

Total Cholesterol

DNA Health Report

REPORT CATEGORY —



HEART & BLOOD
VESSELS

Sample Client

Report date: 15 January 2026

Powered by

 omicsege

Table of Contents

03 How this works

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

07 Introduction

08 Your genetics

10 Your recommendations

189 Next Steps

- 189 Your Lab Results

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.

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

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



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:



Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):



Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

- 5 / 5
- Recommendations that are considered effective and generally recommended by experts and medical bodies.
-
- 4 / 5
- Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.
-
- 3 / 5
- Recommendations that are considered possibly effective and have many studies supporting them
-
- 2 / 5
- Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.
-
- 1 / 5
- Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.
-
- 0 / 5
- No evidence in humans.

Genotype-specific Evidence

- High-quality
- Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, a few large clinical trials, or a meta-analysis).
- Medium-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).
- Low-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).
- Indirect
- A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).
- In theory
- A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

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 combined with proteins into 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 [\[R\]](#), [\[R\]](#).

High Total Cholesterol

If your doctor has ever told you that you have high cholesterol, they were either referring to [\[R\]](#):

- LDL cholesterol
- Total cholesterol (LDL, HDL, and VLDL)

Some risk factors for high cholesterol include [\[R\]](#), [\[R\]](#):

- A diet high in saturated fat
- Obesity
- Lack of exercise
- Older age
- **Genetics**

If your cholesterol levels rise, your doctor will recommend strategies for lowering them. These may include [\[R\]](#):

- A diet low in saturated fat (such as the Mediterranean diet)
- Exercise
- Losing excess weight
- Cholesterol-lowering medication

How well you respond to these strategies may, in part, depend on your genes.

Up to 65% of differences in cholesterol levels may be attributed to genetics. Genes that may contribute to high cholesterol influence [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

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



TYPICAL LEVELS

Predisposed to typical cholesterol levels based on 1,290,924 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
APOE	rs7412	CC
PCSK9	rs11591147	GG
CETP	rs708272	AA
SIDT2	rs651821	TT
SLC16A11	rs186021206	GG
SMARCA4	rs142158911	GG
DNAJB14	rs140280172	CC
CETP	rs5882	AG
MINK1	rs79202680	GG
SORT1	rs12740374	GG
HNF4A	rs1800961	CC
APOB	rs562338	GG
FLT3	rs76428106	TT
PPP1R3B	rs9987289	GG
KIF13B	rs117139027	GG
ABO	rs2519093	TT
ABCA1	rs2740488	AA
CD300LG	rs72836561	CC
NLRC5	rs56156922	CC
SEZ6	rs72817635	CC
SLC39A8	rs13107325	CC
GATA6	rs79120103	AA
LCAT	rs4986970	AA
HMGCR	rs12916	CT

GENE	SNP	GENOTYPE
APOH	rs149394327	CG
HAVCR2	rs12657266	CT
IRF2BP2	rs508293	AG
APOE	rs429358	TT
LPL	rs328	CC
PCSK7	rs662799	AA
PCSK7	rs5128	CC
MICB	rs361525	GG
IL6	rs1800795	GG
FABP2	rs1799883	CC
LIPG	rs77960347	AA
SNX8	rs144787122	AA
/	rs145030841	CC
ABCA6	rs77542162	AA
MAFB	rs1883711	GG
FGB	rs6054	CC
SLC33A1	rs76440173	CC
LPA	rs55730499	CC
ADAM10	rs1800588	CC
SGMS1	rs80276949	GG
HP	rs34042070	CC
HLA-DQA2	rs6689	AA
NPC1L1	rs10260606	GG

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

Your Recommendations

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You’ll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

		DOSAGE			DOSAGE
1	Choose Healthy Fats		2	Limit Saturated Fat	
3	Red Yeast Rice	500 mg	4	Eat Fiber-Rich Foods	
5	Probiotics	10 billion	6	Tomato	
7	Bergamot		8	Exercise At Least One Hour a Day	1 hour
9	Garlic		10	Aerobic Exercise (Cardio)	1 hour
11	Lactobacillus Acidophilus	10 billion CFU	12	Gymnema	200 mg
13	Goji Berries		14	Sea Buckthorn	
15	Pantethine	600 mg	16	Spirulina	500 mg
17	Barberry	500 mg	18	Taurine	500 mg
19	Amla		20	Cumin	500 mg
21	Black Seed (Black Cumin)	1000 mg	22	Green Coffee Extract	400 mg
23	Artichoke Leaf Extract	500 mg	24	Walking	30 minutes
25	Paleo Diet		26	Glucomannan	3 g
27	Vitamin C	500 mg	28	Niacin Supplements	20 mg
29	Rice Bran Oil		30	Alpha-Lipoic Acid	100 mg
31	Berberine	500 mg	32	Probiotic Yogurt	

33	Lycopene	10 mg	34	Xylo-oligosaccharides	2 g
35	Chickpeas		36	Soy Isoflavones	40 mg
37	Mediterranean Diet		38	Resistant Starch	40 g Hi-Maize
39	Chitosan	500 mg	40	Blueberries	
41	Genistein	30 mg	42	Red Clover	40 mg
43	Ginger	500 mg	44	Resveratrol	150 mg
45	Yoga	30 minutes	46	Avocado	
47	L-Carnitine	500 mg	48	Cinnamon	500 mg
49	Broccoli Sprouts	2 tbsp	50	Macadamia Nuts	
51	Avoid Betaine (TMG) Supplements		52	Inositol	2 g
53	Lemon Balm	500 mg	54	Strawberries	
55	Fasting Mimicking Diet		56	Myo-inositol	4 g
57	Jujube	250 mg	58	Sunflower Seeds	
59	Kimchi		60	Hibiscus	250 mg
61	Pecans		62	Astaxanthin	12 mg
63	Mulberry		64	Apple Cider Vinegar	
65	Biotin And Chromium Picolinate		66	Broccoli	
67	Vitamin D and Calcium		68	Grapes	
69	Honey		70	Orange Juice	
71	Avoid Lead Exposure		72	Prunes	

