SelfDecode™

HDL Cholesterol

DNA Health Report

REPORT CATEGORY

HEART & BLOOD VESSELS

Sample Client

Report date: 15 January 2026

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Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

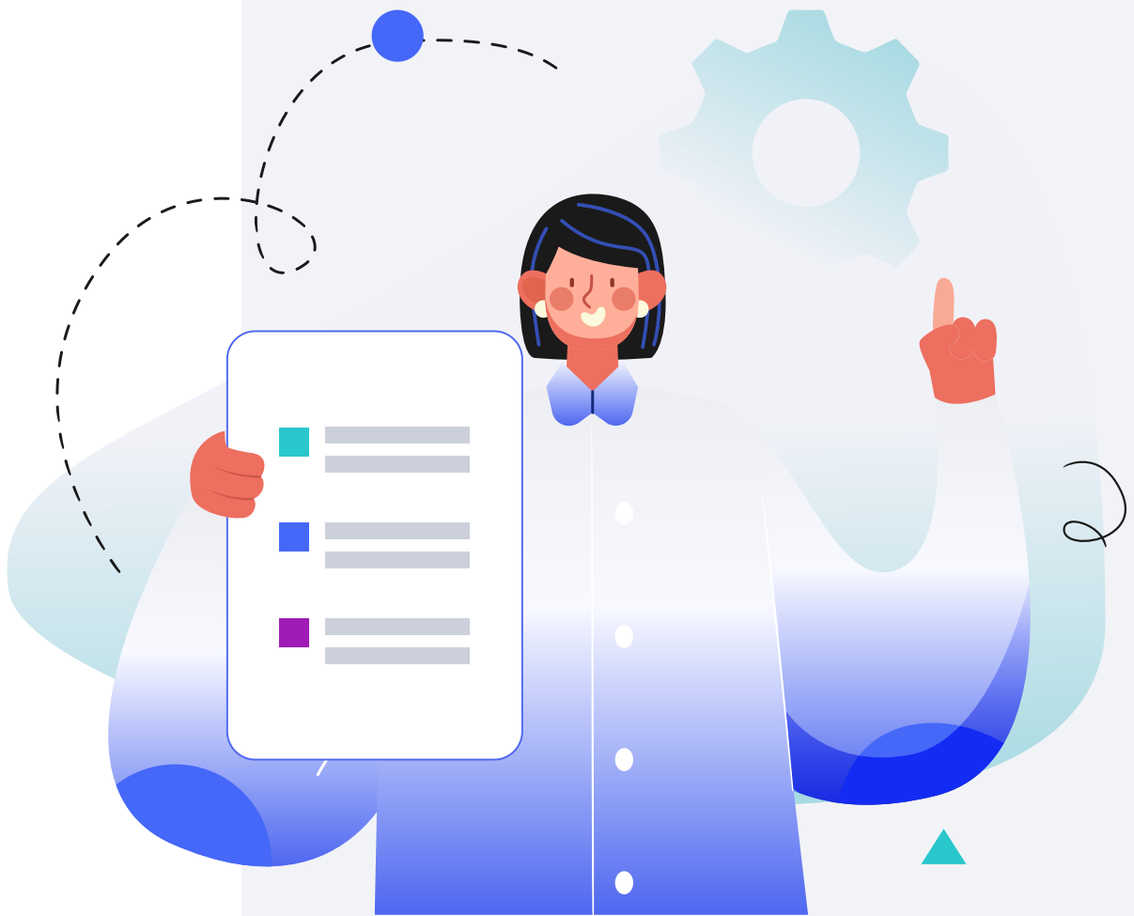
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

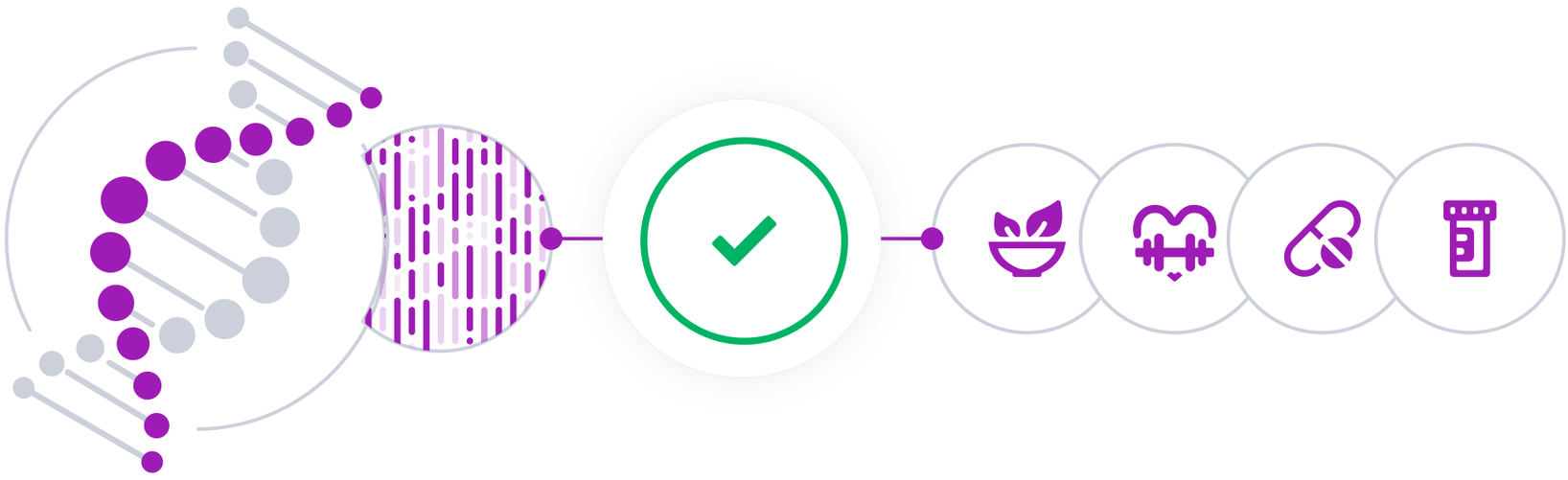


DISCLAIMER

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

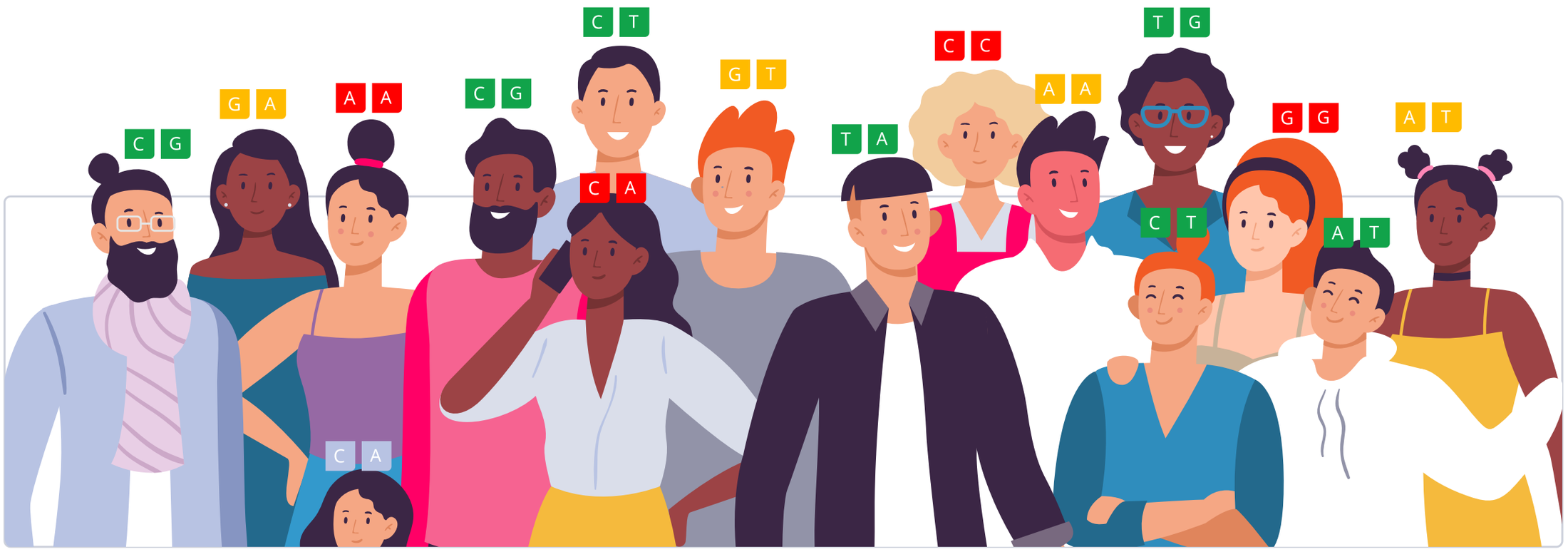
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

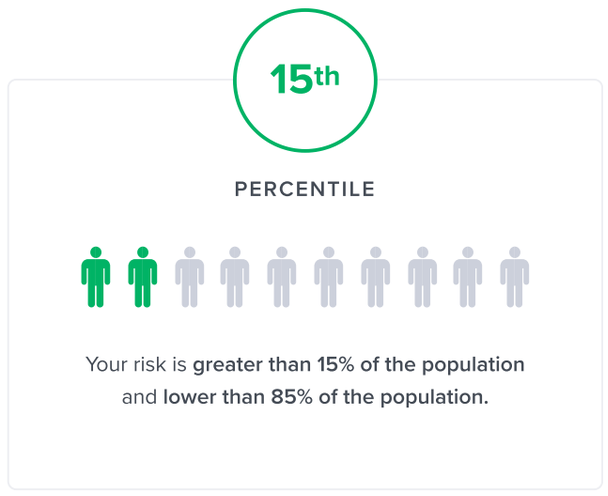
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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.



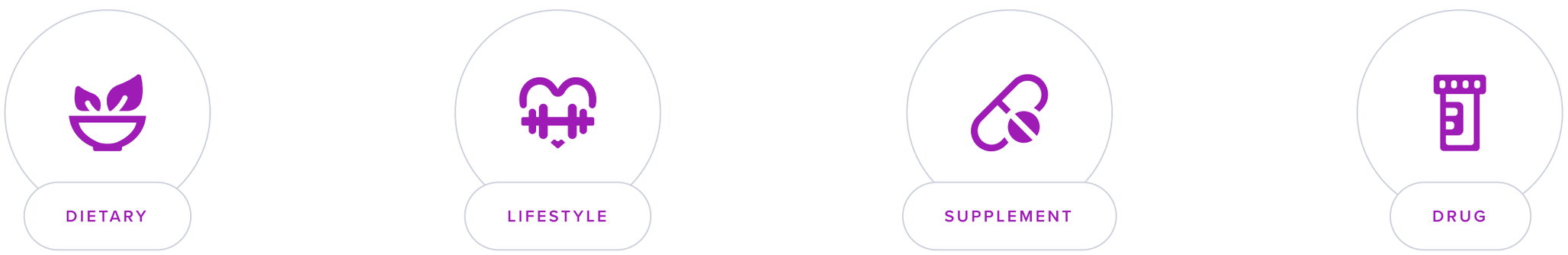
Genotype color info: AA You don't have any risk alleles | AA You have 1 risk allele | AA You have 2 risk alleles

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

People think of cholesterol as being bad, but it's actually essential. Cholesterol gives shape to all of your cells. Your body also uses it to make vitamin D and some types of hormones [R].

Cholesterol in the blood is carried by proteins, mainly LDL, HDL, and VLDL. We call cholesterol carried by HDL "good" cholesterol because it helps your liver get rid of excess cholesterol. On the other hand, LDL and VLDL cholesterol are "bad" because they can stick to your blood vessels. This can cause heart problems [R, R].

Low HDL Cholesterol

Cholesterol in the blood is carried by proteins, mainly LDL, HDL, and VLDL. We call cholesterol carried by HDL "good" cholesterol because it helps your liver get rid of excess cholesterol [R, R].

Normal to high levels of HDL cholesterol are linked to a lower risk of heart disease. Causes of low HDL cholesterol include [R, R, R]

- Being overweight or obese
- Smoking
- Metabolic syndrome
- A diet rich in trans fats
- Low physical activity

However, research has shown that medications that increase HDL cholesterol don't necessarily decrease one's risk of heart disease. In addition, genetic studies suggest that low HDL cholesterol levels probably don't cause heart disease on their own [R, R, R, R, R, R, R, R].

This is why doctors will often suggest lifestyle and diet strategies that can improve both your "good" and your "bad" cholesterol, as well as your heart health. These strategies include [R, R]:

- A healthy diet rich in fiber, and low in saturated fat and trans fat
- Exercise
- Losing weight
- Stopping tobacco use

Up to 65% of differences in cholesterol levels may be attributed to genetics. Genes that may affect HDL cholesterol influence [R, R, R, R, R, R]:

- Cholesterol production (*LPL*, *LIPC*, *HMGCR*)
- Cholesterol transport (*APOB*)
- HDL and LDL cholesterol balance (*CETP*)

Genetically high fasting insulin and total, bioavailable, and free testosterone may be causally associated with low HDL cholesterol [R, R, R].

TYPICAL LEVELS

Predisposed to typical HDL levels based on 916,929 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
APOB	rs2678379	GG
/	rs200748895	TT
SCARB1	rs921919	AA
/	rs71926466	GG
WDR11	rs10886863	CC
PLTP	rs6073958	TC
ABCA8	rs112001035	GA
IRS1	rs2138161	TC
GPAM	rs2792751	CT
UBE2L3	rs12158299	TC
VEGFA	rs998584	CA
ETV5	rs57912727	CA
CD300LG	rs72836561	CC
LPL	rs328	CC
ADAM10	rs2070895	GG
MCUB	rs189866430	TT
HNF4A	rs1800961	CC
ACAD10	rs11066015	GG
ADAL	rs150844304	AA
ARID1A	rs193084249	AA
SLC39A8	rs13107325	CC
APOE	rs429358	TT
ABCA1	rs2740488	AA
CYP27A1	rs17572799	AA
BTNL8	rs188238483	TT
ALPK2	rs41292412	CC
FLT3	rs76428106	TT
FADS1	rs174567	AA
PLG	rs571848809	GG
TCF15	rs151235402	CC
ZNF653	rs737338	CC
/	rs56271783	GG

GENE	SNP	GENOTYPE
RSPO3	rs72959041	GG
NELFCD	rs76602912	TT
PABPC4	rs17513135	CC
PPARG	rs12485478	AA
TSC22D2	rs9844972	GG
CNIH4	rs56105022	GG
KANSL1	rs117499775	TT
DGAT2	rs1219550	TT
ST3GAL4	rs112771035	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	Niacin Supplements	20 mg
2	Green Tea Extract	250 mg
3	Exercise At Least One Hour a Day	1 hour
4	Low-Carbohydrate Diet	
5	Aerobic Exercise (Cardio)	1 hour
6	Yoga	30 minutes
7	Pycnogenol	100 mg
8	Berberine	500 mg
9	Cumin	500 mg
10	Spirulina	500 mg
11	Green Coffee Extract	400 mg
12	Goji Berries	
13	Sea Buckthorn	
14	Cranberry	
15	Amla	
16	Mediterranean Diet	
17	Xylo-oligosaccharides	2 g
18	Lycopene	10 mg
19	Ginger	500 mg
20	Keto Diet	
21	Cinnamon	500 mg
22	Red Clover	40 mg
23	Blueberries	
24	Fasting Mimicking Diet	
25	Lutein And Zeaxanthin	
26	Salmon	
27	Cocoa	
28	Thiamine Supplements	100 mg
29	Myo-inositol	4 g
30	Magnesium Chloride	200 mg
31	Yerba Mate	1 g
32	Apple Polyphenols	500 mg

33	Benfotiamine	300 mg	34	Bergamot	
35	Tyrosol	10 mg	36	Magnesium	250 mg
37	Hydroxytyrosol And Punicalagin		38	Inositol	2 g
39	Apples		40	Astaxanthin	12 mg
41	Black Seed (Black Cumin)	1000 mg	42	Vitamin D and Calcium	
43	Honey		44	Tocotrienols	100 mg
45	Barberry	500 mg	46	Cashews	
47	Extra Virgin Olive Oil (EVOO) With Thyme		48	L-Carnitine	500 mg
49	Saffron	20 mg	50	Red Yeast Rice	500 mg
51	Calcium Supplements	1000 mg	52	White Kwao Krua (Pueraria Mirifica)	10 mg
53	Hazelnuts		54	Bladderwrack	300 mg
55	Restorative Yoga	30 minutes	56	Capsaicin	
57	Hesperidin	500 mg	58	Bifidobacterium Lactis Bi-07	10 billion CFU
59	Avoid Exposure to Heavy Metals		60	Broccoli Sprouts	2 tbsp
61	MCT Oil		62	Methylsulfonylmethane (MSM)	1 g
63	Pumpkin Seed Oil		64	Rutin	
65	Stair Climbing	10 minutes	66	Theaflavins	
67	Brewer's Yeast		68	Genistein	30 mg
69	Oregano Oil	1 drop	70	Rooibos	3 g
71	Bananas		72	Pilates	30 minutes

73	Shilajit	500 mg	74	Sage Extract	300 mg
75	Nattokinase and Red Yeast Rice		76	Garlic	
77	Guava		78	Avoid Selenium Supplements	
79	Probiotics	30 billion CFU	80	Tennis	
81	Bacillus Clausii		82	Mangiferin	150 mg
83	Lutein		84	Perilla Oil	600 mg
85	Coriander		86	Macadamia Nuts	
87	Black Garlic		88	Avoid Cadmium Exposure	
89	Ecklonia Cava	100 mg	90	Artemisia Extract	200 mg
91	Air Purifier		92	Kiwifruit	
93	Hemp Seeds		94	Avoid Perchlorate	
95	Bilberry		96	Chinese Rhubarb	500 mg
97	Vinyasa Yoga	1 hour	98	Lactobacillus Casei	10 billion CFU
99	Reduce Molybdenum Exposure		100	Lecithin	7 g
101	Omega-3 (Fish Oil)	2000 mg	102	Bee Pollen and Royal Jelly	
103	Evening Primrose Oil		104	Almonds	
105	Punicalagin	300 mg	106	Extra Virgin Olive Oil (EVOO)	
107	Nattokinase		108	Paleo Diet	
109	Chia Seeds		110	Coenzyme Q10 (CoQ10)	100 mg
111	Regular Sleep Schedule		112	Aquatic Exercise	1 hour

113	Dietary Folate		114	Walking	30 minutes
115	Low-Intensity Exercise	1 hour	116	Maintain Optimal Vitamin D Levels	1000 iu
117	Strength Training	1 hour	118	Tai Chi	1 hour
119	Coconut Oil		120	Morning Sunlight Exposure	30 minutes
121	Avoid Rapid Weight Changes		122	Hibiscus	250 mg
123	Zumba	1 hour	124	Tomato	
125	Gamma-Linolenic Acid (GLA)	200 mg	126	Krill Oil	1 g
127	Avocado		128	Practice Exercise Snacks	1 minutesute
129	Hydroxytyrosol	5 mg	130	Fenugreek	500 mg
131	Sleep for 7+ Hours		132	Pistachios	
133	Thyme		134	Psyllium	5 g
135	Swimming	30 minutes	136	American Ginseng	200 mg
137	Basketball	30 minutes			

1

Niacin Supplements

IMPACT 5 / 5

EVIDENCE 5 / 5

How to implement

Take a 20 mg niacin supplement daily, preferably with a meal to aid in absorption and minimize potential stomach upset.

TYPICAL STARTING DOSE

20 mg

Description

Niacin is an essential B vitamin that plays a vital role in metabolism, supporting heart health, maintaining healthy cholesterol levels, and promoting overall cellular function when included in a balanced diet or as a supplement.

Niacin (vitamin B3) is found in many foods. It supports your nervous system, skin, gut, and more [R].

Adults should get **16 mg** of niacin a day, and most people get enough from their diets [R].

Experts recommend getting niacin from food rather than supplements [R, R].

How it helps

Niacin can increase HDL cholesterol. Studied forms include [R, R, R, R, R, R, R, R, R, R, R, R, R, R, R, R, R]:

- **Niacin:** 500-3,000 mg/day for 2-5 months
- **Extended-release niacin:** 500-3,000 mg/day for 2-5 months

Side effects may be more common with doses above 1,000-2,000 mg/day [R, R, R].

Niacin may help by reducing HDL clearance from the body [R, R].

Although niacin increases HDL cholesterol, this doesn't seem to benefit heart health. Niacin provides no additional benefits when added to statins [R, R, R, R].

Please note: *Niacin has been linked to liver damage and strokes. It may also cause flushing, bruises, and bleeding. Most doctors do not recommend taking niacin unless a person can't take statins and has close medical supervision. Talk to your doctor before taking niacin* [R, R, R, R, R].

