Tai chi may lower inflammation and IL6 levels, especially when it involves a high exercise amount [\[R\]](#), [\[R\]](#).

18



Bilberry

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Incorporate bilberry fruits into your diet by eating a small handful, approximately 1/4 to 1/2 cup, daily. You can also consume bilberry in the form of tea, by steeping 1-2 teaspoons of dried bilberries in hot water for about 10 minutes, up to three times a day.

Description

Bilberry is a fruit rich in antioxidants and flavonoids, which may contribute to eye health and circulatory function. It's often used in supplements for its potential to support vision and overall well-being.

How it helps

Consuming fresh bilberries (400 g/day) for 8 weeks slightly reduced CRP, IL-6, and other inflammatory markers in a non-placebo-controlled trial of 27 people with features of metabolic syndrome [R].

Similarly, drinking bilberry juice for 4 weeks significantly reduced CRP, IL-6, and other inflammatory markers in a non-placebo-controlled trial of 62 people at risk of heart disease [R].

Consuming 500 g/day bilberries for 7 days lowered IL-6 and other inflammatory markers in a placebo-controlled trial of 24 people with gum disease [R].

19



Cruciferous Vegetables

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Incorporate a serving of cruciferous vegetables, such as broccoli, cauliflower, Brussels sprouts, kale, or cabbage, into at least one meal each day. A serving size is about a half cup cooked or one cup raw. Try to maintain this habit consistently over time for the best health outcomes.

Description

Cruciferous vegetables like broccoli, cauliflower, and kale are rich in vitamins, fiber, and antioxidants. Including them in your diet can promote overall health and may offer cancer-protective properties.

Cruciferous vegetables are a group of vegetables that belong to the Brassicaceae family. They are rich in fiber, vitamins, minerals, and other nutrients.

Some common cruciferous vegetables include broccoli, cauliflower, cabbage, kale, and brussels sprouts.

How it helps

Consumption of cruciferous and apiaceous vegetables was shown to significantly reduce circulating interleukin-6 (IL-6) levels, although it did not consistently affect CRP levels. The study found genotype-dependent responses, indicating that genetic factors may influence how people benefit from these vegetables [R].

20



Green Tea

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Consume 400 mg of green tea extract daily. This can be taken in the form of capsules or tablets available that specify the amount of green tea extract. Ensure the supplement is taken according to the product's specific instructions, usually once a day with water.

TYPICAL STARTING DOSE

400 mg

Description

Tea is a beverage made by steeping the leaves of the *Camellia sinensis* plant in hot water. It comes in various types, including black, green, white, and herbal teas, and is known for its diverse flavors and potential health benefits due to antioxidants and other bioactive compounds.

[Green](#) and black tea are made from the same plant (*Camellia sinensis*). This plant is processed in different ways to make each type of tea [\[R, R\]](#).

Tea contains antioxidants called **flavonoids**, which may help prevent [\[R, R, R, R\]](#):

- Heart disease
- Cancer
- Diabetes

How it helps

High green tea intake is associated with reduced CRP. Green tea may also reduce IL-6 levels [\[R, R, R, R, R\]](#).

However, not all studies found these same benefits for drinking green tea or supplementing with green tea extract [\[R, R\]](#).

Please note: polyphenols from green tea may bind to iron and form insoluble complexes, which reduces iron absorption in the gut. If you have anemia, consult your healthcare provider before using green tea [\[R\]](#).

21



Magnesium

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take up to 350 mg of magnesium daily as a supplement, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

350 mg

Description

Magnesium is an essential mineral involved in various bodily functions, including muscle contractions, nerve signaling, and bone health. Maintaining adequate magnesium levels through diet or supplements can support overall well-being and reduce the risk of magnesium deficiency-related health issues.

[Magnesium](#) is an essential mineral. Your body needs it for [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Muscle, nerve, and bone function
- Blood sugar and blood pressure control
- DNA and protein production
- Strong immunity

Women need **310-320 mg** of magnesium per day, while men need **400-420 mg** [\[R\]](#).

Foods rich in magnesium include **nuts, seeds, and leafy greens**. Magnesium is also available as a supplement [\[R\]](#).

How it helps

A diet high in magnesium is linked to lower inflammation. Foods rich in magnesium include **nuts, seeds, and leafy greens** [\[R\]](#).

In a placebo-controlled trial of 9 male runners, supplementation with magnesium sulfate (500 mg/day) for 7 days reduced post-exercise IL-6 levels by 1.36 pg/mL [\[R\]](#).

22



Quercetin

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take 250-1000 mg of quercetin supplement daily with a glass of water, preferably with a meal to aid in its absorption.

TYPICAL STARTING DOSE

250 mg

Description

Quercetin is a natural plant flavonoid found in various foods, particularly in fruits and vegetables like apples, onions, and broccoli. It is used as a dietary supplement and is valued for its potential antioxidant and anti-inflammatory properties.

[Quercetin](#) is a **plant-based antioxidant**. It supports the immune system and helps lower inflammation [\[R\]](#), [\[R\]](#).