73	Tocotrienols	100 mg	74	Plums	
75	Garlic Supplement	200 mg	76	Whole-Body Cryotherapy	2 minutes
77	Coenzyme Q10 (CoQ10)	100 mg	78	Intermittent Fasting	
79	Saffron	20 mg	80	Perilla Oil	600 mg
81	Grapefruit Pectin	5 g	82	Pilates	30 minutes
83	Celery Seed	600 mg	84	Brewer's Yeast	
85	Theaflavins		86	Black Raspberry Extract	300 mg
87	Tyrosol	10 mg	88	Olive Leaf Extract	500 mg
89	Bilberry		90	Baicalin	50 mg
91	Avoid Mercury Exposure		92	Mastic Gum	350 mg
93	Apples		94	Lutein	
95	Avoid Cadmium Exposure		96	Colostrum	20 g
97	Ubiquinol	100 mg	98	Lactobacillus Paracasei	10 billion CFU
99	Guava		100	Gamma-Oryzanol	
101	Coffee Cherry Extract	100 mg	102	Chia Seeds	
103	Curcumin Longvida	1 g	104	White Kidney Bean Extract	500 mg
105	Purple Sweet Potato		106	Clostridium Butyricum	300 mg
107	Avoid PFAS Exposure		108	Stair Climbing	10 minutes
109	Okra		110	Chromium	200 mcg
111	Onion		112	Selenium Supplements	50 mcg

113	Kiwifruit		114	Akkermansia	
115	Royal Jelly	300 mg	116	Shilajit	500 mg
117	Glutathione supplements		118	Coconut	
119	Lactobacillus Salivarius	10 billion CFU	120	Salvia Miltiorrhiza	
121	Eccentric Exercise		122	Black Chokeberry	
123	Lactobacillus Gasseri	10 billion CFU	124	Rutin	
125	Sage Extract	300 mg	126	Bitter Melon Supplement	500 mg
127	Avoid Phthalate Exposure		128	Deep Seawater	
129	Bifidobacterium Lactis HN019	10 billion CFU	130	Prune Essence Concentrate	
131	Raspberries		132	American Ginseng	200 mg
133	Exercise and Sauna		134	Cabbage	
135	Avoid Exposure to Heavy Metals		136	Ecklonia Cava	100 mg
137	Chlorophyll	100 mg	138	Glutamine	5 g
139	Activated Charcoal	500 mg	140	Brazil Nuts	
141	Alpha-Linolenic Acid (ALA)		142	Coriander	
143	Persimmon		144	Fucoidan	300 mg
145	Chlorella	3 g	146	Hatha Yoga	1 hour
147	Chamomile	300 mg	148	Tart Cherries	
149	Nattokinase and Red Yeast Rice		150	Mangosteen and Sphaeranthus Indicus	
151	Wakame and Carob		152	Bee Pollen and Royal Jelly	

153	Tamarind	500 mg	154	Sleep for 7+ Hours	
155	Lactobacillus Fermentum	10 billion CFU	156	Fenugreek	500 mg
157	Almonds		158	Psyllium	5 g
159	Limit Trans Fats		160	Curcumin	500 mg
161	Hazelnuts		162	Strength Training	1 hour
163	Lactobacillus Reuteri	10 billion CFU	164	Morning Sunlight Exposure	30 minutes
165	Cashews		166	Extra Virgin Olive Oil (EVOO)	
167	Dietary Iron		168	Pistachios	
169	Breathing Techniques	10 minutes	170	Bifidobacterium Longum	10 billion CFU
171	Artichoke		172	Calcium Supplements	1000 mg
173	Policosanol	5 mg	174	Lactobacillus Plantarum	10 billion CFU
175	Guar Gum	5 g	176	Low-Carbohydrate Diet	
177	Avoid Alanine Supplements		178	Deep Breathing	5 minutes
179	Guggul	500 mg	180	Evening Primrose Oil	
181	Apricots		182	Gamma-Linolenic Acid (GLA)	200 mg
183	Tai Chi	1 hour	184	Oats	
185	Regular Sleep Schedule		186	Barley	
187	Synbiotics		188	Buckwheat	
189	Nattokinase		190	African Mango Seed Extract	300 mg
191	Practice Exercise Snacks	1 minutesute	192	Locust Bean Gum	5 g

193	Relaxation Techniques	30 minutes	194	DHEA (Dehydroepiandrosterone)	25 mg
195	Magnesium	250 mg	196	Inulin	5 g
197	Mind-Body Exercise	1 hour	198	Canola Oil	
199	Green Tea Extract	250 mg	200	Aquatic Exercise	1 hour
201	Cocoa		202	Swimming	30 minutes
203	Beta-Glucans		204	Maintain Optimal Vitamin D Levels	1000 iu
205	Whole Grains				

Choose Healthy Fats

IMPACT



EVIDENCE



How to implement

Incorporate sources of unsaturated fats such as olive oil, avocados, nuts, seeds, and fatty fish into your daily diet. Aim for at least two servings of fatty fish per week and use olive oil for cooking and salad dressings. Replace saturated fats found in red meat, butter, and processed foods with these healthier options whenever possible.