PERSONALIZED TO YOUR GENES

Niacin may raise HDL cholesterol more in people with your *LIPC* gene variant [R].

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
ADAM10	**rs1800588**	CC	

2

Green Tea Extract

IMPACT 4 / 5

EVIDENCE 5 / 5

How to implement

Take a green tea extract supplement containing 250-500 mg of EGCG (the active compound in green tea) daily, preferably with a meal to enhance absorption. This dosage is typically split into two separate doses, taken in the morning and later in the day. Continue this regimen for at least three months to observe potential health benefits.

TYPICAL STARTING DOSE

250 mg

Description

Green tea extract is a concentrated form of the beneficial compounds found in green tea, such as catechins. It is used in dietary supplements for its potential to enhance metabolism, aid in weight management, and provide antioxidant protection.

Green tea is made from the same plant as black tea (*Camellia sinensis*). However, the leaves and buds are processed differently [R].

Green tea contains **catechins**. These are antioxidants that help prevent oxidative stress [R].

EGCG is the main catechin found in green tea. It may help reduce inflammation and support weight loss [R].

How it helps

A meta-analysis of 10 studies concluded that tea intake protects against metabolic syndrome by lowering DBP, SBP (only black tea), diabetes incidence (only green tea), and LDL (only green tea). Similarly, tea extract reduces BMI and blood glucose while increasing HDL in obese people, thus helping prevent metabolic syndrome, according to a meta-analysis of 16 trials and 1090 participants [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].

3

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

Exercise is an easy and effective way to raise HDL cholesterol. Experts recommend getting 30 minutes of exercise 5 times a week for optimal results [R, R].

Cardio, strength training, and aquatic exercise may all help raise HDL cholesterol [R, R, R, R].

Not all studies found this benefit [R, R, R].

PERSONALIZED TO YOUR GENES

Exercise may raise HDL cholesterol more in people with your *ACADS* gene variant [R].
Your *LIPG* gene variant is linked to lower HDL cholesterol. Exercise may help more in people with this variant [R, R].
Your *LIPC* gene variant is linked to lower HDL cholesterol. People with this variant may benefit more from exercise [R, R].

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
ACADS	**rs2014355**	CC	
LIPG	**rs2000813**	CC	
ADAM10	**rs1800588**	CC	

4

Low-Carbohydrate Diet

IMPACT 4 / 5

EVIDENCE 3 / 5

How to implement

Limit your daily intake of carbohydrates to less than 26% of your total daily calories. For a standard 2000-calorie diet, this means consuming no more than 130 grams of carbohydrates per day. Focus on including non-starchy vegetables, lean proteins, and healthy fats in your meals while minimizing the intake of sugars, bread, pasta, and other high-carb foods.

Description

Low-carbohydrate diets can promote weight loss, improve blood sugar control, and support heart health. They may also be beneficial for individuals with certain medical conditions, such as epilepsy or metabolic syndrome.

How it helps

A meta-analysis of 12 studies associated low-carb diets with higher HDL-c (by 0.1 mmol/L) [R].

Compared to low-fat diets, low-carb diets are associated with greater increases in HDL-c (by 3.3 mg/dL or 0.05-0.82 mmol/L) but lower reductions in TC (by 2.7 mg/dL or 0.10-0.63 mmol/L) and LDL-c (by 3.7 mg/dL or 0.07-0.59 mmol/L) according to 4 meta-analyses (the largest one with 38 studies [R, R, R, R].

In overweight and obese participants, eating low-carb diets for 12 months increases HDL-c (by 0.13 mmol/L) better than a low-fat diet, especially in those eating less than 50 g/day carbohydrates, according to a meta-analysis of 8 trials and 2448 participants [R].

A low-carbohydrate may help by reducing triglycerides in the bloodstream, which promotes the efficient transport of cholesterol to the liver for excretion.

PERSONALIZED TO YOUR GENES

Eating a low-carbohydrate, low-calorie diet may lower total cholesterol more in people with your *ADIPOQ* gene variant [R].

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
ST6GAL1	**rs1501299**	GG	

5

Aerobic Exercise (Cardio)

IMPACT 3 / 5

EVIDENCE 4 / 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

Exercise is an easy and effective way to raise HDL cholesterol. Experts recommend getting 30 minutes of exercise 5 times a week for optimal results [R, R].

Cardio, strength training, and aquatic exercise may all help raise HDL cholesterol [R, R, R, R].

However, not all studies found this benefit [R, R, R].

6

Yoga

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Practice yoga for at least 20 to 30 minutes a day, most days of the week. Choose a style that matches your fitness level and goals, and consider attending a class or using online resources to guide your practice.

TYPICAL STARTING DOSE

30 minutes

Description

Yoga is a mind-body practice that combines physical postures, breathing exercises, and meditation. It enhances flexibility, strength, and mental well-being and is used for stress reduction, relaxation, and overall health improvement.

Yoga combines breathing, stretching, and relaxation techniques. Practicing yoga may help [R, R, R]:

- Reduce stress
- Improve fitness
- Lower blood pressure and heart rate
- Manage pain

How it helps

Various studies indicate that a yoga-based lifestyle intervention can increase HDL cholesterol (by ~3 mg/dL) even over short periods. One study reported significant improvements in HDL levels after just a ten-day intervention, highlighting its potential for cardiovascular health benefits [R, R, R].

7

Pycnogenol

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Take 100 mg of pycnogenol supplement daily. This can be taken in a single dose or divided into two doses of 50 mg each, one in the morning and one in the evening.

TYPICAL STARTING DOSE

100 mg

Description

Pycnogenol (pine bark extract) is derived from the bark of the maritime pine (Pinus pinaster). It has been used in traditional n European folk medicine for centuries, and more recently as a supplement. The extract contains a group of bioactive compounds known as proanthocyanidins, which may be beneficial in supporting cardiovascular health, promoting skin health, and aiding in the management of various conditions related to inflammation and oxidative stress.

Pycnogenol comes from the bark of pine trees that grow in the Mediterranean [R, R].
It may improve [R, R, R, R, R, R]:

- Athletic performance
- Seasonal allergies
- Cognitive function
- Joint health
- Varicose veins

How it helps

Pycnogenol is known to enhance the production of nitric oxide (NO) in your body, which improves blood flow and overall circulation. This action assists in reducing LDL cholesterol (bad cholesterol) levels and increasing HDL cholesterol (good cholesterol), therefore, potentially improving your health.

A meta-analysis of 24 trials and 1594 participants concluded that supplementation with pycnogenol (150-200 mg/day for 8-24 weeks) **reduces LDL-C (by 7.12 mg/dL) while increasing HDL-C (by 3.27 mg/dL)** [R].

In a placebo-controlled trial of 25 healthy subjects, supplementation with pycnogenol (150 mg/day) for 6 weeks **reduced LDL-C and increased HDL-C in 66% of the subjects** [R].

In a placebo-controlled trial of 46 patients with type 2 diabetes, French maritime pine bark extract (50 mg/day for 8 weeks) **reduced total cholesterol** [R].

8

Berberine

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Take 500 mg of berberine two times a day before meals. Continue this regimen for up to three months, then evaluate its effects with your healthcare provider.

TYPICAL STARTING DOSE

500 mg

Description

Berberine is a compound found in certain plants, known for its potential to support blood sugar control and heart health.

Berberine is an active compound of some plants used in traditional medicine, such as [R]:

- European barberry
- Oregon grape
- Goldenseal
- Chinese goldthread
- Tree turmeric

Berberine is also available as a supplement. People use it to help with [R, R, R]:

- Diabetes
- High cholesterol
- High blood pressure
- PCOS

How it helps

Berberine (1,000-1,500 mg/day for 4-24 weeks) may increase HDL cholesterol [R, R, R, R].

Berberine may also help when combined with other supplements, such as milk thistle. Milk thistle may help the body absorb berberine [R].

However, not all studies found a significant benefit for HDL cholesterol [R, R]. In fact, berberine has mainly been studied for lowering "bad" (LDL) cholesterol [R, R, R, R].

At this point, we don't know the exact mechanism of how berberine affects HDL cholesterol levels.

Please note: *Using supplements to target HDL in isolation is not recommended. You should target your overall cholesterol levels instead. Talk to your doctor to see if berberine could improve your overall cholesterol levels.*

9

Cumin

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

To implement this supplement recommendation, take 500 mg of cumin in capsule form daily, preferably with a meal to enhance absorption. It's often recommended to continue this regimen for at least 8 weeks to observe potential health benefits.

TYPICAL STARTING DOSE

500 mg

Description

Cumin is a spice used in cooking and traditional medicine. It contains compounds that may have antioxidant and anti-inflammatory effects.

Cumin (*Cuminum cyminum L.*) is a flowering herb cultivated in the Middle East, India, China, and the Mediterranean area [R].

Cumin seeds are used as a spice and, in traditional medicine, for [R, R, R]:

- Diarrhea
- Stomachache
- High cholesterol
- Diabetes

How it helps

Two meta-analyses (the largest one with 8 trials) concluded that supplementation with cumin (25-100 mg/day for 8-12 weeks) increases HDL cholesterol (by 3.35 mg/dL) [R, R].

Cumin contains phytosterols that prevent cholesterol absorption in the body. Also, it's rich in antioxidants that reduce inflammation and oxidative stress linked to high cholesterol.

10

Spirulina

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Take 1-8 g of spirulina supplements daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

500 mg

Description

Spirulina is a blue-green algae. It is rich in nutrients like protein, vitamins, and minerals, particularly vitamin B12 and iron, and is a source of antioxidants, chlorophyll, and phycocyanin. It can be found in powdered or tablet form as a supplement, and is often used to boost energy, support the immune system, and enhance overall nutrition. Additionally, spirulina.

Spirulina is a supplement made from blue-green algae that grows in fresh and marine water [R, R].

Dried spirulina is up to 70% protein. It's also rich in vitamins, antioxidants, and healthy fats. This makes it a great source of nutrition for both people and livestock [R, R, R].

People use spirulina supplements to reduce [R, R]:

- Cholesterol
- Blood pressure
- Blood sugar

How it helps

Spirulina (1-10 g/day for 8-16 weeks) may increase HDL cholesterol levels [R, R, R].

However, some studies didn't find this benefit [R, R].

Spirulina may help by increasing HDL-raising gut bacteria [R].

Please note: *Using supplements to target HDL in isolation is not recommended. You should target your overall cholesterol levels instead. Talk to your doctor to see if spirulina could improve your overall cholesterol levels. Use caution when buying spirulina supplements. Buy these products only from trusted providers. Some spirulina products may contain toxic contaminants* [R].

11

Green Coffee Extract

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Take a 400 mg dose of green coffee extract supplement daily. This can be consumed in the morning or as directed on the supplement's packaging.

TYPICAL STARTING DOSE

400 mg

Description

Green coffee extract is believed to support weight management due to its high content of chlorogenic acids, which may help regulate blood sugar levels and promote fat metabolism.

Green coffee is made from unroasted coffee beans. It's rich in an anti-inflammatory and antioxidant compound called chlorogenic acid [R, R].

Green coffee may help lower [R]:

- Blood pressure
- Weight
- Blood sugar levels

How it helps

Three meta-analyses (the largest one with 17 studies) concluded that green coffee bean extract increases HDL cholesterol by 2.63 mg/dL [R, R, R].

Green coffee extract contains chlorogenic acid, which can help reduce the absorption of and utilization of cholesterol in your liver. Chlorogenic acid may also reduce the absorption of carbohydrates, indirectly helping in managing high cholesterol levels.

Please note: *Green coffee bean extract contains caffeine. Keep this in mind if you're trying to limit your caffeine intake. If you're pregnant, limit caffeine to 200 mg per day* [R].

Please note: *chlorogenic acid from green coffee beans 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 coffee bean extract and always consult with a healthcare provider before taking this supplement* [R].

Please note: *polyphenols and tannins from coffee 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 coffee or coffee supplements.*

12

Goji Berries

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Incorporate goji berries into your daily diet by adding a handful (about 1 ounce or 28 grams) to your morning cereal, yogurt, or smoothie. You can also snack on dried goji berries throughout the day. Aim to include them in your diet consistently for at least a month to observe potential health benefits.

Description

Goji berries are a nutritious fruit known for their high antioxidant content. They may support immune health, provide essential nutrients, and be incorporated into a healthy diet as a snack or ingredient.

How it helps

Goji berries are rich in antioxidants which can increase your HDL (good) cholesterol levels. Also, these berries contain fiber which helps slow the absorption of cholesterol and fat from food, aiding in maintaining healthier cholesterol levels.

A meta-analysis of 7 trials concluded that the daily consumption of goji berry polysaccharide lowers triglyceride, fasting glucose, and LDL cholesterol while increasing HDL cholesterol. Another meta-analysis (7 trials and 548 participants) concluded that goji berries lower fasting glucose (by 0.36 mmol/L) and marginally reduce the concentrations of total cholesterol (by 0.30 mmol/L) and triglycerides (by 0.20 mmol/L). The most recent meta-analysis (10 studies) found that consuming goji berries (especially if eaten whole) lowers triglycerides (by 0.14 mmol/L) and increases HDL cholesterol (by 0.06 mmol/L) [R, R, R].

13

Sea Buckthorn

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Take 500mg of sea buckthorn oil capsules twice daily with meals for at least 3 months to see beneficial effects on skin hydration and elasticity.

Description

Sea buckthorn is a deciduous shrub native to Europe and Asia, and its fruits are rich in vitamins, particularly vitamin C, and antioxidants. It is used for its potential health benefits, including immune support and skin health.

How it helps

A meta-analysis of 15 studies concluded that supplementation with sea buckthorn increases HDL-C in people with abnormal lipid metabolism [R].

Sea buckthorn is full of omega-7 fatty acids, which can promote healthier cholesterol levels by increasing HDL and reducing LDL.

14

Cranberry

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Consume one to two 8-ounce servings of unsweetened cranberry juice daily, or take 500 mg of cranberry supplements twice daily. Continue this practice consistently for at least several weeks to potentially observe benefits.

Description

Cranberries are known for their high antioxidant content and potential to promote urinary tract health by preventing bacterial adhesion. Consuming cranberries or cranberry products may help reduce the risk of urinary tract infections and provide antioxidant benefits.

Cranberries are fruits rich in vitamins, minerals, and antioxidants. They are available in different forms, including [R]:

- Dried fruits
- Juice
- Powder
- Pills

How it helps

Two meta-analyses concluded that cranberry consumption increases HDL, especially in participants younger than 50 years old or when consumed for 4-6 weeks [R, R].

Cranberries are packed with antioxidants, which can raise HDL cholesterol levels.

15

Amla

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Incorporate 1-2 teaspoons (approximately 4-8 grams) of amla powder into your daily diet. You can mix it into a glass of water, blend it into a smoothie, or sprinkle it over salads or cooked meals. Do this consistently every day for best results.

Description

Amla, also known as Indian gooseberry, is a fruit known for its high vitamin C content and antioxidant properties. It is used in traditional Ayurvedic medicine for various health benefits, including immune support and skin health.

How it helps

Amla, or Indian gooseberry, has been shown to improve HDL ("good") cholesterol levels. It works by boosting antioxidant activity, reducing inflammation, and enhancing the function of HDL cholesterol.

Two meta-analyses (the largest one with 9 trials) concluded that supplementation with amla (500-1500 mg/day for 14-84 days) **lowers increases HDL-C** [R, R].

16

Mediterranean Diet

IMPACT 3 / 5

EVIDENCE 3 / 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

Experts recommend a healthy diet to help improve cholesterol levels and heart health. The Mediterranean diet is one good option [R, R].

The Mediterranean diet contains healthy fats and fiber-rich foods that may help improve HDL cholesterol. Although smaller studies had mixed results, a very large review suggests that this diet may increase HDL cholesterol. However, the effects are modest [R, R, R, R].

This diet gets extra points for also lowering "bad" cholesterol (LDL) and greatly decreasing the risk of heart disease [R, R, R, R, R, R, R, R].

The Mediterranean diet may help even more when combined with exercise [R].

PERSONALIZED TO YOUR GENES

The Mediterranean diet may raise HDL cholesterol more in people with your *ADIPOQ* gene variant [R].
The Mediterranean diet may raise HDL cholesterol more in people with your *CETP* gene variant [R].

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
RFC4	**rs822393**	CC	

GENE	SNP	GENOTYPE	EVIDENCE
NLRC5	**rs3764261**	AA	

17

Xylo-oligosaccharides

IMPACT 3 / 5

EVIDENCE 2 / 5

How to implement

Take xylo-oligosaccharides (XOS) as a dietary supplement in doses typically ranging from 1.4 to 2.8 grams per day. This can be consumed either in a single dose or divided into two doses throughout the day. It is usually found in powder form that can be mixed into water, juice, or added to food. Continue daily for at least 4 to 8 weeks to observe potential benefits.

TYPICAL STARTING DOSE

2 g

Description

Xylo-oligosaccharides are a type of prebiotic fiber found in fruits and vegetables. They serve as food for beneficial gut bacteria, promoting gut health and aiding in digestive regularity.

How it helps

Xylo-oligosaccharides act as a prebiotic, encouraging good gut bacteria to grow, which may help your body manage cholesterol levels better. So, taking this supplement could boost your HDL "good" cholesterol, which helps remove harmful cholesterol from your body.

In a 21-day study, Xylo-oligosaccharide (XOS) supplementation increased bowel movements and participant-reported vitality and happiness in healthy adults. It also boosted bifidobacterial counts and HDL levels [R].

18

Lycopene

IMPACT 3 / 5

EVIDENCE 2 / 5

How to implement

Take a lycopene supplement of 10 to 30 mg per day. It can be consumed with a fat-containing meal to enhance absorption. This supplementation can be ongoing daily to support overall health benefits such as heart health and antioxidant protection.

TYPICAL STARTING DOSE

10 mg

Description

Lycopene is a powerful antioxidant found in tomatoes and other red or pink fruits and vegetables. Consuming lycopene-rich foods may help reduce the risk of chronic diseases and support heart and prostate health.

Lycopene is a bright red substance that gives color to a number of fruits such as [R, R]:

- Tomato
- Watermelon
- Papaya
- Apricot

Lycopene has antioxidant properties. It may help support [R, R, R]:

- Heart health
- Prostate health
- Cognition

How it helps

Lycopene, found in tomatoes and other red fruits, can help raise HDL ("good") cholesterol levels, improving overall heart health. It acts as a powerful antioxidant, protects blood vessels, and prevents cholesterol from forming fatty deposits, reducing the risk of heart disease.

Twelve studies (13 trial arms) explored lycopene's impact on serum lipids, while four studies assessed its effect on blood pressure. A meta-analysis found that lycopene, at dosages ≥25mg, significantly reduced total serum cholesterol (-7.55±6.15mg/dl, p=0.02) and low-density lipoprotein (LDL) cholesterol (-10.35±5.64mg/dl, p=0.0003) [R].

In a meta-analysis of 12 trial arms (n = 781), lycopene supplementation significantly raised HDL-c levels (SMD = 0.33 [95% CI: 0.12, 0.54], p = 0.002) with moderate heterogeneity (I2 = 45%). However, in a separate meta-analysis of 11 studies (n = 854), lycopene did not significantly affect TG levels [R].

19

Ginger

IMPACT 2 / 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 has antioxidant properties that can help enhance the efficiency of cholesterol metabolism. As a result, it can help increase HDL (good) cholesterol levels which are beneficial for heart health.

A meta-analysis of 9 studies concluded that supplementation with ginger **increases HDL by 1.16 mg/dL** [R].

A meta-analysis of 26 trials found that supplementation with ginger **lowers LDL and increases HDL. Both doses below and above 1500 mg/day and durations above or below 8 weeks were equally effective** [R].

In overweight and obese participants, ginger raises HDL but has no effect on total and LDL cholesterol according to a meta-analysis of 14 trials and 473 participants [R].

Conversely, a meta-analysis found ginger **only lowers total cholesterol but has no effect on LDL or HDL** [R].

A meta-analysis of 3 trials concluded that supplementation with ginger **improves liver levels of cholesterol (by 5.60 mg/g) and serum levels of LDL (by 3.94 mg/dL), total cholesterol (by 3.45 mg/dL), and HDL (by 1.27 mg/dL) in patients with NAFLD** [R].

20

Keto Diet

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Adopt a diet that consists of about 70-80% fat, 10-20% protein, and 5-10% carbohydrates. Eliminate or significantly reduce the intake of sugar and starches like bread, pasta, rice, and potatoes, focusing instead on high-fat foods like meats, fatty fish, eggs, butter, and healthy oils, as well as low-carb vegetables like leafy greens. This dietary pattern should be maintained consistently for a period of at least 3-4 weeks to achieve ketosis, after which it can be adjusted based on individual goals and responses.

Description

The keto diet is a high-fat, low-carbohydrate eating plan designed to induce a state of ketosis in the body, where it primarily burns fat for energy. It is often used for weight loss and managing certain medical conditions.