Good sources of quercetin include [\[R\]](#):

- Apples
- Onions
- Tea

People mainly use quercetin supplements to relieve allergies [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

Some studies found that high-dose quercetin only lowered IL-6 levels in women and people with diagnosed diseases. However, it may not lower IL-6 in people with metabolic syndrome [\[R\]](#), [\[R\]](#), [\[R\]](#).

Please note: *quercetin may inhibit the production of the thyroid hormone T4 (thyroxine). Individuals with thyroid disorders, particularly hypothyroidism or low T4 levels, should exercise caution when using quercetin and always consult with a healthcare provider before taking this supplement* [\[R\]](#).

Please note: *quercetin may interfere with iron absorption due to its iron-chelating properties, potentially exacerbating anemia or making it harder to manage. If you have anemia, consult your healthcare provider before using quercetin supplements* [\[R\]](#).

23



Extra Virgin Olive Oil (EVOO)

IMPACT2 / 5

EVIDENCE1 / 5

How to implement

Incorporate 1-2 tablespoons of extra virgin olive oil into your daily diet. Use it as a dressing for salads, vegetables, or incorporate it into cooking, but avoid using it at high temperatures to preserve its health benefits.

Description

Extra virgin olive oil is a high-quality olive oil obtained from the first pressing of olives. It is rich in monounsaturated fats and antioxidants, like polyphenols, and is associated with various health benefits, including heart health and anti-inflammatory properties.

[Olive oil](#) is fat from the olive, a traditional tree of the Mediterranean Basin [\[R\]](#).

Olive oil has anti-inflammatory and antioxidant properties. It may also reduce the risk of [\[R\]](#), [\[R\]](#):

- Heart disease
- Diabetes
- Cancer

Olive oil is also the primary fat source in the [Mediterranean diet](#), which may improve brain and heart health [\[R\]](#).

How it helps

Adding **1-50 mg** of olive oil to your meals every day may help reduce inflammation [\[R\]](#).

24



Magnesium Sulfate

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 200-400 mg of magnesium sulfate orally with water once daily, ideally in the evening or as directed by your healthcare provider. Continue this supplementation as recommended by your healthcare provider, often for several weeks to months for optimal benefits.

TYPICAL STARTING DOSE
200 mg

Description

Magnesium sulfate, also known as Epsom salt, is used in baths and topical applications to soothe sore muscles, alleviate stress, and promote relaxation. It is believed to be absorbed through the skin, providing a calming effect on muscles and the nervous system.

How it helps

In a placebo-controlled trial of 9 male runners, supplementation with magnesium sulfate (500 mg/day) for 7 days reduced post-exercise IL-6 levels by 1.36 pg/mL [\[R\]](#).

25



Cocoa

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate 30-60 grams of high-quality dark chocolate (with at least 70% cocoa content) into your daily diet. Enjoy it as a snack or dessert to reap the potential heart health benefits.

Description

[Cocoa](#) comes from the beans of the *Theobroma cacao* tree. It is found any many foods and drinks, and people have also used it as a medicine for thousands of years. The numerous active components of cocoa can help with weight control, fatigue, mood, and digestion, among others.

[Cocoa](#) comes from the beans of the *Theobroma cacao* tree. It’s often used for making chocolate, hot chocolate, and pastries. People have also used it as a medicine for over a thousand years [\[R\]](#), [\[R\]](#).

Cocoa contains many active components that likely help [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Control weight
- Lower fatigue
- Boost mood
- Improve digestion
- Balance blood sugar
- Support heart health

Note that pure cocoa is likely a healthier choice than chocolate. If you eat chocolate, choose dark chocolate with more cocoa and less sugar and fat.

How it helps

A study on type 2 diabetic people found that cocoa consumption significantly reduced inflammatory markers including TNF-α, hs-CRP, and IL-6. This suggests that cocoa may have anti-inflammatory effects in people with chronic conditions associated with high inflammatory levels [\[R\]](#).

Next Steps

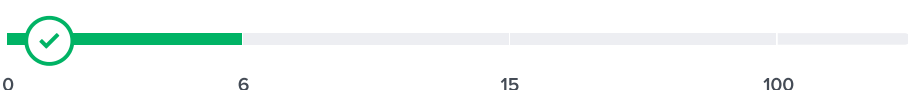
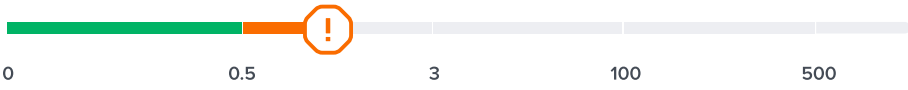
Remember, your genes only tell one important part of your health story!

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.

	ESR	1 mm/hr		9 Nov 2025
	Neutrophils (%)	69.3 %		9 Nov 2025
	Neutrophils (Absolute)	4.8 x10^9/L		9 Nov 2025
	hs-CRP	1.6 mg/L		9 Nov 2025