Description

Choosing healthy fats, such as those found in avocados, nuts, and fatty fish, can support cardiovascular health, reduce inflammation, and promote overall well-being. A diet balanced in healthy fats can help manage cholesterol levels and reduce the risk of heart disease.

Based on their structure, the fats in our diet can be broadly divided into *saturated* and *unsaturated* fat. Trans fat is a type of unsaturated fat [R, R, R].

In large amounts, trans fat and saturated fat may have a negative impact on your heart and reproductive health. Processed foods and animal products like red meat and dairy are rich in these fats [R, R, R, R, R].

Some types of unsaturated fat can protect your heart and support fertility. **Experts say you should add more unsaturated fats to your diet.** Some good sources include [R](#), [R](#), [R](#):

- Nuts
- Seeds
- Fish

Unsaturated fats include polyunsaturated fats or PUFAs (omega-3 and omega-6) and monounsaturated fats or MUFAs [R, R].

How it helps

[illegible]

However, **replacing saturated fats with processed and sugary foods may not help reduce the risk of heart disease** [R].

To make a meaningful change, replace saturated fats with unsaturated fats [R, R, R, R, R, R].

Fish, walnuts, and seeds are rich in polyunsaturated fats (PUFAs). These fats may be the best replacement for saturated fat [R, R].



PERSONALIZED TO YOUR GENES

People with your [PPARA](#) gene variant may respond better to diets low in saturated fat [R]. Try to focus on healthy unsaturated fat sources.

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
PPARA	rs135549	TT	

2



Limit Saturated Fat

IMPACT

4 / 5

EVIDENCE

4 / 5

How to implement

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

Description

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

How it helps

Many experts recommend eating less saturated fat to help lower cholesterol. This may lower your risk of heart disease [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

However, keep in mind that simply reducing saturated fats may not reduce your cholesterol. **This is especially true if you replace saturated fats with processed and sugary foods** [\[R\]](#).

To make a meaningful change, replace saturated fats with healthier alternatives, such as unsaturated fats. Good sources of these healthy fats include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Fish
- Nuts
- Seeds
- Avocado
- Safflower, olive, and canola oil

Fish, walnuts, and seeds are rich in polyunsaturated fats (PUFAs). These fats may be the best replacement for saturated fat [\[R\]](#).

Making these healthy replacements may lower cholesterol by up to 17% [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

3



Red Yeast Rice

IMPACT

4 / 5

EVIDENCE

4 / 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 (200-4,800 mg/day for 4-24 weeks) may help lower total cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

It may help by reducing the amount of cholesterol the liver makes [\[R\]](#), [\[R\]](#).

Please note: *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* [\[R\]](#), [\[R\]](#).

4



Eat Fiber-Rich Foods

IMPACT4 / 5

EVIDENCE4 / 5

How to implement

Incorporate foods high in fiber, such as fruits, vegetables, whole grains, and legumes, into your daily meals. Aim for a total dietary fiber intake of 25 to 30 grams per day, spread out over all meals.

Description

Fiber is a type of carb that your body can’t digest which supports digestion, heart health, and blood sugar control. You can get fiber by eating things like whole grains, fruits, nuts, seeds, and leafy greens.

Fiber is a type of carb that your body can’t digest. It supports digestion, heart health, blood sugar control, and more [\[R, R\]](#).

Adults should get 28 g of fiber every day. Most people in the US don’t get enough fiber [\[R, R\]](#).

You can get more fiber by eating [\[R, R\]](#):

- Whole grains
- Fruits
- Leafy greens
- Nuts and seeds
- Beans
- Broccoli

Fiber supplements, such as [psyllium husk](#), are available for people who don’t get enough fiber from their diets [\[R, R\]](#).

How it helps

Experts recommend eating more fiber (3-10 g) to improve your cholesterol levels. Fiber stops your gut from absorbing too much cholesterol. By doing so, it lowers cholesterol levels in the blood [\[R, R, R\]](#).

High-fiber foods that may help lower cholesterol include:

- Buckwheat [\[R, R, R\]](#)
- Oats [\[R\]](#)
- Barley [\[R, R\]](#)
- Beans [\[R\]](#)
- Apples [\[R\]](#)

The following fiber supplements may also help:

- [Psyllium](#) [\[R, R, R, R\]](#)
- Beta-glucans [\[R, R, R, R\]](#)
- [Glucomannan](#) [\[R, R\]](#)
- [Inulin](#) [\[R, R, R, R\]](#)
- [Pectin](#) [\[R, R\]](#)
- [Resistant starch](#) [\[R\]](#)



PERSONALIZED TO YOUR GENES

People with your **LEP** variant may see a bigger drop in cholesterol from fiber (psyllium) supplementation [\[R\]](#).

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
LEP	rs7799039	GG	

5



Probiotics

IMPACT

4 / 5

EVIDENCE

4 / 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

10 billion

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

Probiotics (taken for at least 8 weeks) may help lower total cholesterol. Probiotic products that may help with total cholesterol include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Fermented milk products like yogurt and kefir
- Probiotic supplements
- Synbiotic supplements (probiotic + prebiotic) with oligo-fructose as a prebiotic

Fermented dairy products containing probiotics may offer a greater benefit than supplements in capsule form [\[R\]](#), [\[R\]](#).

Helpful probiotics include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- *Lactobacillus* (e.g. [Lactobacillus acidophilus](#) and [L. plantarum](#))
- *Bifidobacterium* (e.g. [Bifidobacterium animalis](#))

Products containing multiple probiotics or probiotics at higher concentrations (at least 1 billion CFU*) may help more [\[R\]](#), [\[R\]](#), [\[R\]](#).