The ketogenic diet, or the ‘keto’ diet, is rich in fat and restricts carb intake [R, R].

On the ketogenic diet, 50 g of carbs or less are consumed per day. Around 55-80% of the calories come from fat [R].

The ketogenic diet depletes the body of sugars like glucose. When people fast or eat very little carbs, the body makes less insulin. In response, the body starts using fat for energy.

When the body only uses fat for energy, molecules called ketones are formed. This state is called *ketosis*.

The ketogenic diet may help with:

- Seizures [R]
- Excess weight [R]
- Diabetes [R, R]

How it helps

A meta-analysis of 13 studies concluded that eating a very low-cabohydrate ketogenic diet increases HDL cholesterol (by 0.09 mmol/L). According to 3 meta-analyses (the largest one with 14 studies), ketogenic diets increase HDL cholesterol by 0.04-0.14 mmol/L in people with type 2 diabetes. Interestingly, a meta-analysis of 14 studies found that ketogenic diets only raise HDL cholesterol in obese participants if they have type 2 diabetes. However, a meta-analysis of 12 studies found no effects of very low-carbohydrate ketogenic on HDL cholesterol levels [R, R, R, R, R, R].

21

Cinnamon

IMPACT 2 / 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

500 mg

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 may increase levels of HDL cholesterol, often known as the 'good' cholesterol. This can help to remove LDL ('bad') cholesterol from the body, improving overall cholesterol balance.

Multiple studies indicate that cinnamon reduces total cholesterol, triglycerides, LDL cholesterol, and may increase HDL cholesterol, especially in higher doses. However, effectiveness varies by region, with less impact noted in European and American populations.

Cinnamon has shown potential in lowering triglycerides, total cholesterol, and LDL cholesterol in people with type 2 diabetes. However, its effect on HDL cholesterol and A1C levels is inconsistent, with some studies showing no significant changes.

In women with PCOS, cinnamon appears to lower fasting blood sugar, insulin levels, and improve lipid profiles but does not significantly affect body weight or BMI.

References: [R, R, R, R, R]

22

Red Clover

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Take a red clover supplement in the form of capsules, typically ranging from 40 to 80 milligrams daily. This should be done under the guidance of a healthcare provider, especially if you're using it for menopausal symptoms or bone health, to ensure it's appropriate for your individual needs. Generally, it's used for periods ranging from 3 to 12 months.

TYPICAL STARTING DOSE

40 mg

Description

Red Clover is a plant that's often utilized for its health benefits. Not just pleasing to the eyes with its bright color, it's known to help with skin health and menopause symptoms. Additionally, it may improve heart health and bone density. It's like a power-plant, offering multiple health benefits in one package.

How it helps

Three meta-analyses (the largest one with 12 trials and 1284 women) concluded that supplementation with red clover for 1-18 months increases HDL-cholesterol by 1.60-5.41 mg/dL in perimenopausal and postmenopausal women [R, R, R].

Red clover contains isoflavones that act like estrogen in the body, which may help reduce LDL cholesterol levels while increasing HDL cholesterol.

23

Blueberries

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Incorporate a half to one cup of fresh or frozen blueberries into your daily diet. You can add them to your breakfast cereal, smoothies, or enjoy them as a snack on their own.

Description

Blueberries are a nutritious fruit packed with antioxidants, vitamins, and fiber. They are known for their potential to support brain health, reduce the risk of chronic diseases, and promote overall well-being.

Blueberries are enjoyed all around the world for their sweet taste and nutritional benefits. They may support [R]:

- Heart health
- Cognitive function
- Normal blood sugar levels

How it helps

A meta-analysis of 21 studies concluded that blueberries improve systolic and diastolic blood pressure, triglycerides, total cholesterol, LDL cholesterol, HDL cholesterol, and insulin levels. Another meta-analysis (12 trials) found that blueberry interventions decreased total and LDL cholesterol, as well as diastolic blood pressure. However, a meta-analysis of 11 studies found that blueberries improved triglycerides but no other cardiovascular risk factors [R, R, R].

24

Fasting Mimicking Diet

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Adopt a fasting mimicking diet for 5 consecutive days per month, consuming between 750 and 1,100 calories per day consisting mostly of plant-based soups, vegetables, nuts, seeds, and herbal teas. Ensure adequate hydration. Resume a normal, healthy diet for the remaining days of the month.

Description

The fasting mimicking diet is a dietary approach that involves cycles of fasting and calorie restriction to potentially promote longevity and metabolic health. It is currently an area of research interest for its possible health benefits.

How it helps

In a non-placebo-controlled trial of 100 generally healthy subjects, eating a fast-mimicking diet for 5 consecutive days during 3 months reduced blood pressure and IGF-1. These parameters were more beneficially affected in subjects at risk of disease. In a non-placebo-controlled trial of 100 patients with type 2 diabetes, following a fasting-mimicking diet for 4 months lowered total cholesterol, LDL cholesterol, triglycerides, and blood pressure, while raising HDL cholesterol [R, R].

25

Lutein And Zeaxanthin

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take a supplement containing 10mg of lutein and 2mg of zeaxanthin daily, preferably with a meal that contains fat for better absorption.

Description

Lutein and zeaxanthin are carotenoids found in green leafy vegetables and certain supplements. They are known for their role in promoting eye health and reducing the risk of age-related macular degeneration and cataracts when consumed regularly as part of a balanced diet.

Lutein and zeaxanthin are two antioxidant pigments found in the eye [R, R].

Many plants contain lutein and zeaxanthin, including [R, R]:

- Leafy greens (kale, spinach, leeks, lettuce)
- Cantaloupe
- Corn
- Peas
- Peppers
- Herbs (basil, parsley)

Egg yolks are the main animal source of these carotenoids [R].

Lutein and zeaxanthin may help support eye health [R, R].

How it helps

While Lutein and zeaxanthin are primarily known for their benefits to eye health, some studies suggest they may also have a positive impact on HDL ("good") cholesterol levels.

The exact mechanism is not fully understood, but it's thought to be related to their antioxidant properties. These antioxidants may help protect HDL cholesterol from oxidation, which can prevent it from performing its function of removing harmful LDL ("bad") cholesterol from the bloodstream.

Electronic assessment of interventional studies via various databases until June 2021 found that L/Z supplementation has no significant impact on total cholesterol (TC) and LDL-C levels but can increase HDL-C levels in older adults [R].

26

Salmon

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Incorporate at least two servings of salmon into your weekly diet, aiming for each serving to be about 3.5 ounces (100 grams), cooked. Choose wild-caught salmon when possible for higher omega-3 content.

Description

Salmon is a nutrient-rich fish known for its high content of omega-3 fatty acids, which can support heart health and reduce inflammation. It's also an excellent source of protein, vitamin D, and various minerals.

How it helps

In a clinical trial involving overweight adults, regular consumption of farmed Atlantic salmon for four weeks resulted in reduced triglyceride levels and increased HDL cholesterol. It also lowered large VLDL and chylomicron particle counts while raising large LDL particles in a dose-dependent manner. Salmon intake reduced total triglycerides, VLDL, and chylomicron triglyceride content, and altered lipoprotein particles in a way associated with reduced cardiovascular disease risk. Another study with healthy subjects showed that salmon consumption increased omega-3 levels and decreased triacylglycerols and heart rate. Salmon protein intake lowered serum glucose and triglycerides and increased certain amino acid concentrations. In HIV-infected patients with dyslipidemia, salmon oil reduced triglycerides. However, a separate trial found that salmon consumption did not significantly alter various health markers in overweight/obese participants. [R, R, R, R, R].

27

Cocoa

IMPACT 2 / 5

EVIDENCE 2 / 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

Cocoa may increase HDL cholesterol when in the form of [R, R, R]:

- Dark chocolate
- Cocoa flavanol supplements

Around 150-500 mg cocoa flavanols/day for at least 3 weeks appear to be helpful [R, R, R].

However, some studies didn't find this benefit [R, R].

The antioxidants in cocoa may help by increasing HDL production [R].

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. People who consume less than 6 grams of cocoa fat per day may obtain greater benefits [R].

28

Thiamine Supplements

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take thiamine supplements orally, starting with a dose of 100 mg daily. This can be taken with or without food, but consistently at the same time each day for at least one month to help improve deficiency symptoms.

TYPICAL STARTING DOSE

100 mg

Description

Your doctor may recommend thiamine supplements. You can also discuss magnesium supplements with your doctor if your magnesium levels are low [R].

How it helps

Thiamine (Vitamin B1) doesn't directly increase HDL (high-density lipoprotein) cholesterol levels. However, as an essential nutrient for energy metabolism, it can contribute to overall metabolic health. Good metabolic function is linked to a healthier lipid profile, which might indirectly influence HDL levels. Direct effects of thiamine on HDL are not well-established.

In a review of six trials involving 364 participants, thiamine or benfotiamine supplementation at doses of 100-900 mg/day for up to 3 months did not show significant benefits on glycaemic outcomes (HbA1c, FBG, PPG). However, there was a significant increase in high-density lipoprotein (HDL) levels at the 3-month follow-up. [R]

29

Myo-inositol

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take 2 grams of myo-inositol supplement orally twice a day, preferably with meals to enhance absorption. This regimen should be followed daily for at least 6 months to observe significant benefits.

TYPICAL STARTING DOSE

4 g

Description

Myo-inositol is a naturally occurring compound that plays a role in various cellular functions. It is used in dietary supplements and is believed to have potential benefits for mental health, hormone regulation, and insulin sensitivity.

Inositol is a type of sugar that our bodies need to function. It was considered a vitamin (vitamin B8) until it was discovered that our bodies can make it from another common sugar, glucose [R].

Myo-inositol is the most common form of inositol. It plays a role in [R, R, R, R]:

- Heart health
- Normal blood sugar levels
- Mental health
- Cognitive function
- Reproductive health

Myo-inositol can convert to D-chiro-inositol in the body. These two forms of inositol are often combined in supplements. People use them to improve blood sugar control and PCOS [R, R, R].

How it helps

In a double-blinded RCT with 48 obese NAFLD patients, MI (4g/day) led to significant weight loss, lower systolic BP, reduced insulin levels, improved lipid profile, liver enzymes, and NAFLD severity compared to placebo after 8 weeks [R].

In a 12-month study with 80 postmenopausal women and metabolic syndrome, myo-inositol (2g b.i.d) showed significant improvements in glucose, insulin, HOMA-IR, triglycerides, HDL cholesterol, and blood pressure compared to placebo, while BMI and waist circumference remained unchanged [R].

In a study of 80 postmenopausal women with metabolic syndrome, myo-inositol (2g BID) alongside diet for 6 months significantly improved systolic and diastolic blood pressure, HOMA index, cholesterol, and triglycerides, while increasing HDL cholesterol (22%) compared to the diet and placebo groups [R].

30

Magnesium Chloride

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take 200-400 mg of magnesium chloride daily, ideally in divided doses with meals to reduce the risk of stomach upset. It can be taken indefinitely as part of a daily supplementation routine to support magnesium levels in the body.

TYPICAL STARTING DOSE

200 mg

Description

Magnesium chloride is a magnesium supplement that can be used to support magnesium levels in the body. It may help alleviate symptoms of magnesium deficiency, such as muscle cramps and fatigue.

How it helps

In a placebo-controlled trial of 198 participants with metabolic syndrome and low serum magnesium, supplementation with 5% magnesium chloride lowered systolic blood pressure (by 3.6 mmHg), diastolic blood pressure (by 5.5 mmHg), fasting glucose (by 12.4 mg/dL), triglycerides (by 61.2 mg/dL) while increasing HDL cholesterol (by 0.9 mg/dL) [R].

Similarly, supplementation with 2.5 g magnesium chloride per day for 4 months lowered systolic blood pressure (by 15.3 mmHg) and diastolic blood pressure (by 7.5 mmHg) while increasing HDL cholesterol (by 0.2 mmol/L) in a placebo-controlled trial of 82 diabetic, hypertensive patients [R].

However, sustained-release magnesium chloride (384 mg/day for 6 weeks) only lowered systolic blood pressure (by 7.4 mmHg) in a placebo-controlled trial of 28 diabetic patients [R].

31

Yerba Mate

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take yerba mate as a supplement by consuming 1 to 3 grams of the dried leaves in capsule form daily, or by drinking 1 to 3 cups of yerba mate tea. Do this consistently for at least 4 to 8 weeks to observe potential benefits.

TYPICAL STARTING DOSE

1 g

Description

Yerba mate is a South American herbal tea known for its caffeine content and antioxidant properties. It provides a boost in alertness and mental clarity and is used for its potential to enhance focus and energy.

Yerba mate is a traditional South American beverage made from the dried leaves of the yerba mate plant (*Ilex paraguariensis*). It is commonly consumed in countries like Argentina, Uruguay, Paraguay, and Brazil, and has a long history of cultural significance and social bonding.

Yerba mate is traditionally sipped through a *bombilla*, a special metal straw, from a gourd-shaped container. This results in a flavorful and stimulating drink often shared among friends and family.

How it helps

Drinking yerba mate increased HDL cholesterol levels in 142 overweight or obese participants with dyslipidemia. In another study of 102 participants, yerba mate consumption increased HDL cholesterol by 4.4% in normolipidemic subjects and by 5.4-6.5% in dyslipidemic subjects. Dry mate extract supplementation increased HDL cholesterol by 10% in a placebo-controlled trial of 34 men with metabolic syndrome [R, R, R].

Yerba mate contains antioxidants that can increase HDL cholesterol levels.

32

Apple Polyphenols

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take 500 mg of an apple polyphenol supplement daily, preferably with meals to enhance absorption. It is recommended to continue this supplementation for at least 4 weeks to start observing potential health benefits.

TYPICAL STARTING DOSE

500 mg

Description

Polyphenols are antioxidants found in many plants. High amounts are found in fruits like grapes, cherries, and apples. Apple polyphenols may help reduce hair loss and oxidative stress.

Polyphenols are antioxidants found in many plants. High amounts are found in fruits like grapes, cherries, and apples [R].

Apple polyphenols may help reduce hair loss and oxidative stress [R, R].

How it helps

Apple polyphenols are antioxidants that can effectively raise HDL ("good") cholesterol levels. This potentially reduces the risk of heart disease by removing harmful LDL cholesterol from your bloodstream.

A meta-analysis found that apple or apple polyphenol intake led to increased high-density lipoprotein levels (SMD = 0.34) and reduced C-reactive protein levels (SMD = -0.43) compared to controls [R].

In a randomized trial with 46 participants, those who consumed 3 Gala apples daily for 6 weeks as part of their diet showed potential for reducing obesity-related inflammation, indicated by lower CRP levels [R].

A 5x4 weeks dietary study with 23 healthy volunteers found that consuming whole apples, apple pomace, or apple juices had no significant impact on lipoproteins, blood pressure, weight, waist-to-hip ratio, inflammation, gut microbiota, or glucose metabolism [R].

Out of 22 eligible studies (7 randomized controlled trials, 1 nonrandomized trial, and 14 prospective observational studies), apple intake in RCTs lowered BMI but had no notable impact on body weight, serum lipids, blood glucose, or blood pressure [R].

33

Benfotiamine

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take 300-600 mg of benfotiamine per day, in divided doses with meals to improve absorption. This regimen should be followed daily, potentially long-term, especially for conditions like diabetic neuropathy or for general B1 vitamin supplementation.

TYPICAL STARTING DOSE

300 mg

Description

Benfotiamine is a special form of vitamin B1. It's highly beneficial for the body as it helps convert the food we eat into energy. It also contributes to the overall health of our nerve cells protecting us from nerve-related diseases.

How it helps

Benfotiamine doesn't directly impact HDL cholesterol. However, it can support overall cardiovascular health by mitigating the effects of high blood glucose, which can indirectly influence cholesterol levels.

In a review of six trials involving 364 participants, thiamine or benfotiamine supplementation at doses of 100-900 mg/day for up to 3 months did not show significant benefits on glycaemic outcomes (HbA1c, FBG, PPG). However, there was a significant increase in high-density lipoprotein (HDL) levels at the 3-month follow-up. [R]

34

Bergamot

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take 500-1000mg of bergamot extract supplements once daily, preferably in the morning with a meal for better absorption.

Description

Bergamot is a citrus fruit known for its aromatic peel, which is used to make essential oils and flavorings. It is sometimes used in aromatherapy and may have potential mood-enhancing effects when diffused or applied topically.

Bergamot (*Citrus bergamia*) is a bitter citrus fruit native to southern Italy. The fruit is inedible due to its sour taste. The peel is used to make essential oil, and the juice is used to make extracts. People use bergamot in food, supplements, and cosmetics [R].

How it helps

Bergamot extract (500-1,300 mg/day for 1-6 months) may increase HDL cholesterol [R, R, R, R, R, R, R, R].

However, not all studies found this benefit [R, R, R].

Bergamot may help by preventing HDL cholesterol breakdown [R, R].

Please note: *Using supplements to target HDL in isolation is not recommended. You should target your overall cholesterol levels instead. Talk to your doctor to see if bergamot could improve your overall cholesterol levels.*

35

Tyrosol

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take a tyrosol supplement of approximately 10 to 50 milligrams per day, ideally with a meal to enhance absorption. Continuous daily intake is recommended for at least 8 to 12 weeks to evaluate benefits.

TYPICAL STARTING DOSE

10 mg

Description

Tyrosol is a phenolic compound found in olive oil and is known for its antioxidant properties. It is used for its potential to protect cells from oxidative damage and support cardiovascular health.

How it helps

In a non-placebo-controlled trial of 33 individuals at cardiovascular risk, consuming white wine with tyrosine (25 mg) increased HDL-C. Similarly, consuming olive oil with high tyrosol content for 3 weeks increased HDL-cholesterol in 2 non-placebo-controlled trials of 230 healthy volunteers [R, R, R].

36

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

250 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

In a placebo-controlled trial of 198 participants with metabolic syndrome and low serum magnesium, supplementation with 5% magnesium chloride lowered systolic blood pressure (by 3.6 mmHg), diastolic blood pressure (by 5.5 mmHg), fasting glucose (by 12.4 mg/dL), triglycerides (by 61.2 mg/dL) while increasing HDL cholesterol (by 0.9 mg/dL) [R].

Similarly, supplementation with 2.5 g magnesium chloride per day for 4 months lowered systolic blood pressure (by 15.3 mmHg) and diastolic blood pressure (by 7.5 mmHg) while increasing HDL cholesterol (by 0.2 mmol/L) in a placebo-controlled trial of 82 diabetic, hypertensive patients [R].

However, sustained-release magnesium chloride (384 mg/day for 6 weeks) only lowered systolic blood pressure (by 7.4 mmHg) in a placebo-controlled trial of 28 diabetic patients [R].

37

Hydroxytyrosol And Punicalagin

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take hydroxytyrosol and punicalagin in supplement form, typically available in capsules or tablets. The general dosage for hydroxytyrosol is around 5-10mg per day, and for punicalagin, it is about 300-600mg per day. Consult the specific product's label for exact dosing. It is recommended to take these supplements with a meal to enhance absorption. Continue this regimen daily for at least 8-12 weeks to assess effectiveness.

Description

Hydroxytyrosol is a natural phenolic compound found in extra virgin olive oil. It is known for its antioxidant properties and may contribute to the health benefits associated with the Mediterranean diet. Punicalagin is a polyphenol found in pomegranates and is known for its antioxidant properties. It may contribute to the health benefits of pomegranate consumption, such as heart health and potential anti-cancer effects.

How it helps

In a 20-week placebo-controlled trial with 84 subjects, supplementation of hydroxytyrosol (9.9 mg) and punicalagin (195 mg) significantly reduced LDL cholesterol, oxidized LDL, triglycerides, systolic and diastolic blood pressure, increased HDL cholesterol in all, and FMD in those with endothelial dysfunction. In an 11-day placebo-controlled trial with 36 participants, hydroxytyrosol supplementation (50-100 mg/day) lowered triglyceride levels by up to 21.64% [R, R, R].

38

Inositol

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take inositol as a daily supplement, usually available in powder or capsule form. The typical dosage ranges from 2 grams to 18 grams per day, divided into smaller doses taken with meals and water to aid absorption. It's important to start with a lower dose and gradually increase to avoid digestive side effects.

TYPICAL STARTING DOSE

2 g

Description

Inositol is a naturally occurring compound that plays a role in cell signaling and neurotransmitter function. It has been studied for its potential in promoting mental health and managing conditions like anxiety and depression when used as a supplement under the guidance of a healthcare professional.

Inositol is a type of sugar that our bodies need to function. It was considered a vitamin (vitamin B8) until it was discovered that our bodies can make it from another common sugar, glucose [R].

Myo-inositol is the most common form of inositol. It plays a role in [R, R, R, R]:

- Heart health
- Normal blood sugar levels
- Mental health
- Cognitive function
- Reproductive health

Myo-inositol can convert to D-chiro-inositol in the body. These two forms of inositol are often combined in supplements. People use them to improve blood sugar control and PCOS [R, R, R].

How it helps

In a double-blinded RCT with 48 obese NAFLD patients, MI (4g/day) led to significant weight loss, lower systolic BP, reduced insulin levels, improved lipid profile, liver enzymes, and NAFLD severity compared to placebo after 8 weeks [R].

In a 12-month study with 80 postmenopausal women and metabolic syndrome, myo-inositol (2g b.i.d) showed significant improvements in glucose, insulin, HOMA-IR, triglycerides, HDL cholesterol, and blood pressure compared to placebo, while BMI and waist circumference remained unchanged [R].

In a study of 80 postmenopausal women with metabolic syndrome, myo-inositol (2g BID) alongside diet for 6 months significantly improved systolic and diastolic blood pressure, HOMA index, cholesterol, and triglycerides, while increasing HDL cholesterol (22%) compared to the diet and placebo groups [R].

39

Apples

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Incorporate at least one whole apple into your daily diet, either as a snack or part of your meals, ensuring to eat them consistently every day for an ongoing period to derive potential health benefits.

Description

Apples are a nutritious fruit known for their fiber content and antioxidant-rich skin. They support overall health by aiding digestion, reducing the risk of chronic diseases, and promoting heart health.

Apples (*Malus domestica Borkh.*) are one of the most widely consumed fruits in the world. They have a high nutritional value and content of antioxidants [R, R].

Eating apples is associated with a lower risk of [R, R]:

- Heart disease
- Asthma
- Diabetes

How it helps

Apples are rich in dietary fiber, which binds to cholesterol in your digestive system and helps remove it from your body. Also, the antioxidants in apples contribute to raising your high-density lipoprotein (HDL) or "good" cholesterol levels.

A meta-analysis found that apple or apple polyphenol intake led to increased high-density lipoprotein levels (SMD = 0.34) and reduced C-reactive protein levels (SMD = -0.43) compared to controls [R].

In a randomized trial with 46 participants, those who consumed 3 Gala apples daily for 6 weeks as part of their diet showed potential for reducing obesity-related inflammation, indicated by lower CRP levels [R].

A 5x4 weeks dietary study with 23 healthy volunteers found that consuming whole apples, apple pomace, or apple juices had no significant impact on lipoproteins, blood pressure, weight, waist-to-hip ratio, inflammation, gut microbiota, or glucose metabolism [R].

Out of 22 eligible studies (7 randomized controlled trials, 1 nonrandomized trial, and 14 prospective observational studies), apple intake in RCTs lowered BMI but had no notable impact on body weight, serum lipids, blood glucose, or blood pressure [R].

40

Astaxanthin

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take an astaxanthin supplement daily, with a typical dosage ranging from 4 to 12 mg. It is best taken with a fat-containing meal to enhance absorption.

TYPICAL STARTING DOSE

12 mg

Description

Astaxanthin is a powerful antioxidant found in certain microalgae and seafood. It is known for its potential benefits in reducing oxidative stress, supporting skin health, and promoting eye health.

Astaxanthin is a naturally-occurring orange-red pigment carotenoid found in algae, shrimp, lobster, crab, and salmon [R].
As an antioxidant, astaxanthin is **10 times stronger than zeaxanthin, lutein and beta-carotene, and 100 times stronger than vitamin E** [R].
People take astaxanthin to:

- Support skin health [R, R]
- Reduce exercise fatigue [R, R]
- Prevent heart disease [R, R, R]

How it helps

Astaxanthin is an antioxidant that can stimulate the production of HDL (the "good" cholesterol) in your blood. In turn, HDL reduces the harmful LDL cholesterol, helping maintain a healthier balance and reducing cardiovascular risk.

A meta-analysis of 7 studies and 321 participants at risk of metabolic syndrome concluded that astaxanthin **significantly lowers LDL cholesterol and marginally lowers total cholesterol and systolic blood pressure** [R].

In a placebo-controlled trial of 61 participants with elevated triglycerides, supplementation with astaxanthin (6-18 mg/day) for 12 weeks **lowered triglycerides and raised HDL** [R].

Astaxanthin (8 mg/day taken for 8 weeks) **lowered plasma glucose, triglycerides, visceral fat, VLDL, total cholesterol, and systolic blood pressure** in a placebo-controlled trial of 44 patients with type 2 diabetes [R].

A multi-ingredient nutraceutical with astaxanthin, red yeast rice, berberine, policosanol, coenzyme Q10, and folic acid (NComb) l**owers total cholesterol (by 26.15mg/dL), LDL-cholesterol (by 23.85mg/dL), triglycerides (by 13.83mg/dL) and glucose (by 2.59mg/dL) while increasing HDL-cholesterol (by 2.53mg/dL)** according to a meta-analysis of 14 trials and over 3k participants [R].

41

Black Seed (Black Cumin)

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take 1000 mg of black seed (black cumin) supplement daily, preferably split into two doses of 500 mg each, one in the morning and one in the evening.

TYPICAL STARTING DOSE

1000 mg

Description

Black seed, also known as black cumin or Nigella sativa, has been used for its potential health benefits in traditional medicine. It is believed to have anti-inflammatory, antioxidant, and immune-boosting properties.

Black seed (black cumin) and its oil are used in cooking and traditional medicine [R].

People use black seed for [R, R, R, R, R]:

- Asthma
- Allergies
- High blood sugar
- High blood pressure
- Joint pain

How it helps

In multiple placebo-controlled trials involving individuals with hyperlipidemia, menopausal symptoms, hypertension, NAFLD, and type 2 diabetes, supplementation with black seed in various forms (crushed seeds, extract, or oil) resulted in significant improvements in lipid profiles, including increased HDL cholesterol levels. However, the effects varied depending on the subgroup and exhibited high heterogeneity in meta-analyses. Combinations of black seed with other extracts also showed positive effects in some studies [R, R, R, R, R, R, R, R, R, R, R, R, R].

Black seed may help by regulating cholesterol synthesis, potentially increasing HDL while decreasing LDL cholesterol [R, R, R].

42

Vitamin D and Calcium

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Take 600 IU of vitamin D and 1000 mg of calcium daily. For adults over 70 years, the vitamin D intake should be increased to 800 IU daily. These supplements can be taken together or separately, usually with a meal to enhance absorption, and it is advisable to continue this regimen as part of your daily routine indefinitely unless advised otherwise by a healthcare provider.

Description

Vitamin D plus calcium supplements typically combine vitamin D, often sourced from sunlight exposure or dietary sources, with calcium, primarily found in dairy products and leafy greens. This combination is used to promote bone health, reduce the risk of osteoporosis, and support overall musculoskeletal well-being.

How it helps

In a trial of 70 women with gestational diabetes at 24-28 weeks of pregnancy, supplementation with vitamin D (500-1000 IU/day) and calcium (500-1000 mg/day) for 6 weeks reduced fasting glucose. The highest dose also lowered fasting serum insulin, LDL, and total cholesterol while increasing HDL [R].

43

Honey

IMPACT 1 / 5

EVIDENCE 3 / 5

How to implement

Consume 1-2 tablespoons of raw honey daily, either directly or by mixing it into warm water, tea, or yogurt. Continue this practice regularly to observe benefits.

Description

Honey is a natural sweetener known for its antimicrobial properties and potential benefits for wound healing. It contains antioxidants and may have soothing effects on sore throats and coughs.

Honey is a thick, sweet substance. It's made by honeybees from the nectar of flowering plants. There are many different types of honey. Besides sugar, honey also contains amino acids (protein building blocks), vitamins, and minerals [R].

People use honey for its anti-inflammatory and antioxidant properties. It can potentially help with [R]:

- Heart problems
- Gut problems
- Cough
- Burns

How it helps

Honey's antioxidants and anti-inflammatory properties may aid in improving one's cardiovascular health by raising HDL (good) cholesterol levels. However, it should be consumed in moderation as it is high in sugar and calories.

A meta-analysis of 18 trials found **low-certainty evidence** that honey, **especially Robinia, clover, and unprocessed raw honey, reduces total cholesterol (by 0.18 mmol/L), LDL-cholesterol (by 0.16 mmol/L), triglycerides (by 0.13 mmol/L), and ALT (by 9.75 U/L)** and **high-certainty evidence that it increases HDL-cholesterol (by 0.07 mmol/L)** [R].

However, a meta-analysis of 23 studies concluded that honey has **no significant effects on cholesterol and triglyceride levels** [R].

44

Tocotrienols

IMPACT 1 / 5

EVIDENCE 3 / 5

How to implement

Take tocotrienols as a dietary supplement in doses ranging from 100 to 200 mg, 1-2 times a day, ideally with meals to enhance absorption. This intake can be continuous, but it's recommended to review its effects with a healthcare provider periodically, typically every 6 to 12 months.

TYPICAL STARTING DOSE

100 mg

Description

Tocotrienols are a form of vitamin E that helps to protect your cells. They fight harmful substances in your body called free radicals, which can damage our cells and lead to illness. By helping your body in this way, tocotrienols contribute to overall health, boosting immunity, and slowing down aging processes.

How it helps

A meta-analysis of 15 randomized controlled trials found that tocotrienol supplementation increased HDL cholesterol by 0.146 mmol/L. Similarly, δ-tocotrienol in combination with resveratrol (400 mg capsule, δ-tocotrienol 250 mg; resveratrol 150 mg, 2x/day for 24 weeks) increased HDL cholesterol in a randomized controlled trial in 82 patients with metabolic syndrome. However, tocotrienol-rich vitamin E (Tocovid SuprabioTM, 200 mg, 2x/day for 12 months) failed to improve HDL cholesterol in a randomized controlled trial of 82 patients with metabolic syndrome. Likewise, a clinical trial with hypercholesterolemic subjects found no effects of Palmvitee (40 mg alpha-tocopherol, 48 mg alpha-tocotrienol, 112 mg gamma-tocotrienol, and 60 mg delta-tocotrienol/day for 4 weeks) on HDL cholesterol [R, R, R, R].

Tocotrienols may help by slowing down the production of LDL cholesterol, thereby pushing your body to produce more HDL cholesterol.

45

Barberry

IMPACT 1 / 5

EVIDENCE 3 / 5

How to implement

Take a barberry supplement of 500-1000 mg daily, divided into two or three doses with meals for up to 12 weeks. Do not exceed the recommended dose without consulting a healthcare provider.

TYPICAL STARTING DOSE

500 mg

Description

Barberry is an herbal remedy used in traditional medicine for its potential to support digestive health and reduce inflammation. It contains compounds that may have antimicrobial and antioxidant properties.

How it helps

While barberry supplementation has demonstrated significant reductions in total cholesterol, LDL-cholesterol, and triglycerides in several studies, it does not appear to have a substantial effect on HDL-cholesterol levels. This is consistent with the findings of a meta-analysis and clinical trials. However, a combination of barberry and milk thistle did manage to increase HDL-cholesterol levels in obese individuals with type 2 diabetes, suggesting a potential benefit for this specific population [R, R, R, R, R].

Barberry contains berberine, a compound that can improve HDL cholesterol levels by reducing inflammation and preventing the oxidation of low-density lipoproteins.

46

Cashews

IMPACT 1 / 5

EVIDENCE 3 / 5

How to implement

Incorporate a handful of cashews (about 1 to 2 ounces) into your daily diet. You can eat them as a snack, or add them to meals like salads, stir-fries, or oatmeal for added texture and nutritional benefits.

Description

Cashews are a nutrient-rich nut known for their healthy fats, vitamins, and minerals. They are a versatile snack option that can support heart health, provide energy, and contribute to overall well-being.

Cashews are actually seeds and a rich source of omega-6s, and minerals including magnesium, manganese, zinc, iron, and selenium. A 1-ounces serving provides 2300 mg of omega-6.

How it helps

Cashews are rich in monounsaturated fats, which are beneficial for increasing levels of high-density lipoprotein (HDL), referred to as 'good cholesterol'. By regularly consuming cashews, you can boost your HDL cholesterol levels, thus improving your heart health.

A meta-analysis of 38 studies identified cashews as significantly raising HDL cholesterol. However, 2 meta-analyses (the largest one with 6 trials and 531 participants) found no significant effects of cashews on HDL and other lipid parameters [R, R, R].

47

Extra Virgin Olive Oil (EVOO) With Thyme

IMPACT 1 / 5

EVIDENCE 2 / 5

How to implement

Incorporate 1-2 tablespoons of extra virgin olive oil (EVOO) mixed with 1 teaspoon of dried thyme into your daily diet. You can use this mixture as a salad dressing or drizzle it over cooked vegetables. It is recommended to consume this blend daily for ongoing health benefits.

Description

Olive oil infused with thyme is a flavorful and aromatic culinary ingredient. It can add both taste and potential health benefits, including antioxidant and anti-inflammatory properties, to dishes.

How it helps

Taking virgin olive oil enriched with thyme polyphenols (25 mL/day) for 3 weeks decreased the LDL:HDL and small HDL:large HDL ratios while increasing HDL antioxidants and functionality in a placebo-controlled trial of 33 patients with hypercholesterolemia [R, R, R, R, R, R, R, R, R, R].

Extra virgin olive oil (EVOO) is rich in monounsaturated fats that raise HDL. Adding thyme, an antioxidant-rich herb, may strengthen the immune system and further help prevent heart diseases.

48

L-Carnitine

IMPACT 1 / 5

EVIDENCE 2 / 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

500 mg

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 can assist in transporting fatty acids into your cells so they can be used for energy, which may help raise levels of HDL (good) cholesterol. This could improve cholesterol balance and heart health.

Two meta-analyses (the largest one with 67 studies with chronically ill and healthy participants) found L-carnitine (typically 2-3 g/day for 12-24 weeks) effective at lowering total cholesterol (by 8.53-9.47 mg/dL), LDL cholesterol (by 5.48-6.25 mg/dL), lipoprotein A (by 8.82 mg/dL), and triglyceride levels. **HDL increased (by 1.39 or 1.64 mg/dL).** However, in an older meta-analysis of 7 studies and 375 participants, l-carnitine **did not change HDL levels** in people with T2D, hyperlipidemia, obesity, or on hemodialysis [R, R, R].

L-carnitine (0.75 and 3 g/day for 8–24 weeks) lowered triglycerides and **raised HDL cholesterol (1.66 mg/dL, only with doses above 1 g/day)** in people with T2D, non-alcoholic steatohepatitis, knee osteoarthritis, and in those undergoing hemodialysis, according to a meta-analysis of 9 RCTs with 508 participants [R].

A meta-analysis of 4 trials and 284 participants concluded that L-carnitine also lowers total cholesterol (by 7.8 mg/dL), LDL cholesterol (by 8.8 mg/dL), and the apolipoproteins B100 (by 7.6 mg/dL) and A1 (by 6 mg/dL) in people with type 2 diabetes. **HDL increased not significantly (1.9 mg/dL)** [R].

In people on hemodialysis, L-carnitine **doesn't affect HDL,** but may slightly lower LDL cholesterol according to 2 meta-analyses (the largest one of 49 RCTs and 1,734 participants) [R, R].

A meta-analysis of 24 clinical trials explored l-carnitine supplementation's impact on lipid and glycemic profiles in adults with cardiovascular risk factors. It revealed that l-carnitine, especially at doses over 1500 mg/day, significantly improved lipid profiles, including total cholesterol, LDL cholesterol, **HDL cholesterol**, Lp(a), fasting glucose, HbA1C, and HOMA-IR. No significant effect was observed on triglycerides, Apo A-I, or Apo B100 [R].

A meta-analysis of 15 studies investigated L-carnitine's impact on glucolipid profile, insulin resistance, and liver enzymes in adults. Results showed significant improvements in fasting blood glucose, insulin, HOMA-IR, triglycerides, total cholesterol, LDL cholesterol, and ALT levels, **but no significant effect on HDL cholesterol** or AST levels. Longer duration of supplementation was associated with greater reductions in fasting blood glucose [R].

49

Saffron

IMPACT 1 / 5

EVIDENCE 2 / 5

How to implement

Take 20 mg of saffron supplement daily. This can be taken at any time of the day, with or without food.

TYPICAL STARTING DOSE

20 mg

Description

Saffron is a spice derived from the stigma of the saffron crocus flower, and is native to the Mediterranean and Asia. Its main compounds include crocin, picrocrocin, and safranal, which may contribute to its antioxidant properties and potential mood-enhancing effects.

Saffron is a yellow spice praised for its color, taste, and potential health benefits [R].

Saffron is rich in antioxidants such as *crocin*. Researchers are looking into its potential benefits for [R, R, R, R]:

- Gut conditions
- Heart health
- Mental health

How it helps

Saffron contains plant compounds that can positively influence heart health by decreasing LDL ("bad" cholesterol) and increasing HDL ("good" cholesterol). By raising HDL levels, Saffron can help transport bad cholesterol to the liver for elimination, reducing the risk of heart disease.

A meta-analysis assessed the effects of saffron and crocin supplementation on lipid and glucose levels in randomized clinical trials. Saffron and crocin positively impacted HDL-C, LDL-C, TC, and TG levels, but had no significant effect on blood glucose, indicating potential benefits for metabolic disorders [R].

6 studies were included in the current study. Pooled analysis of six studies for the effect of saffron on serum TG, TC and FBG concentrations and of five studies for LDL and HDL, showed a significant reduction in TG (-8.93 mg/dl) and TC levels (-5.72 mg/dl), a significant increase in HDL levels (2.7 mg/dl), and no significant effect on LDL and FBG levels [R].

We identified and analyzed 14 eligible studies in this meta-analysis. Our study found a significant reduction in cholesterol and TG following saffron intervention (-6.36 mg/d and -5.37 mg/dl, respectively). There was **n**o significant effect on weight and LDL concentration [R].

50

Red Yeast Rice

IMPACT 1 / 5

EVIDENCE 2 / 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

Red yeast rice extract (200-4,800 mg/day for 6-24 weeks) may increase HDL cholesterol. However, not all studies found this benefit, and when they did, the effects were modest. Red yeast rice has been mainly studied for lowering LDL cholesterol [R, R, R, R R].

Red yeast rice may help by increasing how much HDL cholesterol is made [R, R, R].

Please note: *Using supplements to target HDL in isolation is not recommended. You should target your overall cholesterol levels instead. Talk to your doctor to see if red yeast rice could improve your overall cholesterol levels. The FDA does not allow the sale of products containing monacolin K in the United States. Additionally, experts warn about the safety and variable efficacy of red yeast rice supplements. Products containing monacolin K may cause muscle and liver damage. Red yeast rice should not be used during pregnancy or breastfeeding. Talk to your doctor before taking red yeast rice* [R, R, R].

51

Calcium Supplements

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 500-600 mg of calcium supplement twice daily with food. For best absorption, do not exceed 600 mg at one time and ensure a total daily intake of 1000-1200 mg from all sources, including diet. Continue indefinitely for ongoing support of bone health.

TYPICAL STARTING DOSE

1000 mg

Description

Calcium supplements are commonly used to support bone health and prevent conditions like osteoporosis. Adequate calcium intake is essential for maintaining strong bones and teeth.

Calcium is the most abundant mineral in the human body. It is vital for the bones, heart, muscles, and nervous system [R].

Your body gets calcium from food and needs vitamin D to help absorb it. Calcium can be found in a variety of foods, including [R]:

- Dairy products
- Green, leafy vegetables
- Fish with edible soft bones (e.g., sardines)
- Calcium-fortified foods and beverages

How it helps

In a randomized controlled trial at a teaching hospital, 70 women with gestational diabetes at 24-28 weeks of pregnancy were divided into two groups. Group A received vitamin D 1000 IU and calcium 1000 mg daily, while Group B received vitamin D 250 IU and calcium 500 mg daily for 6 weeks. Group A showed significant reductions in fasting glucose, fasting serum insulin, LDL, and total cholesterol levels, and an increase in HDL levels. Group B only showed a significant decrease in fasting glucose after 6 weeks of supplementation [R].

Please note: *calcium competes with iron for absorption in the intestines, potentially exacerbating anemia or making it harder to manage. If you have anemia, consult your healthcare provider before using calcium supplements.*

52

White Kwao Krua (Pueraria Mirifica)

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a Pueraria mirifica supplement, commonly known as white kwao krua, once daily, with dosages typically ranging from 10 to 100 mg. It is best to start with the lowest dose to assess your body's response before possibly increasing the amount under medical supervision. The duration of use should be as advised by a healthcare professional, considering the specific health goals or conditions being targeted.

TYPICAL STARTING DOSE

10 mg

Description

White Kwao Krua, also called Pueraria Mirifica, is a plant found in Thailand known for its health benefits. It’s usually used as a supplement that can help balance hormones, improve skin health, and may have benefits for bone health. By taking this supplement, it can positively enhance your overall health and well-being.