Probiotics may help by:

- Reducing how much cholesterol is made and absorbed [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#)
- Increasing cholesterol clearance [\[R\]](#)
- Reducing fat storage and increasing fat breakdown [\[R\]](#), [\[R\]](#)

*CFU (colony forming units) = the number of active bacteria in one probiotic serving

6



Tomato

IMPACT

4 / 5

EVIDENCE

3 / 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. Tomato 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 can help reduce bad cholesterol levels (LDL) in the body. Also, their high fiber content can help to maintain healthy levels of total cholesterol.

A [meta-analysis of 37 guidelines, 108 systematic reviews, and 20 trials](#) identified tomatoes among the foods causing **small LDL-C reductions** [R].

In line with this, a [meta-analysis of 21 studies](#) found that interventions supplementing with tomato **reduce LDL-C (by 0.22 mmol/L) and IL-6** [R].

Another [meta-analysis \(6 studies\)](#) found that tomato consumption **lowers TC (by 4.39 mg/dL), triglycerides (by 3.94 mg/dL), and LDL-C (by 2.09 mg/dL), especially in younger participants** [R].

Lycopene (at least 25 mg/day) lowers total cholesterol (by 7.55 mg/dL) and LDL-C (by 10.35 mg/dL) according to a [meta-analysis of 12 studies](#) [R].

However, a [meta-analysis of 7 trials and 465 participants](#) found that tomatoes **lower TNF-alpha but not IL-6 or CRP levels** [R].

A [meta-analysis of 34 studies](#) found **no significant effects of tomato or lycopene on cardiovascular risk factors such as LDL-C, triglycerides, IL-6, TNF-alpha, or CRP** [R].

7



Bergamot

IMPACT

4 / 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 help lower total cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Bergamot may help by reducing the amount of cholesterol our body makes and absorbs [\[R\]](#), [\[R\]](#), [\[R\]](#).

8



Exercise At Least One Hour a Day

IMPACT

3 / 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 effective way to improve your heart health. Experts recommend 150 minutes of exercise a week to help lower cholesterol [\[R, R, R, R\]](#).

Many types of exercise may help lower total cholesterol. These include:

- Cardio [\[R, R, R, R\]](#)
- Strength training [\[R, R\]](#)
- Water exercise [\[R\]](#)
- Low-intensity exercise, such as tai chi and [yoga](#) [\[R, R, R, R\]](#)

Exercising for longer and doing harder exercises may help with total cholesterol even more [\[R, R, R, R\]](#).

Exercise may also be more effective when combined with a healthy diet [\[R, R\]](#).

Exercise may help lower total cholesterol by helping your muscles use fat as energy [\[R\]](#).

9



Garlic

IMPACT3 / 5

EVIDENCE4 / 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 (taken for at least 8 weeks) may help lower total cholesterol. Studied forms include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

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

The effects may be greater for garlic powder or aged garlic extract [\[R\]](#).

Garlic may help by reducing the amount of cholesterol:

- The body makes and stores [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#)
- Absorbed from the gut [\[R\]](#)

Please note: *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* [\[R\]](#), [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Your ***HMGCR*** gene variant is linked to higher cholesterol levels. It may increase the activity of an enzyme that makes cholesterol. Garlic may help by blocking this enzyme [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
HMGCR	rs3846663	TC	

10

Aerobic Exercise (Cardio)

IMPACT3 / 5

EVIDENCE4 / 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 effective way to improve your heart health. Experts recommend 150 minutes of exercise a week to help lower cholesterol [\[R, R, R, R\]](#).

For instance, aerobic exercise may lower total cholesterol by 4-20 mg/dL according to several meta-analyses [\[R, R, R, R\]](#).

Exercising for longer and doing harder exercises may help with total cholesterol even more [\[R, R, R, R\]](#).

Exercise may also be more effective when combined with a healthy diet [\[R, R\]](#).

Exercise may help lower total cholesterol by helping your muscles use fat as energy [\[R\]](#).

11



Lactobacillus Acidophilus

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take a probiotic supplement containing Lactobacillus acidophilus. Look for products that offer around 10 billion CFUs (colony-forming units) and take it once daily, preferably on an empty stomach, either first thing in the morning or right before bed.

TYPICAL STARTING DOSE
10 billion CFU

Description

[Lactobacillus acidophilus](#) is a [probiotic](#) bacterium that has been traditionally and widely used in the dairy industry to make yogurt [\[R\]](#).

More recently, *L. acidophilus* has been used as a probiotic. People take it to help with [\[R, R, R, R\]](#):

- High cholesterol
- Gut diseases
- Allergies
- Vaginal infections

How it helps

Lactobacillus Acidophilus, a beneficial bacteria, helps lower cholesterol by breaking down bile in the gut, which prevents its reabsorption into your system where it can turn into cholesterol. Thus, this supplement can contribute to reducing total cholesterol levels.

In a review of 11 trials, Gaio and the Lactobacillus acidophilus strain reduced TC and LDL-C levels to a greater extent than other bacterial strains [\[R\]](#).

In an analysis of 15 studies, a significant reduction in LDL was found in trials that contained the Lactobacillus Acidophilus strain ($P < 0.001$) compared to other types of strains [\[R\]](#).

12



Gymnema

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take a gymnema supplement containing 200 to 400 mg of gymnemic acids daily, ideally with a meal to potentially aid in reducing sugar absorption in the intestines. The duration can vary, but many users incorporate it into their daily routine for several months to assess its effects on blood sugar levels and cravings for sweets.

TYPICAL STARTING DOSE

200 mg

Description

Gymnema is an herb used in traditional medicine for its potential to support blood sugar control. Some studies suggest it may have benefits for individuals with diabetes, but it's important to consult with a healthcare provider before using it as a supplement.