How it helps

White Kwao Krua, also known as Pueraria Mirifica, can promote heart health through its phytoestrogen content, which have been found to help increase the levels of HDL 'good' cholesterol. These increased levels of HDL can help transport excess cholesterol from arteries to the liver for removal, reducing cholesterol-related health risks.

In a placebo-controlled trial of 19 postmenopausal women, supplementation with pueraria powder for 2 months increased HDL cholesterol (by 34%) while lowering apoB (by 9%), LDL:HDL (by 37%), and apoB:apoA-1 (by 35%) [R].

53

Hazelnuts

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a handful of hazelnuts (about 1 ounce or 28 grams) into your diet daily. You can eat them as a snack, sprinkle chopped hazelnuts over salads, or use hazelnut butter in smoothies. Ensure they are unsalted to keep your sodium intake low.

Description

Hazelnuts are a nutrient-dense nut rich in healthy fats, fiber, and essential vitamins and minerals. Incorporating hazelnuts into your diet can support heart health, provide energy, and contribute to overall nutritional wellness.

Hazelnuts are a good source of manganese, magnesium, as well as being really good for vitamin E, B6, and healthy fats. A 1-ounce serving provides 1.6 mg of manganese or 70%DV.

How it helps

Hazelnuts are rich in healthy fats and dietary fiber that help to increase your HDL (good cholesterol) levels. By raising these HDL levels, hazelnuts improve heart health by helping to remove other forms of cholesterol from your bloodstream.

Consuming a diet enriched with hazelnuts (18-20%) for 4 weeks increased FMD (by 56.6%) and HDL cholesterol (by 6.07%), while lowering total cholesterol (by 7.8%), triglycerides (by 7.3%), LDL cholesterol (by 6.17%), oxidized-LDL, hs-CRP, and sVCAM-1 levels in a non-placebo-controlled trial of 21 hypercholesterolemic participants. In a non-placebo-controlled trial of 61 healthy volunteers, consuming unpeeled hazelnuts increased HDL cholesterol (by 7.3%) and brachial artery peak systolic velocities (by 43.4-60.7%). Their combination with cocoa further increased the beneficial effects [R, R].

54

Bladderwrack

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 300-500 mg of bladderwrack supplement daily, preferably with meals to enhance absorption. It's recommended to start with the lower dose and gradually increase if needed. Consult with a healthcare provider before beginning, especially if you are pregnant, nursing, or have a medical condition like hyperthyroidism.

TYPICAL STARTING DOSE

300 mg

Description

Bladderwrack is a type of seaweed that has been used for its potential health benefits, including iodine content that supports thyroid function.

How it helps

In a placebo-controlled trial of 34 overweight and obese adults, supplementation with bladderwrack extract (2000 mg/day) for 12 weeks increased HDL-C (by 0.07 mmol/L) but failed to alter other lipid parameters [R].

Bladderwrack is rich in iodine. This can stimulate thyroid function, which in turn can help increase HDL-cholesterol levels.

55

Restorative Yoga

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Engage in restorative yoga sessions for 20-30 minutes, at least three times a week. Choose a quiet, comfortable space where you won't be disturbed, using props such as yoga mats, bolsters, and blankets to support your body in relaxing poses.

TYPICAL STARTING DOSE

30 minutes

Description

Restorative yoga is a gentle and therapeutic form of yoga that involves holding poses for extended periods to promote relaxation, reduce stress, and improve flexibility and joint mobility.

How it helps

In a non-placebo-controlled trial of 135 patients with metabolic syndrome, practicing restorative yoga for 48 weeks increased HDL-cholesterol [R].

Restorative yoga can promote overall wellness and help manage HDL cholesterol levels by reducing stress, a known contributor to high cholesterol.

56

Capsaicin

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Apply a capsaicin cream or gel to the affected area up to 4 times daily. Make sure the skin is intact and not broken. Start with a lower concentration (0.025%) and gradually increase to 0.075% if needed for pain relief. Use continuously for at least 4 weeks to evaluate its effectiveness.

Description

Capsaicin, found in chili peppers, is known for its potential to boost metabolism and promote weight loss. It can also provide pain relief when used topically in certain creams and ointments.

How it helps

In a placebo-controlled trial of 12 male patients with stable coronary artery disease, transdermal patches with oleic capsaicin (3 g) applied for 1 day improved ischemic threshold. In a placebo-controlled trial of 42 adults with low HDL cholesterol, supplementation with capsaicin (4 mg/day) for 3 months increased HDL cholesterol (by 0.08 mmol/L) while lowering triglycerides, CRP, and phospholipid transfer protein activity [R, R].

57

Hesperidin

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 500 mg of hesperidin supplement daily with water, preferably with a meal for better absorption. This should be maintained for at least a few weeks to gauge effectiveness, and adjustments should be made based on personal tolerance and results.

TYPICAL STARTING DOSE

500 mg

Description

Hesperidin is a flavonoid, a type of plant compound that has antioxidant and anti-inflammatory properties. It is found in citrus fruits, such as oranges, grapefruits, lemons, and tangerines.

People take hesperidin to reduce [R, R, R, R, R]:

- Inflammation
- Blood sugar
- Cholesterol

How it helps

Hesperidin, a bioflavonoid found in citrus fruits, can boost your HDL (good) cholesterol levels by improving lipid metabolism. Increased HDL helps to remove harmful LDL cholesterol, thereby reducing your risk of heart disease and stroke.

A 4-week trial with 75 myocardial infarction patients used 600 mg/day hesperidin or placebo. Hesperidin lowered E-selectin, raised adiponectin, and increased HDL-C in participants [R].

58

Bifidobacterium Lactis Bi-07

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

TYPICAL STARTING DOSE

10 billion CFU

Description

Bifidobacterium animalis is a probiotic bacterium that can be found in the healthy gut of most mammals, including humans. *B. lactis* was previously considered to be a separate species but was shown to be a subspecies of *B. animalis* [R, R].

People mainly take *B. animalis* to support gut health [R, R, R, R, R, R].

B. lactis Bi-07 is a strain that may help reduce the risk of diarrhea, improve gut health, and boost the immune system. It can be taken as a probiotic supplement or found in yogurts and fermented foods.

How it helps

In a placebo-controlled trial of with healthy adults aged 25-65, supplementation with xylo-oligosaccharide, *Bifidobacterium lactis* Bi-07, or their combination for 21 days improved bowel movements, vitality, happiness, and plasma HDL concentrations. Bi-07 also influenced gut microbiota (by significantly increasing *B. lactis* counts) and immune markers (lower lipopolysaccharide-stimulated IL-4 secretion in whole-blood cultures and salivary IgA content). The synbiotic combination showed potential for additional health benefits, including immune function modulation (by reducing the expression of CD19 on B cells) [R].

59

Avoid Exposure to Heavy Metals

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

To avoid exposure to heavy metals, ensure you're not using cosmetic products with heavy metals, opt for organic foods to minimize pesticide exposure, and use filters for drinking water to remove possible contaminants. Check for lead-based paints in older homes and avoid cooking or storing food in uncoated metal containers. When possible, choose glass or BPA-free plastics instead.

Description

Heavy metals are elements naturally found in the environment. They are also used for agricultural, industrial, and medicinal purposes. Some can even be found in small amounts in your body [R, R].

Long-term exposure to high amounts of heavy metals can be harmful to your health [R, R].

Heavy metals that are most often linked to health problems include [R, R]:

- Lead
- Cadmium
- Arsenic
- Chromium
- Mercury

How it helps

A study of 232 women associated elevated levels of blood cadmium, chromium, and nickel with increased total cholesterol, LDL cholesterol, and triglycerides, and decreased HDL cholesterol, as well as increased cortisol levels [R].

Heavy metals like lead or mercury can disrupt the body's ability to maintain healthy cholesterol levels.

60

Broccoli Sprouts

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Consume 2-4 tablespoons of fresh broccoli sprouts daily. They can be added to salads, sandwiches, or smoothies to make them easier to consume. Continue this practice daily for at least 3 months to potentially see benefits.

TYPICAL STARTING DOSE

2 tbsp

Description

Broccoli and broccoli sprouts are nutrient-dense vegetables packed with vitamins, minerals, and antioxidants. They are known for their potential to support a healthy immune system, protect against chronic diseases, and promote overall nutritional wellness.

How it helps

Broccoli sprouts are rich in sulforaphane, which can boost antioxidants and reduce inflammation, potentially increasing levels of high-density lipoprotein (HDL) or "good" cholesterol. Therefore, it may improve healthy cholesterol levels and heart health.

In a study with 72 participants (23 in group A, 26 in group B, and 23 in group C), a 4-week treatment with 10g/d of BSP significantly reduced serum triglycerides, OX-LDL/LDL ratio, and the atherogenic index of plasma ($p<0.05$). Group A also showed a significantly higher HDL-C concentration compared to group B and the placebo ($p<0.01$) [R].

A study involving 40 hypertensive individuals without diabetes and normal cholesterol levels found that ingesting 10g of dried broccoli sprouts daily for 4 weeks did not significantly improve endothelial function (measured by flow-mediated dilation, FMD) compared to a control group [R].

61

MCT Oil

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate 1 to 2 tablespoons of MCT oil into your daily diet by adding it to coffee, smoothies, or salad dressings. Start with a lower dose to assess tolerance before gradually increasing to the full dosage. Use daily for ongoing benefits.

Description

MCT oil is a type of dietary fat known for its rapid absorption and potential to provide quick energy. It is often used in ketogenic diets and may support weight management and cognitive function.

How it helps

MCT oil helps HDL cholesterol by raising its levels in your body, which improves heart health because HDL is often described as the "good" cholesterol. These oils can increase production of ketones, which may also contribute to reducing heart disease risk factors.

A meta-analysis of seven studies found that MCT oil intake had **no significant impact on total cholesterol, LDL cholesterol, or HDL cholesterol levels but did increase triglycerides**. Subgroup analysis indicated variations based on the type of comparators, suggesting potential effects on cholesterol levels. Subgroup analyses showed MCT oil increasing total cholesterol and LDL cholesterol when compared to a comparator consisting predominantly of unsaturated fatty acids, and with some evidence for reductions when compared to longer-chain SFAs [R].

Eleven eligible crossover and 1 parallel trial were identified with a total of 299 participants. All studies were pooled for the meta-analysis. Diets enriched with MCFAs led to significantly **higher high-density lipoprotein (HDL) cholesterol concentrations than diets enriched with LCSFAs** (0.11 mmol/L) with no effect on triglyceride, low-density lipoprotein (LDL) cholesterol, and total cholesterol concentrations [R].

62

Methylsulfonylmethane (MSM)

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 1 to 3 grams of Methylsulfonylmethane (MSM) per day, divided into three doses. This can be in the form of capsules or powder that is mixed with water. It is recommended to start with a lower dose to assess tolerance, then gradually increase to the desired dose over a period of 1 to 2 weeks.

TYPICAL STARTING DOSE

1 g

Description

MSM is a naturally occurring sulfur compound found in foods and used in dietary supplements. It has anti-inflammatory properties and may be used to support joint health and reduce exercise-related muscle soreness.

A molecule of MSM is broken down in the body into a sulfate (sulfur) group and two methyl groups.

The following may increase people’s needs for sulfur and methyl groups: physical activity, recovery from injuries, inflammation, infections/sickness, toxins, etc.

People also need more sulfur when taking hormones (DHEA, pregnenolone, etc.), drugs (Aspirin, Tylenol, NSAIDs, birth control, etc.) or supplements (flavonoids & polyphenols - resveratrol, quercetin, curcumin, etc.) that undergo sulfation.

How it helps

In a randomized, double-blind, placebo-controlled study with 22 overweight or obese adults, participants received either a placebo or 3 g of MSM daily for 16 weeks. Measurements were taken at baseline and after 4, 8, and 16 weeks. The primary finding showed an increase in high-density lipoprotein cholesterol at 8 and 16 weeks of daily MSM consumption compared to baseline [R].

63

Pumpkin Seed Oil

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 1 to 2 tablespoons of pumpkin seed oil daily, either directly or by adding it to salad dressings, smoothies, or yogurt. It's best consumed with meals to increase absorption.

Description

Pumpkin seed oil is a plant extract obtained from the seeds of the pumpkin (Cucurbita pepo). Traditionally, it has been used for its potential health benefits, including supporting prostate and urinary health. Its beneficial compounds include phytosterols, antioxidants, and essential fatty acids. It also nutrients like vitamin E and K, zinc, and magnesium.

Pumpkin seed oil is a good source of healthy fats and antioxidants [R, R].

It is used to support hair and prostate health [R, R, R].

How it helps

In a placebo-controlled trial of 35 postmenopausal women, consuming pumpkin seed oil (2 g/day) for 12 weeks **increased HDL cholesterol by 0.92 mmol/L** [R].

Pumpkin seeds are high in healthy fats, antioxidants, and fiber. This may boost HDL cholesterol levels.

64

Rutin

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 500mg of rutin supplement daily, preferably with a meal to enhance absorption. Continue this supplementation regularly for at least 4 weeks to evaluate its benefits on your health, as effects may take some time to become noticeable.

Description

Rutin is a flavonoid found primarily in citrus fruits, buckwheat, and tea, and is known for its antioxidant and anti-inflammatory properties. It may support cardiovascular health and promote strong blood vessels.

How it helps

A double-blind, placebo-controlled trial with 50 type 2 diabetes mellitus patients found that rutin (500 mg/day for 3 months) decreased fasting blood glucose, insulin, HbA1c, HOMO-IR, LDL-c, TG, VLDL, total cholesterol, LDL-c:HDL-c ratio, atherogenic index of plasma (AIP), IL-6, and malondialdehyde (MDA), while increasing HDL-c, quantitative insulin sensitivity check index (QUICKI), BDNF, and total antioxidant capacity (TAC). Hence rutin may improve metabolic parameters, BDNF, and inflammatory and oxidative stress factors in T2DM patients [R].

In a prospective, randomized, controlled study conducted on 53 type 2 diabetes patients. rutin with vitamin C and vitamin C only reduced fasting blood glucose and LDL- and total cholesterol [R].

Rutin may help because it helps remove other forms of cholesterol from your bloodstream.

Please note: *rutin 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 rutin and always consult with a healthcare provider before taking this supplement* [R].

65

Stair Climbing

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate stair climbing into your daily routine by choosing stairs over elevators or escalators whenever possible. Aim for at least 10 minutes of continuous stair climbing or multiple shorter sessions that add up to 10 minutes per day. This practice can be continued indefinitely to maintain or improve cardiovascular health and lower body strength.

TYPICAL STARTING DOSE

10 minutes

Description

Stair climbing is a great way to get a full-body workout, improve your cardiovascular health, and burn calories. It can also help to improve your balance and coordination.

How it helps

In one trial, stair climbing over 7 weeks improved HDL cholesterol and reduced total:HDL ratio, while VO2 and heart rate decreased. In another trial, 8 weeks of stair climbing increased VO2max and reduced LDL cholesterol without affecting other lipid markers [R, R].

Stair climbing increases heart rate and promotes a better blood flow, which helps raise HDL cholesterol levels.

66

Theaflavins

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a supplement containing 100-200mg of theaflavins daily, preferably with a meal to enhance absorption. This regimen should be maintained consistently for at least 3 to 6 months to evaluate its benefits on health.

Description

Theaflavins are antioxidants found in black tea, particularly after fermentation. They are associated with various potential health benefits, including supporting heart health and reducing oxidative stress.

How it helps

Consuming theaflavin-enriched green tea as an add-on to a low-fat diet for 12 weeks increased HDL-C by 2.3% in a placebo-controlled trial of 240 participants [R].

Theaflavins may help by blocking cholesterol absorption in the intestine and enhancing its excretion from the body.

67

Brewer's Yeast

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 1 to 2 tablespoons of brewer's yeast daily, mixing it into water, juice, smoothies, or food. It can be consumed at any time of day, but incorporating it into a regular, daily routine ensures consistent intake. Continuation can be long-term if it agrees with your system and you're seeing desired outcomes.

Description

Brewer's yeast is a nutritional supplement rich in B vitamins, minerals, and protein. It's often used to support energy levels, boost metabolism, and promote overall health, particularly for individuals with dietary restrictions or specific nutritional needs.

Brewer's yeast is a great source of B-vitamins and minerals like chromium, iron, zinc, and selenium. A 1 tablespoon serving provides 3.3 mcg of chromium or 9%DV.

How it helps

Brewer's Yeast is rich in chromium, which can increase the levels of High-Density Lipoprotein (HDL), or "good cholesterol", in your body. Additionally, it also decreases Low-Density Lipoprotein (LDL), or "bad cholesterol", thus improving your overall cholesterol levels.

The subjects (n=21) were randomly assigned into either brewer's yeast or torula yeast group and consumed 10 g yeast powder daily for 12 wk. Brewer's yeast demonstrated a beneficial effect on decreasing serum triacylglycerol values [R].

In a study with 78 type 2 diabetes patients, Brewer's yeast (23.3ug Cr/day) and CrCl3 (200ug Cr/day) supplements, given sequentially with a placebo in between, led to decreased glucose levels (fasting and post-glucose load), fructosamine, and triglycerides, while increasing HDL-cholesterol, serum, and urinary chromium [R].

This study aimed to investigate the impact of brewer's yeast on plasma glucose and lipid profiles in 55 patients with type 2 diabetes and hypercholesterolemia. Patients took 12 tablets of 300 mg yeast daily for 8 weeks, resulting in decreased triglycerides and LDL-C levels at Weeks 4 and 8, while HDL-C levels increased significantly at both time points compared to baseline [R].

However, in a 12-week trial, 84 adults with type 2 diabetes received brewer's yeast (1800 mg/day) or a placebo, and brewer's yeast reduced systolic and diastolic blood pressure significantly but had no significant impact on LDL-C, HDL-C, triglycerides, or cholesterol levels [R].

68

Genistein

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a genistein supplement daily, with a usual dosage range between 30 mg to 100 mg. It is best taken with food to enhance absorption. Continue this regimen daily for at least six months to evaluate its benefits fully.

TYPICAL STARTING DOSE

30 mg

Description

Genistein is an isoflavone found in soy products that may offer potential health benefits, including antioxidant and anti-inflammatory properties. It has been studied for its potential role in hormone regulation and the reduction of certain cancer risks.

How it helps

Genistein intake may significantly reduce total cholesterol, LDL cholesterol, and systolic blood pressure, with greater effects in postmenopausal women with metabolic syndrome and longer durations of intake [R].

In one study, LDL cholesterol reduction with genistein was not statistically significant, but other outcomes like total cholesterol, HDL cholesterol, fasting glucose, and insulin showed significant differences [R].

In another study, genistein effectively lowered homocysteine levels and increased HDL cholesterol levels. It reduced LDL cholesterol, total cholesterol, and triglycerides in postmenopausal women with metabolic syndrome but not in others [R].

69

Oregano Oil

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take oregano oil as a supplement by diluting it with a carrier oil such as olive oil; mix 1 drop of oregano oil with at least 1 teaspoon of a carrier oil. You can take this mixture orally 1-2 times daily for up to 2 weeks. Always start with a small dosage to check for any adverse reactions.

TYPICAL STARTING DOSE

1 drop

Description

Oregano oil (origanum vulgare) is an essential oil extracted from the leaves and flowers of the oregano plant. Its active components include carvacrol, thymol, rosmarinic acid, and terpenoids. It has been used in traditional medicines for centuries for immune and digestive health.

How it helps

Oregano oil contains bioactive compounds like carvacrol that are believed to lower bad LDL cholesterol levels while maintaining or slightly increasing good HDL cholesterol. Yet, no substantial empirical studies confirm this benefit, thus ensuring thorough medical advice is crucial before considering this supplement.

An RCT with 34 trained athletes found that the essential oil of Origanum vulgare subsp. hirtum (HIR) **increased HDL-C levels** [R].

70

Rooibos

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take rooibos as a tea by steeping 1.5 to 2 teaspoons (2.5-5 grams) of loose leaf rooibos or one tea bag in about 8 ounces of boiling water for 10 minutes. Drink 1 to 2 cups daily. This can be enjoyed hot or cold, according to personal preference.

TYPICAL STARTING DOSE

3 g

Description

Rooibos, also known as red bush tea, is a plant native to South Africa. Traditionally, its leaves are harvested, fermented, and brewed into a caffeine-free herbal tea. It's rich in antioxidants, such as aspalathin and quercetin, and is valued for its low tannin levels and high content of nutrients like vitamin C and minerals like manganese and potassium.

How it helps

Rooibos tea contains antioxidants that could potentially help increase HDL ("good") cholesterol levels. However, more research is needed to confirm these effects accurately.

In a 6-week clinical trial with 40 at-risk adults for cardiovascular disease, drinking 6 cups of fermented/traditional rooibos daily resulted in reduced lipid peroxidation markers, increased glutathione levels, improved redox status, and favorable changes in cholesterol levels [R].