[Gymnema](#) (*Gymnema silvestris*), also known as cowplant, gurmarmar, or periploca of the woods, is a plant originally from India. In Ayurvedic medicine, it is known as meshashringi or “the destroyer of sugar” because it temporarily **reduces the taste of sugar** on the tongue [\[R\]](#), [\[R\]](#).

It is traditionally used for [\[R\]](#), [\[R\]](#):

- Diabetes
- Weight loss
- High cholesterol

How it helps

Two separate meta-analyses (the largest one with 16 studies and 419 patients with type 2 diabetes) suggest that *Gymnema sylvestre* supplementation can lower total cholesterol. However, there were concerns about study heterogeneity, low quality, and limited participant diversity in these findings [\[R\]](#), [\[R\]](#).

Gymnema may help by reducing the absorption of fats and cholesterol in the intestines.

13



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 high in fiber and sterols, which can help reduce cholesterol levels. They further improve heart health by reducing oxidative damage and inflammation.

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) [\[R, R, R\]](#).

14



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 reduces total cholesterol 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.

15



Pantethine

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take 600-900 mg of pantethine supplement daily, divided into 2 or 3 doses with meals. Continue this regimen for at least 8 weeks to assess effectiveness in lowering cholesterol levels.

TYPICAL STARTING DOSE
600 mg

Description

Pantethine is a form of vitamin B5 that aids the body in breaking down fats and proteins necessary for energy production. Its key role is to help your body properly use these nutrients for maintaining a healthy metabolic function. This is crucial for overall health because having a well-functioning metabolism means our body can effectively utilize the food we eat, thereby sustaining all its necessary functions.

How it helps

Pantethine helps lower total cholesterol by modifying the way your body metabolizes and produces cholesterol. It also increases your good HDL cholesterol and decreases bad LDL cholesterol.

In 2 placebo-controlled trials of 152 participants at risk of heart disease, supplementation with pantethine (600 mg/day from weeks 1 to 8 and 900 mg/day from weeks 9 to 16) **decreased total (by 6 mg/dL, 0.16 mmol/L, or 3%), LDL cholesterol (by 4 mg/dL, 0.10 mmol/L, or 4%), and apoB (by 4 mg/dL, 0.04 g/L, or 5%)** [\[R\]](#).

In a non-placebo-controlled trial of 216 participant with moderate dyslipidemia, supplementation with pantethine (600 U/day) for 4 weeks **reduced total cholesterol, non-HDL cholesterol, and triglycerides**. However, **coQ10 was more effective** [\[R\]](#).

The combination of pantethine (600 mg/day) and probucol (500 mg/day) taken for 8 weeks **lowered total cholesterol while increasing HDL cholesterol** in a non-placebo-controlled trial of 48 patients with moderate hypercholesterolemia [\[R\]](#).

In 2 placebo-controlled trials of 39 patients with different forms of hyperlipoproteinemia, supplementation with pantethine (900 mg/day) for 28 days **lowered total cholesterol (by 13.5%), LDL cholesterol (by 13.5%), and triglycerides (by 13-30%) while increasing HDL cholesterol (by 10%)** [\[R\]](#), [\[R\]](#).

Pantethine (600-1200 mg/day) taken for 7-24 months **lowered total cholesterol and triglycerides** in an uncontrolled trial of 31 CKD patients with dyslipidemia [\[R\]](#).

16



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 6-16 weeks) may help lower total cholesterol. Longer supplementation may offer a greater benefit [\[R, R, R, R, R, R\]](#).

Spirulina may help by [\[R, R\]](#):

- Reducing how much cholesterol is absorbed from the gut
- Improving the composition of gut bacteria

Please note: *Use caution when buying spirulina supplements. Buy these products only from trusted providers. Some spirulina products may contain toxic contaminants* [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Your ***NPC1L1*** gene variant is linked to higher levels of cholesterol. It may increase the amount of cholesterol your body absorbs. Spirulina may help by reducing cholesterol absorption [\[R, R, R, R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
NPC1L1	rs2072183	GC	

17



Barberry

IMPACT

3 / 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

Barberry and its extracts have demonstrated significant reductions in total cholesterol levels across various studies. A meta-analysis involving 5 trials and 339 participants found that barberry supplementation lowered it by 23.58 mg/dL. Another meta-analysis reported that specific barberry species, *Berberis vulgaris* and *Berberis aristata*, reduced total cholesterol (by 1.02- and 2.25-fold, respectively) in patients with metabolic syndrome. Additionally, several clinical trials supported the total cholesterol-lowering effects of barberry and its extracts in individuals with cardiovascular risk factors, metabolic syndrome, hypercholesterolemia, and type 2 diabetes [R, R, R, R, R, R, R].

Barberry contains berberine, a compound that helps lower total cholesterol levels by boosting your body's ability to remove cholesterol from the bloodstream.

18



Taurine

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Take 1-4 g of taurine supplement daily, divided into two or three doses with meals for optimal absorption. It can be taken continuously, with periodic evaluations of its effects and benefits.

TYPICAL STARTING DOSE

500 mg

Description

Taurine is an amino acid found in various foods and often used in energy drinks and supplements. It plays a role in neurological and cardiovascular health and can help support energy metabolism.

[Taurine](#) is the most abundant free amino acid in humans. It's not essential, which means we can produce it. We can also get it from protein-rich foods, such as [\[R\]](#):

- Seafood
- Meat
- Dairy

Taurine is a popular additive in energy drinks and can also be taken as a supplement [\[R\]](#).

Taurine plays an important role in [\[R\]](#), [\[R\]](#):

- Bile production
- Calcium metabolism

It is also well-known for its antioxidant and anti-inflammatory properties [\[R\]](#).

How it helps

A [meta-analysis of 12 studies](#) concluded that supplementation with taurine (0.5-6 g/day for 1.5-12 weeks) **lowers total cholesterol by 10.87 mg/dL but has no effect on LDL or HDL cholesterol** [\[R\]](#).

Taurine may help lower cholesterol by increasing the production of bile in the liver. Bile binds to cholesterol in the body, helping excrete it.

19



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, is rich in antioxidants which help lower bad cholesterol levels, LDL. This supports heart health by reducing the buildup of plaque in arteries which could contribute to total cholesterol.

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

20



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) lowers total cholesterol (by 4-10 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.

21



Black Seed (Black Cumin)

IMPACT3 / 5

EVIDENCE3 / 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

Black seed may help lower total cholesterol. Studied forms include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- **Black seed powder:** 200-2,000 mg/day for 2 weeks-12 months
- **Black seed oil:** 100-2,000 mg/day for 2 weeks-12 months

However, not all studies found this benefit [\[R\]](#).

Black seed oil may have a greater impact on total cholesterol than black seed powder [\[R\]](#), [\[R\]](#).

Black seed may help by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Increasing cholesterol clearance from the body
- Lowering how much cholesterol is made

Please note: *Black seed may interact with some medications. Consult your doctor before taking black seed* [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Your [HMGCR](#) gene variant is linked to higher cholesterol levels. It may increase the activity of an enzyme that makes cholesterol. Black seed may help by blocking this enzyme [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
HMGCR	rs3846663	TC	

22



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 lowers total cholesterol by 4.51-5.93 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.*

23



Artichoke Leaf Extract

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take 500 mg of artichoke leaf extract daily with a glass of water, preferably with or after a meal to aid absorption.

TYPICAL STARTING DOSE

500 mg

Description

Artichoke leaf extract is derived from the leaves of the artichoke plant and is used as a dietary supplement. It is being researched for its potential to support liver health and digestive function.

[Artichokes](#) are packed with antioxidants and fiber. People eat the heart of the artichoke. However, many of the plant’s active compounds are also found in its leaves [\[R\]](#), [\[R\]](#).

People use artichoke leaf extracts to help [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Lower cholesterol
- Lower blood pressure
- Improve digestion

How it helps

Artichoke leaf extract (500-2,700 mg/day for 5-12 weeks) may help lower total cholesterol [\[R\]](#), [\[R\]](#).

Artichoke leaf extract may help by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Clearing cholesterol from the body
- Reducing how much cholesterol is made by the liver

24



Walking

IMPACT

3 / 5

EVIDENCE

3 / 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 regularly can help increase your "good" cholesterol (HDL) while reducing your "bad" cholesterol (LDL). This helps in improving your overall cholesterol levels and reduces the risk of heart disease.

A systematic review and meta-analysis of 42 studies (1843 participants) found that walking groups offer various health benefits, such as reduced total cholesterol, increased VO2max, improved physical functioning, and decreased depression scores. Another meta-analysis of 12 studies in overweight or obese women found moderate reductions in total cholesterol and LDL levels with regular moderate-intensity walking. Additionally, a meta-analysis of 25 trials (1176 adults) showed reduced LDL-C and TC/HDL-C with walking, regardless of body composition changes. Another meta-analysis (22 trials, 948 subjects) found a 4% decrease in non-HDL-C in walking groups, with more recent studies showing greater reductions. However, the optimal frequency, duration, and intensity for cardiovascular risk reduction remain unclear, as per a meta-analysis of 37 trials involving 2001 participants [R, R, R, R, R].

25



Paleo Diet

IMPACT

3 / 5

EVIDENCE

3 / 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

Several meta-analyses reported that the Paleo diet can lead to a reduction in total cholesterol levels by 0.22-0.32 mmol/L in individuals with metabolic disorders. Additionally, the Paleo diet demonstrated a more significant and long-term impact than other diets. In a non-placebo-controlled trial of 69 participants with metabolic syndrome, adherence to a Paleo diet for 10 weeks also resulted in reduced total cholesterol levels [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

The Paleo diet may help by eliminating processed foods, which are often high in unhealthy saturated and trans fats.

26



Glucomannan

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take 1 gram of glucomannan powder with 8 ounces of water, 15 minutes to 1 hour before each meal, three times daily. It's essential to drink plenty of water when taking glucomannan to ensure it reaches the stomach and expands, helping to promote a feeling of fullness.

TYPICAL STARTING DOSE

3 g

Description

Glucomannan is a dietary fiber derived from the root of the konjac plant and is often used as a weight loss supplement. It may promote feelings of fullness and support weight management when used in conjunction with a balanced diet.

How it helps

In one meta-analysis with 12 studies and 370 participants, glucomannan lowered LDL-C by 15.99 mg/dL [\[R\]](#).

In patients with type 2 diabetes, glucomannan reduces total cholesterol, and LDL cholesterol according to a meta-analysis of 6 trials and 440 participants [\[R\]](#).

27



Vitamin C

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take 500-2000 mg of vitamin C supplement daily. It can be taken at any time of the day, with or without food, according to personal preference or tolerance.

TYPICAL STARTING DOSE

500 mg

Description

[Vitamin C](#) is an essential nutrient. This means that our bodies can’t produce it on their own, so we have to get it from food or supplements [\[R\]](#).