71

Bananas

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate 1-2 bananas into your daily diet. Bananas can be eaten as a standalone snack, added to cereal, oatmeal, or smoothies, or used as an ingredient in baking. Aim to include them regularly for ongoing dietary benefits.

Description

Bananas are a nutrient-rich fruit packed with potassium, fiber, and essential vitamins. They are a convenient and healthy snack option that can help support heart health, digestive regularity, and overall well-being.

Bananas are a good source of vitamins B6 and C, as well as numerous minerals, including potassium, copper, and magnesium. A single banana provides 0.4 mg of vitamin B6 or 25%DV.

How it helps

Bananas are rich in fiber, which can help control cholesterol levels. In particular, they can increase levels of high-density lipoprotein (HDL) cholesterol, the "good" cholesterol that helps protect your heart health.

In a study involving hypercholesterolemic and type 2 diabetic subjects, daily consumption of 250 or 500 grams of banana for 12 weeks led to significant reductions in fasting blood glucose and LDL-cholesterol/HDL-cholesterol ratio in hypercholesterolemic individuals. For diabetic patients, blood glucose and lipid changes were not statistically significant, but there was a significant increase in plasma adiponectin levels [R].

72

Pilates

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Engage in Pilates exercises for at least 20-30 minutes, 3 times a week. Focus on core strength, flexibility, and mindful breathing. It is suitable for both beginners and advanced individuals, adjusting the difficulty of exercises as necessary.

TYPICAL STARTING DOSE

30 minutes

Description

Pilates is a form of exercise that focuses on strengthening the core, improving flexibility, and enhancing overall body awareness through controlled movements and breathing techniques. Its health benefits include increased core strength, improved posture, enhanced flexibility, and better balance, making it a popular choice for those seeking a holistic approach to fitness.

Pilates is a type of exercise that emphasizes proper alignment, breathing techniques, and precise movements.

It involves a series of controlled movements performed on a mat or with specialized equipment, such as a reformer or Cadillac. Pilates helps strengthen the core muscles, improve flexibility, and promote mind-body awareness.

How it helps

In a non-placebo-controlled trial of 196 overweight or obese women, practicing Pilates for 10 weeks lowered total cholesterol (by 5.3%), non-HDL cholesterol (by 8.3%), LDL cholesterol (by 7.5%), and triglycerides (by 6%), while increasing HDL cholesterol (by 3.1%). However, Nordic walking was more effective. A hypoxic pilates intervention (3x/day for 12 weeks) improved total cholesterol and triglycerides in a non-placebo-controlled trial of 32 obese women. However, Pilates failed to improve blood lipid profile in a non-placebo-controlled trial of 35 sedentary women with dyslipidemia [R, R, R].

Pilates may help by improving metabolism and promoting the efficient burning of fats. Over time, this means your body has a better balance of HDL cholesterol.

73

Shilajit

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a pea-sized portion (approximately 500mg) of purified shilajit resin and dissolve it in warm water, tea, or milk. Consume this once daily, ideally in the morning on an empty stomach for best absorption. Continue this routine daily for 6 to 8 weeks to observe benefits.

TYPICAL STARTING DOSE

500 mg

Description

Shilajit, also known as shilaras or bitumen, is a tar-like substance that oozes from sedimentary rocks worldwide, especially in the Himalayas. It is made of rock humus, minerals, and organic substances (e.g., marine organisms) decomposed by microbes and compressed by layers of rock [R].

Shilajit is called a rasayana (rejuvenator) and a maharasa (super-vitalizer) in Ayurveda (indigenous Indian medicine). It is traditionally used to [R, R, R]:

- Boost energy levels
- Improve memory and focus
- Fight stress
- Manage male reproductive disorders

Shilajit is sold as capsules or powder [R].

How it helps

Shilajit is believed to improve heart health by raising HDL (good) cholesterol levels. It does this by reducing the buildup of triglycerides in the blood and increasing enzymatic activity that maintains cholesterol balance.

In a placebo-controlled trial of 30 medical students, supplementation with shilajit (2 g) for 45 days **raised HDL-cholesterol levels (by 2.4 mg/dL)** [R].

74

Sage Extract

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take sage extract in supplement form, ideally in doses ranging from 300 to 600 mg daily, divided into 2 or 3 doses throughout the day. It is recommended to follow this regimen for at least 1 to 2 months to evaluate its effects on cognitive function and mood improvements.

TYPICAL STARTING DOSE

300 mg

Description

Common sage (*Salvia officinalis*) is an herb from the mint family. It is native to the Mediterranean region. The main compounds in sage extract include essential oils like thujone and cineole, which contribute to its flavor and potential benefit for sore throats and digestive issues [R].

People commonly use sage as a spice and a traditional remedy for [R, R]:

- Sore throat
- Mood
- Blood sugar and cholesterol control
- Heavy sweating

How it helps

In a placebo-controlled trial of 67 hyperlipidemic participants, supplementation with sage extract lowered total cholesterol, LDL cholesterol, VLDL cholesterol, and triglycerides while increasing HDL cholesterol [R].

Similarly, drinking sage tea lowered total cholesterol and LDL cholesterol while increasing HDL cholesterol in an uncontrolled trial of 6 women [R].

Please note: *rosmarinic acid from sage 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 sage extract and always consult with a healthcare provider before taking this supplement* [R].

75

Nattokinase and Red Yeast Rice

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 100mg of nattokinase and 1,200mg of red yeast rice daily with water. It is best consumed with food to enhance absorption and reduce any potential gastrointestinal discomfort. This regimen should be followed consistently for at least 3-6 months to evaluate effectiveness.

Description

Nattokinase is an enzyme derived from natto (fermented soybean) and is believed to have potential blood-thinning properties, potentially supporting cardiovascular health by promoting healthy blood circulation. Red yeast rice is a natural product made from fermented rice and contains compounds that may help lower cholesterol levels and support heart health when used as a dietary supplement.

How it helps

In a 6-month placebo-controlled trial of 47 patients with hyperlipidemia, the combination of nattokinase (50 mg, 4x/day) and red yeast rice (300 mg, 4x/day), but not nattokinase alone, lowered the TC/HDL-C ratio (by 29.5%) while increasing HDL-cholesterol (by 7.5%) [R].

Nattokinase is an enzyme that helps break down blood clots, which can increase the amount of HDL cholesterol in the blood. Red yeast rice naturally contains substances similar to statin drugs, which can lower LDL cholesterol and increase HDL cholesterol.

76

Garlic

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate 1-2 cloves of raw garlic into your meals daily. This can be achieved by finely chopping or crushing the garlic and letting it sit for a few minutes before adding it to your dishes to maximize its health benefits.

Description

Garlic is a popular herb known for its potential cardiovascular benefits, including lowering blood pressure and cholesterol levels. It also possesses antimicrobial properties and may support immune function.

Garlic is a vegetable often used to flavor food. It's been a part of traditional medicine for thousands of years [R].

Today, people take garlic to help control their blood pressure and cholesterol [R].

How it helps

Garlic may help increase HDL cholesterol. Studied forms include [R, R]:

- **Garlic powder**: 600–5,600 mg/day
- **Garlic oil**: 9–18 mg/day
- **Aged garlic extract**: 1,000–7,200 mg/day
- **Raw garlic**: 4–10 g/day

However, the majority of studies didn't find significant effects. They showed that garlic was much better at decreasing "bad" cholesterol than increasing "good" cholesterol [R, R, R, R, R].

If garlic does affect HDL cholesterol, it may do so by reducing its breakdown [R, R].

Please note: *Using supplements to target HDL in isolation is not recommended. You should target your overall cholesterol levels instead. Talk to your doctor to see if garlic could improve your overall cholesterol levels. Garlic can interact with blood thinners (such as aspirin, Plavix, and Coumadin). In addition, garlic can irritate the stomach in some people. Talk to your doctor before taking garlic* [R, R].

77

Guava

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate fresh guava into your diet by consuming 1-2 whole fruits daily or adding sliced guava to salads, smoothies, or yogurts. This can be continued as a regular part of your daily dietary intake to obtain its nutritional benefits.

Description

Guava is a nutritious fruit rich in vitamins, minerals, and dietary fiber. Consuming guava can support immune health, digestive regularity, and overall well-being.

Guava (*Psidium guajava* L.) is a tropical fruit found from India to Indonesia, and the Caribbean to Latin America. The fruit and leaves of the guava plant have been used medicinally for centuries.

People use guava fruit and leaf extracts to potentially help with [R, R]:

- Diabetes
- Digestive issues
- Weight control
- Joint health

How it helps

Guava is rich in dietary fiber and vitamins like vitamin C that may help increase HDL cholesterol levels, the "good" cholesterol, hence improving overall heart health. It also contains antioxidants which help to decrease LDL, or "bad" cholesterol, further contributing to a balanced cholesterol profile.

In 2 non-placebo-controlled trials of 265 patients with hypertension, consuming guava (0.5-1 kg/day) for 12 weeks lowered total cholesterol (by 7.9-9.9%), triglycerides (by 7-7.7%) and blood pressure (by 7.5-9.0 mmHg for systolic and 8.0-8.5 mmHg for diastolic) while increasing HDL cholesterol (by 4.6-8.0%) [R, R].

78

Avoid Selenium Supplements

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Do not take any dietary supplements that contain selenium. Check the labels of all multivitamins or dietary supplements you are considering to ensure they do not list selenium as an ingredient.

Description

You may need to stop taking selenium supplements. You should also make sure that your total selenium intake from any other supplements does not exceed the recommended daily intake dose [R, R, R].

How it helps

Genetically higher selenium levels may be causally associated with lower LDL and HDL cholesterol [R].

However, supplementation may not significantly impact HDL cholesterol [R, R, R, R].

79

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 controlled study of 34 children, consuming a beverage with *L. casei* Shirota for 6 months increased HDL by 11.1% [R].

L. casei may indirectly improve HDL cholesterol by promoting gut health and reducing inflammation.

80

Tennis

IMPACT 1 / 5

EVIDENCE 1 / 5

Description

Tennis is a great way to get exercise, improve your cardiovascular health, and burn calories. It can also help you build strength, improve your coordination, and relieve stress.

How it helps

In a non-placebo-controlled trial of 32 participants, those who were recreational tennis players showed higher HDL cholesterol and lower body weight [R].

81

Bacillus Clausii

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take Bacillus clausii as an oral probiotic supplement, usually found in liquid or capsule form. For adults and children, the typical dosage is one or two capsules (or one or two vials of liquid, if using that form) daily. The duration of use can vary; some may take it for a few weeks during or after antibiotic treatment, while others might use it for longer periods to support digestive health.

Description

Bacillus causii is a type of beneficial bacteria that can be found in probiotic supplements, potentially contributing to digestive health and a balanced gut microbiome.

How it helps

In a placebo-controlled trial of 20 patients with type 2 diabetes, supplementation with *B. clausii* for 90 days lowered blood glucose, raised HDL-C, and improved intestinal microbiota profiles [R].

82

Mangiferin

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a mangiferin supplement of approximately 150-300 mg daily, ideally with a meal to enhance absorption. The duration of use depends on the specific health concern being addressed and recommendations from a healthcare provider.

TYPICAL STARTING DOSE

150 mg

Description

Mangiferin, a natural compound found in mangoes and other plants, is known for its antioxidant and anti-inflammatory properties. It has the potential to protect cells from oxidative stress and inflammation, promoting overall well-being.

Mangiferin is a natural compound found in mangoes and several other plants.

Researchers are interested in its potential benefits for blood sugar control, liver health, heart health, and more. However, the available evidence to support its use as a supplement is limited [R].

How it helps

In a placebo-controlled trial of 104 overweight patients with hyperlipidemia, supplementation with mangiferin (150 mg/day) for 12 weeks raised HDL levels [R].

Mangiferin may help by increasing the activity of certain proteins that help remove LDL cholesterol from the body, thereby balancing your overall cholesterol levels.

83

Lutein

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Increase your intake of lutein by eating more dark, leafy greens such as spinach and kale, as well as other foods like corn, peas, and egg yolks. Aim to include these in your daily diet, consuming at least one serving of lutein-rich foods per meal. It can also be taken as a supplement.

Description

Lutein is an antioxidant pigment found in the eye, and may support eye health. It is commonly found in leafy green vegetables.

Lutein is an antioxidant pigment found in the eye. Many plants contain lutein, including [R, R]:

- Leafy greens (kale, spinach, leeks, lettuce)
- Cantaloupe
- Corn
- Peas
- Peppers
- Herbs (basil, parsley)

Lutein may help support eye health [R, R].

How it helps

While Lutein and zeaxanthin are primarily known for their benefits to eye health, some studies suggest they may also have a positive impact on HDL ("good") cholesterol levels.

The exact mechanism is not fully understood, but it's thought to be related to their antioxidant properties. These antioxidants may help protect HDL cholesterol from oxidation, which can prevent it from performing its function of removing harmful LDL ("bad") cholesterol from the bloodstream.

Electronic assessment of interventional studies via various databases until June 2021 found that L/Z supplementation has no significant impact on total cholesterol (TC) and LDL-C levels but can increase HDL-C levels in older adults [R].

84

Perilla Oil

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 600-900 mg of perilla oil daily, ideally with meals to enhance absorption. This should be divided into two or three doses throughout the day. Continue this regimen for at least 8 to 12 weeks to evaluate its effectiveness.

TYPICAL STARTING DOSE

600 mg

Description

Perilla oil is an edible oil extracted from the seeds of the Perilla frutescens plant, which is native to Asia. It is rich in omega-3 fatty acids, particularly alpha-linolenic acid (ALA), and is known for its potential health benefits, including supporting heart health, reducing inflammation, and providing essential nutrients like vitamin E and omega-3s.

How it helps

A trial with patients with hyperlipidemia found that perilla oil (for 8 weeks) **lowered triglyceride (TG), total cholesterol (TC), and LDL-C** after 56 days of treatment. It also **increased HDL-C after 28 and 56 days of treatment.** Plasma lipid levels were significantly lower after 56 days of treatment [R].

85

Coriander

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take coriander supplements in the form of capsules or powder. If using powder, aim for 1/4 to 1/2 teaspoon per day, mixed into food or drinks. If taking capsules, follow the dosage instructions provided on the product label, typically one capsule, one to two times daily with meals. Continue consistently for at least a few weeks to observe effects.

Description

Coriander is an herb and spice rich in antioxidants and essential oils. It's used in culinary dishes and traditional medicine for its potential to aid digestion, reduce inflammation, and contribute to overall nutritional wellness.

How it helps

In a non-placebo-controlled trial of 80 hyperlipidemic patients, supplementation with coriander seed powder (2 g/day), both alone and combined with the same amount of garlic powder, for 40 days increased HDL-cholesterol levels [R].

Cilantro is rich in antioxidants, which can help raise HDL cholesterol levels.

86

Macadamia Nuts

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a handful of macadamia nuts (about 10-12 nuts or 30 grams) into your daily diet. You can eat them alone as a snack, add them to salads, or use them in baking. Do this regularly as part of a healthy diet to reap the benefits.

Description

Macadamia nuts are a nutrient-dense snack rich in heart-healthy monounsaturated fats, fiber, and antioxidants. Consuming macadamia nuts in moderation can support cardiovascular health, help regulate cholesterol levels, and provide essential nutrients.

How it helps

In an uncontrolled trial of 17 hypercholesterolemic men, consuming macadamia nuts (40-90 g/day) for 4 weeks increased HDL cholesterol (by 7.9%). However, consuming a macadamia nut-based diet for 3 weeks decreased HDL cholesterol in a non-placebo-controlled trial of 71 healthy women [R, R].

Macadamia nuts are high in heart-healthy monounsaturated fats, which can lower LDL cholesterol while increasing HDL cholesterol.

87

Black Garlic

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate black garlic into your diet by adding 1 to 2 cloves to meals daily. You can use it in sauces, as a topping for dishes, or blend it into dressings. Consistent consumption for at least 4 weeks is suggested to observe potential health benefits.

Description

Black garlic is garlic that has been fermented, resulting in a sweet and savory flavor profile. It is believed to have antioxidant and anti-inflammatory properties, potentially offering health benefits such as immune support and improved cardiovascular health.

How it helps

In a placebo-controlled trial of 60 participants with mild hypercholesterolemia, supplementation with aged black garlic (6 g/day) before breakfast for 12 weeks increased HDL cholesterol and LDL:apoB while lowering apoB [R].

Black garlic can help raise your HDL cholesterol because it contains S-allylcysteine.

88

Avoid Cadmium Exposure

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

To avoid cadmium exposure, refrain from smoking or exposure to secondhand smoke, reduce consumption of foods high in cadmium like shellfish, liver, kidney meats, and certain leafy vegetables, and use ceramic or glass containers instead of plastic when microwaving food. Limit intake of cadmium-contaminated workplace air by using protective gear if you work in battery manufacturing, welding, or metal refining industries.

Description

Avoiding cadmium exposure is essential to prevent potential health risks associated with this heavy metal, such as kidney damage and increased cancer risk. Reducing exposure to cadmium-containing products and contaminated foods is crucial.

Heavy metals are elements naturally found in the environment. They are also used for agricultural, industrial, and medicinal purposes. Some can even be found in small amounts in your body [R, R].

Long-term exposure to high amounts of heavy metals can be harmful to your health [R, R].

Heavy metals that are most often linked to health problems include [R, R]:

- Lead
- Cadmium
- Arsenic
- Chromium
- Mercury

How it helps

Elevated urinary and blood cadmium levels were linked to increased cardiovascular disease mortality (34% and 78%, respectively). Similar associations were observed in never smokers. Cadmium exposure markers were also linked to coronary heart disease, stroke, peripheral artery disease, and adverse lipid profile changes. High cadmium exposure correlated with elevated total cholesterol and LDL cholesterol levels and decreased HDL cholesterol levels [R].

89

Ecklonia Cava

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a supplement of Ecklonia Cava extract, typically available in capsule format, with a standard dose ranging between 100-400 mg daily. It can be taken with or without food, but consistency in timing can help maintain stable levels in your body. It's generally recommended to start with the lower end of the dosing spectrum and adjust based on personal tolerance and efficacy. Continue taking daily for at least a few weeks to gauge the full effect.

TYPICAL STARTING DOSE

100 mg

Description

Ecklonia cava is a type of brown seaweed often used in supplements for its potential antioxidant and anti-inflammatory properties, which may support cardiovascular health and overall well-being.

Ecklonia cava, also known as “sea trumpet”, is a brown seaweed that grows along the coasts of Korea and Japan. People use it as a food, fertilizer, and supplement [R, R].

Ecklonia cava is traditionally used to fight [R, R, R]:

- Urinary diseases
- Hemorrhoids
- Constipation

How it helps

A 12-week oral supplementation of Ecklonia cava polyphenols in overweight Korean individuals significantly decreased BMI, body fat ratio, waist circumference, waist/hip ratio, total cholesterol, low-density lipoprotein (LDL) cholesterol, total cholesterol/high-density lipoprotein (HDL) cholesterol, and atherogenic index. The high-dose group also showed significant decreases in serum glucose and systolic blood pressure [R].

90

Artemisia Extract

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take an artemisia extract supplement, usually available in capsule form, with a typical dosage ranging from 200 to 400 mg daily. This should be taken with water, preferably after meals to reduce the risk of stomach upset. Follow the specific dosage recommended on the product label or by a healthcare provider for up to 4 weeks.

TYPICAL STARTING DOSE

200 mg

Description

Artemisia extract is derived from various species of the Artemisia plant, and it is used in traditional medicine for its potential medicinal properties. It is being studied for its possible role in supporting digestive health and immune function.

How it helps

Supplementation with *Artemisia dracunculus* (1000 mg before breakfast and dinner) for 90 days lowered systolic blood pressure (by 7 mmHg), HbA1c (by 0.2%), AUC of insulin, and total insulin secretion, while increasing HDL cholesterol, in a placebo-controlled trial of 24 patients with impaired glucose tolerance [R].

Artemisia extract may help by improving overall lipid metabolism.

91

Air Purifier

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Install an air purifier in your home, ideally in the rooms you spend the most time in, such as your bedroom and living room. Keep the air purifier on for at least 12 hours each day, or continuously if possible, to effectively reduce airborne contaminants. Regularly clean or replace the filters according to the manufacturer's instructions to maintain its efficiency.

Description

Air purification is the process of cleaning the air around us. Using a high-quality air purifier with a HEPA filter helps remove harmful particles like dust, smoke, and bacteria. Having clean air to breathe can help boost your health by reducing allergies, asthma problems, and even certain infections.

How it helps

Air purification helps remove pollutants and particles from your environment, but it doesn't directly affect HDL cholesterol levels. Therefore, it doesn't serve as a treatment for this condition.

In a placebo-controlled trial of 24 patients with stable coronary artery disease, air purification lowered CRP (by 20.93-24.11%) and increased HDL cholesterol (by 5.1-6.48%) [R].