Foods rich in Vitamin C include: [\[R\]](#)

- Citrus Fruits
- Peppers
- Brussel sprouts
- Kiwi
- Broccoli
- Tomato
- Cantaloupe
- Cauliflower
- Spinach

Vitamin C has antioxidant properties. It supports immunity, heart health, and wound healing [\[R\]](#), [\[R\]](#).

Vitamin C deficiency is called *scurvy*. In the past, many sailors suffered from it [\[R\]](#).

How it helps

Vitamin C (125-2,000 mg/day for 3 - 12 months) may help lower total cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#).

Vitamin C may help by preventing cholesterol buildup in the blood vessels [\[R\]](#).

Please note: *Supplementing with vitamin C is linked to a slightly higher risk of kidney stones in men. Talk to your doctor before taking vitamin C* [\[R\]](#), [\[R\]](#).

28



Niacin Supplements

IMPACT3 / 5

EVIDENCE3 / 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 may help reduce total cholesterol. Studied forms include:

- **Niacin:** 150-4,500 mg/day for 2-12 months [\[R\]](#)
- **Extended-release niacin:** 500-3,000 mg/day for 1.5-12 months [\[R, R, R, R\]](#)

Niacin may help by:

- Reducing how much fat is made by the liver [\[R, R, R\]](#)
- Increasing cholesterol removal from the blood [\[R, R, R\]](#)

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

29



Rice Bran Oil

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Incorporate rice bran oil into your diet by using it as a cooking oil for frying, sautéing, or salad dressings. Aim for replacing other cooking oils with rice bran oil, using it approximately 1-3 tablespoons daily, depending on your total calorie intake and dietary needs.

Description

Rice bran oil is a cooking oil extracted from rice bran and is known for its high smoke point and heart-healthy monounsaturated fats. It's a good source of vitamin E and may provide benefits for blood sugar and cholesterol.

Rice bran is the layer that surrounds a grain of rice. The oil from rice bran is used in cooking or supplements [\[R\]](#).

Rice bran oil may help [\[R\]](#):

- Decrease cholesterol levels
- Maintain healthy blood sugar levels

How it helps

Rice bran oil (18-50 g/day for 3-12 weeks) may help lower total cholesterol. However, one study didn't find this benefit [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Rice bran oil extracts, such as **gamma oryzanol**, may also help [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Rice bran oil may help by reducing how much cholesterol our body makes and absorbs [\[R\]](#), [\[R\]](#).

30



Alpha-Lipoic Acid

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

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

TYPICAL STARTING DOSE

100 mg

Description

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

People use alpha-lipoic acid to help with [\[R, R, R, R\]](#):

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

How it helps

Alpha-lipoic acid helps lower total cholesterol by preventing the oxidation of LDL (bad cholesterol), thereby reducing its buildup in your arteries. It also improves the function of cells that remove cholesterol from your body, aiding in overall cholesterol management.

Two meta-analyses (the largest one with 12 studies and 770 participants) concluded that supplementation with [alpha-lipoic acid](#) (typically 600 mg/day for 8-16 weeks) **lowers total cholesterol (by 10.18-10.68 mg/dL), LDL cholesterol (by 9.22-12.91 mg/dL)**, and triglycerides but not HDL cholesterol [\[R, R\]](#).

Alpha-lipoic acid may have **similar effects in people with metabolic diseases such as type 2 diabetes** according to a meta-analysis of 24 trials [\[R\]](#).

31



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 1-6 months) may help lower total cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Berberine or its source, tree turmeric, may also help when combined with other supplements, such as [milk thistle](#). Milk thistle may help the body absorb berberine [\[R\]](#), [\[R\]](#).

Berberine may help by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Clearing cholesterol from the blood
- Reducing how much fat is made by the liver

 PERSONALIZED TO YOUR GENES

A supplement with berberine may reduce cholesterol more in people with your [LDLR](#) gene variant [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
SPC24	rs14158	GG	

32



Probiotic Yogurt

IMPACT3 / 5

EVIDENCE2 / 5

How to implement

Consume one to two servings of probiotic yogurt each day. Each serving is typically 6 to 8 ounces. Continue this practice daily for at least 1 to 2 weeks to begin noticing benefits to digestive health.

Description

Probiotic yogurt is a dairy product containing live probiotic cultures like Lactobacillus and Bifidobacterium, which can aid digestion and improve gut health when consumed regularly. It is a good source of calcium, protein, and probiotics, contributing to bone health and digestive well-being.

How it helps

Probiotic yogurt introduces healthy bacteria into your digestive system, some of which can help break down cholesterol and prevent its absorption into the bloodstream. This can lead to reductions in total cholesterol levels.

54 volunteers were studied for varying periods with dietary supplementation of non pasteurized yogurt, pasteurized yogurt and 2% butterfat milk. Serum cholesterol was significantly reduced by 5 to 10% after 1 week of supplementation with either non pasteurized or pasteurized yogurt; 2% butterfat milk reduced serum cholesterol to a smaller and less significant effect. Serum triglycerides were unaffected by the diet [\[R\]](#).

A randomized and crossover trial included 14 healthy subjects Consumption of probiotic yogurt in comparison with ordinary yogurt caused a significant decrease in serum total cholesterol [\[R\]](#).

Subjects in the intervention group (n=36) consumed 300 g/d of probiotic yogurt containing Lactobacillus acidophilus La5 and Bifidobacterium lactis Bb12 and those in the control group (n=36) consumed 300 g/d of conventional yogurt for 8 wk. Probiotic yogurt consumption resulted in reductions in serum levels of alanine aminotransferase, aspartate aminotransferase, total cholesterol, and low-density lipoprotein cholesterol, compared with control group [\[R\]](#).