92

Kiwifruit

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Eat one to two kiwifruits daily, either as a snack or incorporated into your meals. You can consume them for breakfast, add them to a salad for lunch, or blend them into a smoothie. Continue this practice as a regular part of your diet to gain its nutritional benefits.

Description

Kiwifruit is a vitamin C-rich fruit that supports immune health, digestion, and skin vitality. It's also a good source of dietary fiber, making it a nutritious addition to a balanced diet.

Kiwifruit are technically berries, full of vitamin E, fiber, other minerals and vitamins, particularly vitamin K and C. One kiwifruit provides 1.1 mg of vitamin E or 7%DV.

How it helps

Kiwifruits are rich in antioxidants and fiber, which help in increasing your HDL (good) cholesterol levels. They prevent the oxidation of LDL (bad) cholesterol, thus reducing the risk of heart disease.

In a randomized controlled cross-over study with 85 hypercholesterolaemic men (LDL-C > 3.0 mmol/l and TAG < 3 mmol/l), kiwifruits (2 units/day for 4 weeks) plus healthy diet **increased plasma HDL-cholesterol** (MD 0.04; 0.07 mmol/L) and **lower total cholesterol:HDL-C ratio** (MD 20.5; 20.05 mmol/L). In carriers of the APOE4 allele, kiwi **also lowered triglycerides** (MD -0.18; -0.02 mol/L) but did not change plasma total cholesterol, LDL-C, insulin, glucose, hs-CRP, or blood pressure [R].

In a controlled cross-over study with 85 hypercholesterolaemic men following a healthy diet (for 4 weeks), kiwifruit (2 units/day) plus healthy diet (for 8 weeks) **improved plasma HDL cholesterol (MD 0.08 mmol/L), total cholesterol /HDL-C ratio (-0.29 mmol/L), plasma hs-CRP (-22.1%) and IL-6 (-43.7%)** compared to control treatment **in people with hs-CRP <1 mg/L** but did not change these parameters in people with hs-CRP <1 mg/L [R].

93

Hemp Seeds

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate 1-2 tablespoons of hemp seeds into your daily diet. You can add them to smoothies, sprinkle them on top of salads or yogurt, or mix them into oatmeal. Consistency in daily consumption is key for best results.

Description

Hemp seeds are nutrient-rich and contain essential fatty acids, protein, and minerals. They can be a valuable addition to a balanced diet, supporting overall health and providing a source of plant-based nutrition.

How it helps

In a placebo-controlled trial of 48 sedentary young men, supplementation with hemp seed, both alone and in combination with physical activity increased HDL cholesterol levels [R].

Hemp seeds are rich in heart-healthy nutrients like fiber, omega-3, and omega-6 fatty acids, which can help increase HDL cholesterol.

94

Avoid Perchlorate

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

To avoid perchlorate, check water quality reports for your area to ensure your drinking water does not contain high levels of perchlorate. Also, limit consumption of foods known to have higher perchlorate levels, such as leafy green vegetables, dairy products, and fruits, or opt for organic versions of these foods as organic farming standards restrict certain chemicals.

Description

Perchlorate is a chemical that can interfere with the thyroid gland's ability to produce thyroid hormone. This can lead to a variety of health problems, including hypothyroidism, developmental delays, and cancer. Avoiding perchlorate can help to protect your health.

How it helps

A study of 2,095 participants associated high urinary perchlorate with decreased levels of hemoglobin and hematocrit among boys, men, women aged 15-49, and pregnant women, and decreased HDL cholesterol among men [R].

Perchlorate can negatively impact the thyroid, which plays a key role in regulating cholesterol and overall metabolism.

95

Bilberry

IMPACT 1 / 5

EVIDENCE 1 / 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

Bilberries are rich in antioxidants, especially anthocyanins, which can help to increase levels of HDL (good) cholesterol thus improving heart health. However, they should be part of a balanced diet and are not a standalone treatment for HDL cholesterol.

In a randomized crossover study with 80 overweight women, bilberries (100g/day) reduced **triglycerides in small HDL particles** in participants who had a metabolic profile that reflected higher cardiometabolic risk at baseline, but not in participants who had a lower-risk profile [R].

In a trial with 36 participants, frozen bilberries (150g, 3x/week for 6 weeks) reduced BMI in women but not men. Both groups experienced improvements in various blood markers including cholesterol, glucose, and liver enzymes. In men, there were additional positive changes in several markers, although LDL-C increased. Blood pressure, magnesium, and antiradical activity remained unchanged [R].

96

Chinese Rhubarb

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a supplement containing Chinese rhubarb extract, typically available in tablet or capsule form. The common dosage ranges from 500 to 1,000 mg per day, taken with water. It is advised to consult with a healthcare provider for the exact dosage based on individual health needs. Use this supplement daily for a period as recommended by the healthcare provider, usually not exceeding 8 weeks without medical advice.

TYPICAL STARTING DOSE

500 mg

Description

Chinese rhubarb is another traditional Chinese herbal remedy known for its potential to support digestive health and relieve constipation. It contains compounds that may have mild laxative effects.

Rhubarb (also named *Rhei* or *Dahuang*) is one of the most ancient herbs in traditional Chinese medicine. Rhubarb includes approximately 60 species of plants of the genus *Rheum L.* [R, R].

The rhubarb rhizome is considered a top medicinal plant in Chinese medicine. It is used for [R, R]:

- Constipation
- Kidney disease
- Herpes
- Gum disease

It may help due to its antibacterial and anti-inflammatory effects [R].

How it helps

A study administered prepared rhubarb and nifedipine to one group while the control group received only nifedipine. Monitoring various parameters, the study group showed significant reductions in triglycerides and LDL cholesterol levels, and an increase in HDL cholesterol [R].

Chinese rhubarb's components can lower HDL cholesterol by inhibiting cholesterol absorption and promoting its excretion.

Please note: *Be careful with rhubarb if you are prone to allergies. High doses of rhubarb may cause diarrhea and abdominal cramps. Avoid long-term use due to dependence risk. Rhubarb is not safe for people with gut conditions, women who are pregnant or breastfeeding, and children under 12 years of age. Make sure to consult your doctor before taking rhubarb* [R, R].

97

Vinyasa Yoga

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice vinyasa yoga for 60 minutes, three times per week. Choose a comfortable space and a time of day when you can be consistent with your practice, ideally in the morning or evening.

TYPICAL STARTING DOSE

1 hour

Description

Vinyasa yoga is a dynamic style of yoga that involves flowing through sequences of postures with synchronized breathing. It promotes flexibility, strength, and relaxation and is often used for stress relief and improving physical fitness.

How it helps

A single bout of vinyasa yoga increased HDL-C in a non-placebo-controlled trial of 30 experienced participants [R].

Vinyasa yoga facilitates physical activity, which helps burn off excess cholesterol and triglycerides. This may, in turn, raise HDL cholesterol.

98

Lactobacillus Casei

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a supplement containing Lactobacillus casei daily, with a dosage recommended by the product's manufacturer or a healthcare professional. The specific amount can vary, but it is commonly found in doses around 10 billion colony-forming units (CFUs). Continue this regimen for at least 4 weeks to observe potential health benefits.

TYPICAL STARTING DOSE

10 billion CFU

Description

Lactobacillus casei is a probiotic bacterium known for its potential to support gut health and immune function. It contributes to a balanced gut microbiome and may help alleviate digestive issues like diarrhea.

Lactobacillus casei is a probiotic bacterium found in fermented foods (e.g., cheese), as well as in the reproductive and gastrointestinal tracts of humans and other animals [R, R].

People mainly take *L. casei* to support a healthy gut microbiota [R].

How it helps

In a non-placebo-controlled of 34 children, consuming a beverage with *L. casei* Shirota for 6 months increased HDL by 11.1% [R].

L. casei may indirectly improve HDL cholesterol by promoting gut health and reducing inflammation.

99

Reduce Molybdenum Exposure

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

To reduce molybdenum exposure, avoid high molybdenum foods such as legumes, grains, and nuts, especially if they are grown in soil high in molybdenum. Also, consider using a water filter that specifically reduces molybdenum content if your water supply has high levels of this element.

Description

Reducing molybdenum exposure entails minimizing contact with molybdenum compounds commonly found in industrial settings. This can help prevent potential health issues associated with molybdenum toxicity, such as digestive problems and neurological symptoms.

How it helps

A study of 254 sanitation workers found that each unit increase in molybdenum levels increased the risk of abnormal systolic blood pressure by 120%, while decreasing HDL cholesterol and apolipoprotein A levels [R].

100

Lecithin

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 1-2 tablespoons (7-14 grams) of lecithin granules or powder daily, or as directed on the supplement label. You can mix it with food or juice to improve palatability. For lecithin capsules or softgels, follow the dosage recommendation on the product label, typically 1-2 capsules daily with meals.

TYPICAL STARTING DOSE

7 g

Description

Lecithin is a natural emulsifier often used as a dietary supplement. It may support liver health and cognitive function due to its choline content, which is a precursor to neurotransmitters and involved in fat metabolism.

How it helps

Lecithin, as a supplement, works by enhancing your body's HDL (good cholesterol) levels and lowering LDL (bad cholesterol) levels. By doing so, it helps in preventing arterial blockage, thus reducing the risk of heart disorders.

In a placebo-controlled trial of 25 postmenopausal women, supplementation with soy lecithin (20 g/day) for 4 weeks **increased HDL cholesterol** [R].

101

Omega-3 (Fish Oil)

IMPACT 1 / 5

EVIDENCE 1 / 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

Fish oil may raise HDL-cholesterol more in people with certain gene variants [R].

PERSONALIZED TO YOUR GENES

Fish oil may raise HDL-cholesterol more in people with your *CD36* gene variant [R].

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
CD36	**rs1761667**	AG	●●●○○

102

Bee Pollen and Royal Jelly

IMPACT 0 / 5

EVIDENCE 1 / 5

How to implement

Take a combined supplement of bee pollen and royal jelly daily, starting with a quarter teaspoon and gradually increasing up to 1-2 teaspoons per day, as per tolerance. It's best consumed in the morning with food to improve absorption and minimize potential stomach discomfort. Continue this regimen daily for at least two months to observe benefits.

Description

Bee pollen is a natural product collected by bees and is rich in vitamins, minerals, and antioxidants. It is believed to have various health benefits, including potential anti-inflammatory and immune-boosting properties.

Royal jelly is a nutrient-rich substance secreted by worker bees to feed bee larvae and the queen bee. Royal jelly contains protein B-vitamins, calcium and iron. It is taken as a supplement for it's potential energy-boosting and immune-supporting properties.

How it helps

A supplement with fermented pollen and royal jelly (Melbrosia, 1-2 capsules/day for 12 weeks) increased HDL cholesterol in an uncontrolled trial of 60 postmenopausal women [R].

103

Evening Primrose Oil

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 500mg to 1000mg of evening primrose oil, in capsule form, once daily with a meal to ensure optimal absorption. This regimen is typically recommended for several months to evaluate its effectiveness for the specific condition being addressed.

Description

Evening primrose is a plant known for its seeds, which are a source of gamma-linolenic acid (GLA), an essential fatty acid. Some studies suggest that evening primrose oil, derived from these seeds, may help alleviate symptoms of conditions like premenstrual syndrome (PMS) and eczema, as well as support overall skin health.

Evening primrose (*Oenothera biennis*) is a flowering plant. Its name comes from the fact that its flowers close during the day and open when the sun sets [R].

Evening primrose oil comes from the plant's seeds. It is rich in omega-6 fatty acids like GLA. People use this oil to help with high triglycerides [R, R].

How it helps

Please note: *There is no evidence from controlled clinical trials to support this recommendation. It is included based on uncontrolled clinical trials, animal or cell studies, or non-scientific criteria. Please take this recommendation with a grain of salt until more research is available.*

Exogenous GLA supplementation for 3 months raised dihomo-gamma-linolenic acid in plasma ($p < 0.002$), moderately in erythrocyte lipids. This reduced cardiovascular risk factors and stabilized renal function, increasing vasodilatory prostaglandins [R].

A study examined the effects of omega-6 fatty acids (linoleic and GLA) on 12 hyperlipidemic patients and 12 rats for 4 months. In humans, GLA reduced triglycerides by 48% and increased HDL by 22% [R].

104

Almonds

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate a handful of almonds (about 23 kernels) into your daily diet. You can eat them as a snack, add them to your breakfast cereals or yogurt, or include them in salads and other dishes. Do this consistently for ongoing health benefits.

Description

Almonds are a good source of omega-6s, protein and vitamins, making for a great snack food. A 1-ounce serving provides 3700 mg of omega-6.

Almonds are nutritious tree nuts that originate from the Prunus dulcis tree. They are packed with essential nutrients, including healthy fats, fiber, vitamin E, and magnesium, which collectively contribute to heart health, support weight management, and may help regulate blood sugar levels.

How it helps

Almonds are high in monounsaturated fats and fiber, both of which have been shown to help increase high-density lipoprotein (HDL) cholesterol levels.

105

Punicalagin

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take punicalagin as a supplement in the form of capsules or powder. Typically, the dosage ranges from 300 mg to 600 mg daily, divided into two doses taken with meals. Continue this regimen daily for at least one month to assess its effects.

TYPICAL STARTING DOSE

300 mg

Description

Punicalagin is a natural compound found in pomegranates and is known for its potent antioxidant properties. It is one of the primary compounds responsible for pomegranate's health benefits. Consuming punicalagin-rich foods or supplements may help protect cells from oxidative stress and inflammation.

How it helps

Punicalagin, found in pomegranate juice, has been known to increase levels of HDL (good) cholesterol. This helps in removing bad cholesterol from your body, thus maintaining a healthy balance and reducing the risk of heart diseases.

In a 20-week placebo-controlled trial with 84 subjects, supplementation of hydroxytyrosol (9.9 mg) and punicalagin (195 mg) significantly reduced LDL cholesterol, oxidized LDL, triglycerides, systolic and diastolic blood pressure, increased HDL cholesterol in all, and FMD in those with endothelial dysfunction. In an 11-day placebo-controlled trial with 36 participants, hydroxytyrosol supplementation (50-100 mg/day) lowered triglyceride levels by up to 21.64% [R, R, R].

This study evaluated the effect of an oral supplement containing HT and PC (SAx) on dyslipidemia in an adult population. A randomized, double-blind, controlled, crossover trial was conducted over a 20-week period. SAx significantly reduced TG and LDL and increased HDL [R].

In a 20-week randomized, double-blinded, placebo-controlled, crossover trial, a supplement (SAx) containing 9.9 mg of HT and 195 mg of PC showed significant improvements in endothelial function, as measured by flow-mediated dilatation (FMD), compared to placebo. SAx also reduced oxLDL levels in subjects with higher baseline levels, and decreased blood pressure in individuals with prehypertension and hypertension [R].

A study was divided into three groups receiving different doses of SOFE (olive fruit extract) or a placebo. Group 2 (500 mg SOFE) showed the most significant reduction in CAVI scores and increased energy intensity. Triglyceride levels notably dropped in Group 2 [R].

106

Extra Virgin Olive Oil (EVOO)

IMPACT 0 / 5

EVIDENCE 0 / 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

Extra virgin olive oil contains heart-healthy monounsaturated fats which can increase the levels of HDL cholesterol in your blood.

107

Nattokinase

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 100-200mg of nattokinase supplement daily, preferably on an empty stomach to enhance absorption. This dosage can be taken continuously, but it is important to consult with a healthcare professional before starting, especially if taking blood-thinning medications.

Description

Nattokinase is an enzyme derived from natto (fermented soybean) and is believed to have potential blood-thinning properties, potentially supporting cardiovascular health by promoting healthy blood circulation.

How it helps

In a 6-month placebo-controlled trial of 47 patients with hyperlipidemia, the combination of nattokinase (50 mg, 4x/day) and red yeast rice (300 mg, 4x/day), but not nattokinase alone, lowered triglycerides (by 15%), TC (by 25%), LDL-C (by 41%), and TC/HDL-C ratio (by 29.5%), while increasing HDL-C (by 7.5%) [R].

108

Paleo Diet

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Adopt a diet that includes lean meats, fish, fruits, vegetables, nuts, and seeds, resembling the diet of our hunter-gatherer ancestors. Exclude all dairy products, legumes, grains, added sugar, and processed foods. This should be a consistent dietary approach, not a short-term diet, to observe its benefits on health and well-being.

Description

The paleo diet, also known as the caveman diet, emphasizes whole foods such as lean meats, fish, fruits, vegetables, nuts, and seeds while excluding processed foods, grains, and dairy. It is believed to support weight management and reduce the risk of chronic diseases by focusing on foods more in line with our ancestors' diets.

How it helps

The Paleo Diet emphasizes lean proteins, fruits, vegetables and healthy fats, which may help increase HDL ("good") cholesterol levels. Reduction of processed and sugary foods, as encouraged in the Paleo Diet, can also decrease LDL ("bad") cholesterol, improving your overall cholesterol balance.

109

Chia Seeds

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate 1 to 2 tablespoons of chia seeds into your daily diet. You can add them to yogurt, smoothies, oatmeal, or salads. Do this regularly as part of your daily meals.

Description

Chia seeds are high in fiber, omega-3 fatty acids, and various vitamins and minerals. Adding chia seeds to your diet can support digestive health, provide essential nutrients, and contribute to overall nutritional wellness.

Chia seeds are a healthy source of omega-3s, calcium, as well as fiber, iron, magnesium phosphorus, and vitamins B1 and B3. A 1-ounce serving provides 5.06 g of ALA.

How it helps

Chia seeds are rich in omega-3 fatty acids which can boost HDL cholesterol, improving the ratio of HDL to low-density lipoprotein (LDL) cholesterol.

110

Coenzyme Q10 (CoQ10)

IMPACT 0 / 5

EVIDENCE 0 / 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

Coenzyme Q10 (CoQ10) supports energy production in cells, which can help improve the function of the heart and increase beneficial HDL cholesterol levels. It also acts as an antioxidant, neutralising harmful free radicals that can damage your body's cells and contribute to heart disease.

111

Regular Sleep Schedule

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Go to bed and wake up at the same time every day, even on weekends and holidays. This helps regulate your body's internal clock, leading to better sleep quality. Aim for 7-9 hours of sleep per night.

Description

Maintaining a regular sleep schedule involves going to bed and waking up at consistent times each day. This practice helps regulate the body's internal clock and promotes better sleep quality, mood, and cognitive function.

How it helps

Consistent sleep patterns contribute to metabolic balance and might impact cholesterol levels positively.

112

Aquatic Exercise

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Participate in aquatic exercise sessions, such as swimming or water aerobics, for 60 minutes, 3 to 5 times per week. Ensure the exercise intensity is moderate, allowing you to talk but not sing during the activity. Consistency over time is key, so aim to incorporate this into your weekly routine for at least 3 to 6 months to observe benefits.

TYPICAL STARTING DOSE

1 hour

Description

Aquatic exercise involves physical activity performed in water, such as swimming, water aerobics, or aquatic therapy. It is gentle on the joints, making it suitable for individuals with mobility issues, and can help improve cardiovascular fitness and muscle strength.

Aquatic exercise is any type of low-impact physical activity performed in a pool. In this type of cardio exercise, water helps the body float, which reduces gravity and makes the practice more comfortable and tolerable [R, R].

Compared to land-based exercise, aquatic exercise may be better by [R]:

- Reducing the stress and impact on joints
- Lowering fracture risk

Hence, it is usually **recommended for the elderly**. Aquatic exercise is also suitable for people who don't know how to swim [R].

How it helps

Aquatic exercises can boost heart health and lower HDL ("bad") cholesterol by promoting weight loss and improving cardiovascular fitness. Regular physical activity like swimming helps to raise 'good' cholesterol levels and lower 'bad' cholesterol, reducing the risk of heart disease.

113

Dietary Folate

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Increase your intake of folate-rich foods such as leafy green vegetables, fruits, nuts, and legumes. Aim to consume these foods daily, incorporating them into various meals throughout the day to meet the recommended dietary allowance of 400 micrograms for adults.

Description

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

- Making DNA
- Metabolism
- Energy production

Rich sources of folate include [R, R]:

- Beef liver
- Spinach
- Black-eyed peas
- Asparagus
- Citrus fruits

While folate deficiency is rare, it can happen in people who don't eat enough fruits and vegetables. Alcoholics and lactating women may also be at increased risk [R].

Adults should get **400 micrograms (mcg)** of folate per day. Pregnant or breastfeeding women should get **500-600 mcg per day**. Supplements are usually in the form of *folic acid* or L-methylfolate (5-MTHF) [R, R].

How it helps

Dietary folate helps lower levels of homocysteine, an amino acid linked to a higher risk of heart disease due to its potential to damage blood vessels. Therefore, by reducing homocysteine, folate can help maintain healthier HDL cholesterol levels and prevent heart conditions.

Genetically higher folate levels may be associated with increased (MR):

- HDL Cholesterol. [R]

An increasing number of folate-increasing alleles was associated with increased high-density lipoprotein (HDL) cholesterol concentrations (β coefficient (95% CI, P-value) for regression of log-transformed HDL on the weighted GRSs, 0.081 (0.015, 0.148), P=0.017), but not with blood pressure, triglyceride, and low-density lipoprotein and total cholesterol levels.

Please note: *There is no evidence from controlled clinical trials to support this recommendation. It is included based on uncontrolled clinical trials, animal or cell studies, or non-scientific criteria. Please take this recommendation with a grain of salt until more research is available.*

114

Walking

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate at least 30 minutes of brisk walking into your daily routine, aiming for a minimum of five days a week. This can be done in one continuous session or broken into shorter periods, such as three 10-minute walks throughout the day.

TYPICAL STARTING DOSE

30 minutes

Description

Walking is a low-impact form of exercise that can contribute to cardiovascular fitness, weight management, and improved overall health. It is used to support physical activity goals, enhance mood, and promote better cardiovascular health.

How it helps

Walking is a low-impact exercise that promotes cardiovascular health, potentially boosting HDL levels.

115

Low-Intensity Exercise

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate 60 minutes of low-intensity activities, such as walking or gentle yoga, into your daily routine. Aim to do this 5 days a week to achieve the best results.

TYPICAL STARTING DOSE

1 hour

Description

Low-intensity exercise, such as walking or gentle yoga, provides numerous health benefits, including improved cardiovascular health, stress reduction, and enhanced overall fitness without the strain of high-intensity workouts.

How it helps

Low intensity exercises contribute to overall cardiovascular health and regulation of lipids, including HDL.

116

Maintain Optimal Vitamin D Levels

IMPACT 0 / 5

EVIDENCE 0 / 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

In a trial of 70 women with gestational diabetes at 24-28 weeks of pregnancy, supplementation with vitamin D (500-1000 IU/day) and calcium (500-1000 mg/day) for 6 weeks decreased fasting glucose. The highest dose also lowered fasting serum insulin, LDL, and total cholesterol while increasing HDL [R].

117

Strength Training

IMPACT 0 / 5

EVIDENCE 0 / 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

Strength training helps increase your body's High-Density Lipoprotein (HDL) or "good cholesterol" levels, which removes harmful cholesterol from your system. Regular strength training exercises, therefore, can lower your risk of cholesterol-associated diseases by keeping your cholesterol levels balanced.

118

Tai Chi

IMPACT 0 / 5

EVIDENCE 0 / 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

Tai Chi can improve cardiovascular fitness and reduce stress levels, thus assisting in the regulation of HDL cholesterol. It aids the processing and removal of LDL cholesterol ("bad cholesterol"), encouraging higher levels of HDL cholesterol ("good cholesterol").

119

Coconut Oil

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate 1-2 tablespoons of virgin coconut oil into your daily diet. You can use it as a cooking oil, add it to smoothies, or use it as a dairy butter substitute on toast. Consistent daily use over weeks to months is suggested for best results.

Description

Coconut flakes and coconut oil are derived from coconut, a versatile fruit that provides healthy fats and dietary fiber. Coconut oil, in particular, is known for its potential antimicrobial properties and as a source of healthy fats when used in moderation.

How it helps

Coconut oil contains types of fats that can increase HDL (good) cholesterol levels in your body. This helps in improving heart health by reducing the ratio of bad to good cholesterol.

120

Morning Sunlight Exposure

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Expose yourself to natural sunlight for at least 20 to 30 minutes immediately after waking up. Try to do this consistently every day to help regulate your body's internal clock.

TYPICAL STARTING DOSE

30 minutes

Description

Exposure to natural morning light can help regulate circadian rhythms, improve mood, and enhance wakefulness, as it signals the body to produce serotonin, a hormone associated with well-being and alertness.

How it helps

Exposure to morning light may favorably influence cholesterol levels because it helps to set our "body clock" which regulates all bodily functions, including how we metabolize cholesterol. Sunlight also plays a role in the synthesis of vitamin D, which may help regulate HDL ("Good") cholesterol.

In a systematic review of 39 observational studies with 377,797 subjects, evening-oriented individuals had higher blood glucose, glycated hemoglobin, LDL cholesterol, and triglycerides. They also had an increased risk of diabetes, cancer, and depression [R].

A meta-analysis of 27 studies found that individuals with evening chronotype had higher BMI, fasting blood glucose, and total cholesterol levels, as well as lower HDL-C levels compared to morning chronotype individuals [R].

121

Avoid Rapid Weight Changes

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Maintain a consistent, healthy weight by avoiding extreme dieting or sudden increases in food intake. Aim for gradual weight changes, not exceeding 1-2 pounds per week, by adjusting your diet and physical activity levels accordingly. This approach should be sustained over a long-term period to ensure health and prevent potential adverse effects on the body.

Description

Avoiding extreme and rapid weight changes, whether through crash diets or excessive calorie restriction, is essential for preventing negative health consequences such as nutritional deficiencies and metabolic disruptions.

Your weight is determined by the number of calories you consume compared to those you burn. Changes in exercise frequency, amount and type of food consumed, and alcohol intake may alter your energy expenditure. This may cause small weight fluctuations [R].

Some people may gain or lose weight at a faster rate. Rapid weight fluctuations may be due to [R, R]:

- Very drastic diets
- Water retention or dehydration
- Hormonal changes
- Pregnancy
- Taking certain medications
- Certain health conditions

How it helps

Stable weight maintenance is key in keeping a healthy lipid profile, including HDL cholesterol levels.

122

Hibiscus

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 250 mg of hibiscus supplement daily, either in the form of a capsule or powder. It can be taken at any time of day, with or without food.

TYPICAL STARTING DOSE

250 mg

Description

Hibiscus is a flower known for its potential to lower blood pressure, boost antioxidant levels, and support heart health. Consuming hibiscus tea or incorporating hibiscus into your diet may provide these health benefits.

Hibiscus (*Hibiscus sabdariffa*), also known as roselle or sorrel, is a flowering plant. It is traditionally brewed as a tea of a distinctive, bright pink color [R, R].

For hundreds of years, people from all over the world have taken hibiscus for its potential health benefits [R, R, R].

Please note: *Hibiscus can interact with "water pills" (diuretics) like hydrochlorothiazide. If you are using "water pills", consult your doctor before taking hibiscus.*

How it helps

Hibiscus is packed with antioxidants that help to lower levels of "bad" LDL cholesterol and raise "good" HDL cholesterol hence balancing the cholesterol levels. This could reduce cardiovascular disease risk and promote a healthier heart.

123

Zumba

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Participate in a Zumba class at least 3 times per week for a duration of one hour each session. Choose a class appropriate for your fitness level to ensure safety and effectiveness.

TYPICAL STARTING DOSE

1 hour

Description

Zumba is a fitness program that combines dance and aerobic movements set to energetic music. It's popular for its potential to improve cardiovascular fitness, coordination, and overall physical health through a fun and engaging workout.

How it helps

Zumba provides a cardiovascular workout, which is beneficial in maintaining and improving HDL cholesterol.

124

Tomato

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate fresh or cooked tomatoes into your daily diet. This can be achieved by adding them to salads, sandwiches, pastas, and sauces or simply eating them on their own. Aim for at least one serving (approximately 1 medium-sized tomato or 1/2 cup of chopped or cooked tomatoes) per day.

Description

Tomatoes are a fruit grown widely in numerous varieties, and are rich in vitamins C and K, as well as the antioxidant lycopene, which may contribute to heart health and protect against certain chronic diseases when incorporated into a balanced diet.

Tomato (*Solanum lycopersicum*) is a fruit originally from the Andes in South America. It is usually consumed as a vegetable in juices, sauces, or fresh. Tomate is an important source of [R]:

- Vitamin C
- Potassium
- Antioxidants (e.g., lycopene)
- Vitamin B9 (folate)

Tomato is traditionally used for [R, R]:

- High cholesterol
- High blood pressure

How it helps

Tomatoes are rich in lycopene, a potent antioxidant, which helps to increase HDL (good cholesterol) levels in the body, thus protecting against heart disease. Furthermore, nutrients in tomatoes can help prevent oxidation of LDL (bad cholesterol), which can lead to plaque build-up in the arteries.

125

Gamma-Linolenic Acid (GLA)

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 200-300 mg of gamma-linolenic acid (GLA) daily as a supplement, usually available as capsules, for a period of 6 months to assess its effects on your condition. It is best absorbed when taken with food.

TYPICAL STARTING DOSE

200 mg

Description

GLA is an omega-6 fatty acid found in certain plant oils, such as evening primrose oil and borage oil. It may have anti-inflammatory properties and can potentially benefit skin health, hormonal balance, and overall well-being.

Your body naturally makes **gamma-linolenic acid (GLA)** to help control inflammation. It’s a polyunsaturated fatty acid (PUFA) found in plants like [R, R]:

- Borage
- Blackcurrant
- Evening primrose

People mainly use GLA for [R]:

- Skin conditions
- Dry eyes
- Hair and nail care

How it helps

Gamma-Linolenic Acid (GLA) can boost HDL cholesterol, commonly known as the "good cholesterol". Higher HDL cholesterol levels lead to less harmful cholesterol being left in your blood, reducing your risk of heart disease.

Please note: *There is no evidence from controlled clinical trials to support this recommendation. It is included based on uncontrolled clinical trials, animal or cell studies, or non-scientific criteria. Please take this recommendation with a grain of salt until more research is available.*

Exogenous GLA supplementation for 3 months raised dihomo-gamma-linolenic acid in plasma ($p < 0.002$), moderately in erythrocyte lipids. This reduced cardiovascular risk factors and stabilized renal function, increasing vasodilatory prostaglandins [R].

A study examined the effects of omega-6 fatty acids (linoleic and GLA) on 12 hyperlipidemic patients and 12 rats for 4 months. In humans, GLA reduced triglycerides by 48% and increased HDL by 22% [R].

126

Krill Oil

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 1 to 3 grams of krill oil daily as a dietary supplement, preferably with a meal to enhance absorption. It's often available in soft gel form, making it easy to swallow. Continue this regimen consistently for best results, typically reviewing its effectiveness and any need for adjustments with a healthcare provider after a few months.

TYPICAL STARTING DOSE

1 g

Description

Krill oil is a source of omega-3 fatty acids, primarily in the form of phospholipids. It can promote cardiovascular health, joint comfort, and may have anti-inflammatory properties.

How it helps

Krill oil is rich in omega-3 fatty acids, which help raise your HDL "good" cholesterol levels. By increasing HDL, krill oil helps remove harmful cholesterol from your bloodstream, thus improving your overall cholesterol profile.

127

Avocado

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate half to one whole avocado into your daily diet. You can add it to salads, sandwiches, or use it as a healthy fat substitute for spreads or dressings.

Description

Avocado is a nutrient-dense fruit known for its creamy texture and healthy monounsaturated fats. It is packed with vitamins, minerals, and dietary fiber, and may support heart health, skin health, and overall nutrition.

Avocado is a fruit first cultivated in Mexico in 500 BCE [R, R].

You can eat it raw in salads, sandwiches, and dips. Avocado oil has recently become popular, but it's much less nutritious than the whole fruit.

Avocado is rich in antioxidants, vitamins, minerals, and fiber. It may support [R]:

- Heart health
- Healthy weight
- Healthy aging

How it helps

Avocados are rich in monounsaturated fats that can help raise your HDL (good) cholesterol levels, improving heart health. They also contain fiber which can help reduce LDL (bad) cholesterol levels.

128

Practice Exercise Snacks

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Integrate short bursts of physical activity, each lasting about 1 to 2 minutes, into your daily routine at least two to three times a day. These 'exercise snacks' can include activities like doing a set of stairs, rapid bodyweight exercises, pull-ups, push-ups, sit-ups, or brisk walking.

TYPICAL STARTING DOSE

1 minutesute

Description

Staying physically active is essential for maintaining overall health and well-being. **Exercise snacks** are brief, frequent bursts of physical activity integrated into daily routines, helping combat the health risks associated with prolonged sitting and sedentary behavior, such as obesity and cardiovascular issues. Examples include taking the stairs or doing quick exercises during work breaks.

Staying active can do wonders for your health. It can help you lose weight, improve your heart health, boost your mood, and more [R].

Exercise snacks are short, quick bursts of physical activity performed throughout the day, designed to break up prolonged periods of sitting or inactivity. These brief bouts of exercise can be as short as a few minutes and are incorporated into daily routines to boost overall physical activity levels.

Exercise snacks are crucial for health because they combat the negative effects of sedentary behavior, such as prolonged sitting, which is associated with an increased risk of obesity, cardiovascular diseases, diabetes, and musculoskeletal issues. They help improve blood circulation, regulate blood sugar levels, and enhance mood and cognitive function.

Examples of exercise snacks include taking the stairs instead of the elevator, doing a few minutes of bodyweight exercises (e.g., squats or push-ups) during work breaks, or walking briskly for a few minutes after meals. These short, frequent bursts of activity contribute to a more active lifestyle and can significantly benefit overall health by reducing the risks associated with excessive sitting.

How it helps

Staying active through regular exercise is proven to improve HDL cholesterol levels.

129

Hydroxytyrosol

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take a hydroxytyrosol supplement at a dose of 5 to 10 mg per day, with or without food. This supplement should be taken daily for at least 8 to 12 weeks to observe potential health benefits.

TYPICAL STARTING DOSE

5 mg

Description

Hydroxytyrosol is a natural phenolic compound found in extra virgin olive oil. It is known for its antioxidant properties and may contribute to the health benefits associated with the Mediterranean diet.

How it helps

In a 20-week placebo-controlled trial with 84 subjects, supplementation of hydroxytyrosol (9.9 mg) and punicalagin (195 mg) significantly reduced LDL cholesterol, oxidized LDL, triglycerides, systolic and diastolic blood pressure, increased HDL cholesterol in all, and FMD in those with endothelial dysfunction. In an 11-day placebo-controlled trial with 36 participants, hydroxytyrosol supplementation (50-100 mg/day) lowered triglyceride levels by up to 21.64% [R, R, R].

130

Fenugreek

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take a 500 mg fenugreek supplement daily, preferably with a meal to aid in digestion and absorption.

TYPICAL STARTING DOSE

500 mg

Description

Fenugreek is an herb and spice commonly used in traditional medicine for its potential to support digestive health, regulate blood sugar levels, and promote lactation in nursing mothers. Its compounds, such as soluble fiber and fenugreek seeds, contribute to its various health benefits.

Fenugreek is a leafy green legume originating from central Asia. Its leaves and seeds are both used in cooking. Some people also use the seeds to make tea [R, R].

People use fenugreek tea or supplements for [R, R, R, R]:

- Reproductive health
- Blood sugar control
- Decreasing cholesterol

How it helps

Fenugreek seeds contain a type of soluble fiber known as galactomannan, which can help lower cholesterol levels. It works by binding to cholesterol in your gut and preventing it from being absorbed into the bloodstream.

131

Sleep for 7+ Hours

IMPACT 0 / 5

EVIDENCE 0 / 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

Good quality sleep is associated with better metabolic health and might influence HDL cholesterol.

132

Pistachios

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate a handful of pistachios (about 1-2 ounces) into your daily diet. You can add them to your breakfast cereals, salads, or simply snack on them throughout the day. Do this regularly for ongoing heart health benefits and to aid in maintaining a balanced diet.

Description

Pistachios are a type of nut native to Asia but grown extensively in the Mediterranean. They are packed with healthy fats, fiber, protein, and various vitamins and minerals, like vitamins C, B6, and E, as well as potassium, copper, and iron. They are also rich in antioxidant and anti-inflammatory compounds, which can help lower cholesterol levels and support weight management.

The pistachio (*Pistacia vera L*), known as **the “green nut"**, is a nut native to Asia but widely cultivated in the Mediterranean. Pistachios have **low fat content** and high levels of [R, R, R]:

- Unsaturated fats
- Vitamins (C, B6, E, K, thiamin)
- Minerals (Potassium, copper, iron, and magnesium)

Pistachios also have a high **antioxidant and anti-inflammatory** effect [R].

How it helps

Pistachios are high in monounsaturated fats, which can increase your HDL (good) cholesterol levels. Higher levels of HDL cholesterol help to remove LDL (bad) cholesterol from your bloodstream, reducing your risk of heart disease.

133

Thyme

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take thyme supplements in the form of capsules or pills, following the dosage instructions on the product label, usually once or twice a day with meals. It is important to consult with a healthcare provider before starting any new supplement regimen.

Description

Thyme is an aromatic herb used in cooking and herbal remedies. It contains essential oils and antioxidants and is known for its potential antibacterial and anti-inflammatory properties, supporting respiratory health.

How it helps

Taking virgin olive oil enriched with thyme polyphenols (25 mL/day) for 3 weeks decreased the LDL:HDL and small HDL:large HDL ratios while increasing HDL antioxidants and functionality in a placebo-controlled trial of 33 patients with hypercholesterolemia [R, R, R, R, R, R, R, R, R, R].

134

Psyllium

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 5 grams of psyllium husk powder with at least 8 ounces of water. Do this once daily, preferably in the morning before breakfast. Continue this regimen daily for ongoing digestive health benefits.

TYPICAL STARTING DOSE

5 g

Description

Psyllium is a plant-based dietary fiber derived from the seeds of the Plantago ovata plant. It is primarily used both traditionally and today, as a dietary supplement due to its high soluble fiber content, aiding in digestive health and regulating bowel movements. The main compounds in psyllium are soluble fiber and mucilage.

Psyllium husk might be beneficial for gut health and heart health. But what exactly is this supplement and how does it work?

Psyllium is an herb that grows around the world. Its “husk,” the outer coating of the psyllium seed, is full of fiber. The health benefits of psyllium husk are due to this fiber.

How it helps

Psyllium is a soluble fiber that can reduce the absorption of cholesterol in the intestines, leading to increased HDL cholesterol levels and improved overall cholesterol profiles.

135

Swimming

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate swimming into your routine for at least 30 minutes, 3 times a week. Choose a pace and stroke that keeps your heart rate elevated yet allows you to breathe comfortably. Continue this practice regularly for long-term health benefits.

TYPICAL STARTING DOSE

30 minutes

Description

Swimming is a whole-body workout that engages various muscle groups, promoting strength and endurance. It helps keep the heart and lungs healthy, improves flexibility, and can even help reduce stress. Regular swimming is a great way to maintain a balanced, fit, and healthy lifestyle.

How it helps

Swimming is an effective cardiovascular workout that can aid in raising HDL cholesterol.

136

American Ginseng

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 200-400 mg of American ginseng extract daily, preferably with a meal to enhance absorption. This regimen can be followed continuously for up to 12 weeks, after which a break or reassessment of the need to continue should be considered.

TYPICAL STARTING DOSE

200 mg

Description

American ginseng is a perennial herb native to North America, particularly regions of the United States and Canada. It is valued for its potential health benefits, including immune system support, stress reduction, and enhanced cognitive function, with the primary active compounds being ginsenosides.

Ginseng is a plant people use to improve [R, R, R, R]:

- Sexual function
- Immunity
- Fatigue
- Attention

There are many different types of ginseng. The most common ones are [R, R, R]:

- Korean red ginseng, also called Asian ginseng (*Panax ginseng*)
- American ginseng (*Panax quinquefolius*)
- Chinese notoginseng, also called Sanchi (*Panax notoginseng*)

How it helps

American Ginseng may positively influence HDL cholesterol by helping to increase its levels. Higher HDL ("good" cholesterol) contributes to the removal of bad cholesterol, thereby helping minimize risk for heart disease.

137

Basketball

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Engage in playing basketball for at least 30 minutes to an hour, three to four times a week. Ensure to warm up with stretches or light jogging for 5-10 minutes before playing to reduce the risk of injury.

TYPICAL STARTING DOSE

30 minutes

Description

Playing basketball is a fun and active way to improve cardiovascular fitness, coordination, and teamwork skills. It promotes physical fitness and can be an enjoyable form of exercise.

How it helps

Playing basketball involves cardiovascular exercise, which is known to help raise HDL cholesterol.

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.

Apolipoprotein A1	119.5 mg/dL	128 – 190	9 Nov 2025
DHEA Sulfate	303 mcg/dL	70 – 200 – 464 – 650	9 Nov 2025
Non-HDL Cholesterol	140 mg/dL	0 – 130	9 Nov 2025
HDL Cholesterol	42 mg/dL	40 – 90	9 Nov 2025
Lipoprotein(a)	85.6 mg/dL	0 – 30 – 50	9 Nov 2025
Insulin, Fasting	9.08 uU/mL	1 – 6 – 19.6 – 25	9 Nov 2025
Testosterone, Total	1500 ng/dL	150 – 300 – 916 – 1000	9 Nov 2025
Cholesterol, Total	182 mg/dL	0 – 200 – 240	9 Nov 2025