In a double-blind trial, 60 type 2 diabetic individuals consumed probiotic or conventional yogurt for 6 weeks. Probiotic yogurt significantly lowered total cholesterol (4.54%) and LDL cholesterol (7.45%), without significant changes in triglycerides or HDL cholesterol. Atherogenic indices also improved, suggesting potential cardiovascular benefits [\[R\]](#).

33



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, an antioxidant found in foods like tomatoes, can help in lowering total cholesterol levels. It does this by reducing LDL or "bad" cholesterol while increasing HDL or "good" cholesterol, which in turn helps to improve overall heart health.

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 $\geq 25\text{mg}$, significantly reduced total serum cholesterol ($-7.55\pm 6.15\text{mg/dl}$, $p=0.02$) and low-density lipoprotein (LDL) cholesterol ($-10.35\pm 5.64\text{mg/dl}$, $p=0.0003$) [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 ($I^2 = 45\%$). However, in a separate meta-analysis of 11 studies ($n = 854$), lycopene did not significantly affect TG levels [R](#).

34



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, a type of prebiotic fiber, can help lower total cholesterol by promoting the growth of beneficial gut bacteria. These bacteria can help in metabolizing and reducing cholesterol levels in your blood.

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 [\[R\]](#).

35



Chickpeas

IMPACT

3 / 5

EVIDENCE

2 / 5

How to implement

Incorporate chickpeas into your diet by adding them to salads, soups, and stews, or by making hummus. Aim for at least a half-cup serving, 3-4 times a week.

Description

Chickpeas, also known as garbanzo beans, are a good source of fiber, protein, and various vitamins and minerals. They can promote digestive regularity, provide sustained energy, and contribute to overall well-being when included in a balanced diet.

Chickpeas are a good source of minerals like manganese, iron, copper, zinc, and phosphorus, as well as folate and fiber. A ½ cup serving provides 0.9 mg of manganese or 39%DV.

How it helps

In several non-placebo-controlled trials on healthy volunteers, incorporating chickpeas or chickpea-based products into the diet consistently resulted in reductions in total cholesterol (by 3.9%, 0.25 mmol/L, or 7.7 mg/dL) [\[R, R, R\]](#).

Chickpeas are rich in soluble fiber, which helps lower LDL cholesterol levels by binding to it and removing it from your body. Additionally, they contain plant sterols that inhibit cholesterol absorption.

36



Soy Isoflavones

IMPACT2 / 5

EVIDENCE4 / 5

How to implement

Take a soy isoflavone supplement containing 40 to 80 milligrams daily, ideally with food to improve absorption. This dosage can be continued on a daily basis for several months, but it's recommended to reevaluate its effectiveness and any potential side effects with a healthcare provider periodically.

TYPICAL STARTING DOSE

40 mg

Description

Soy isoflavones are natural compounds found in soybeans and soy products. They are phytoestrogens, which means they can mimic the effects of estrogen in the body and are associated with potential health benefits like menopausal symptom relief and improved heart health.

Soy is a common food in many cuisines around the world, especially Asian cuisines [\[R\]](#).

It's a great source of [\[R\]](#), [\[R\]](#):

- Plant-based protein
- Fiber
- Omega-3 fats
- Antioxidants (isoflavones)

Soy-based foods include [\[R\]](#):

- Tofu
- Tempeh
- Edamame
- Miso
- Natto

Soy protein and soy isoflavones are also available as supplements.

How it helps

Soy may help decrease total cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Soy products that may help include:

- **Soy protein** (25-30 g/day for 6-9 weeks) [\[R\]](#), [\[R\]](#)
- **Soy isoflavones** (around 100 mg/day for 1-3 months) [\[R\]](#), [\[R\]](#)

Soy may support healthy cholesterol levels by helping you burn fat [\[R\]](#), [\[R\]](#).

37



Mediterranean Diet

IMPACT

2 / 5

EVIDENCE

4 / 5

How to implement

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

Description

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

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

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

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

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

How it helps

The Mediterranean diet may be one of the most helpful diets to lower total cholesterol [\[R, R, R, R, R, R\]](#).

This diet may be a great choice because it is:

- Low in saturated fat [\[R\]](#)
- Focused on healthy fat sources like olive oil and fish [\[R, R\]](#)
- Rich in fiber [\[R\]](#)

Experts agree that the Mediterranean diet may help improve cholesterol and protect against heart disease [\[R, R, R\]](#).

38



Resistant Starch

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Incorporate 40g of Jo's resistant starch into your daily diet. This can be done by adding it to smoothies, yogurt, or baked goods. Ensure to spread the intake throughout the day for better tolerance.

TYPICAL STARTING DOSE

40 g Hi-Maize

Description

Resistant starch is a type of starch that resists digestion in the small intestine, making it a prebiotic fiber that can benefit gut health. It can be found in foods like green bananas, legumes, and certain grains.

[Resistant starch](#) is starch that doesn't get digested in the small intestine [\[R\]](#), [\[R\]](#).

Some types of resistant starch include [\[R\]](#):

- **Type 1** occurs naturally in foods such as whole grains
- **Type 2** can be isolated from foods such as corn and green banana
- **Type 3** is created during the cooking and cooling process of starchy foods like potatoes

Resistant starch doesn't increase blood sugar like typical digestible starches do [\[R\]](#), [\[R\]](#).

Instead, it feeds good bacteria in the colon that [\[R\]](#), [\[R\]](#):

- Support healthy gut function
- Support immunity
- Reduce inflammation

How it helps

Supplementation with resistant starch (10-30 g/day for 4-12 weeks) may reduce total cholesterol. It may help both healthy people and those with metabolic syndrome [\[R\]](#), [\[R\]](#).

Resistant starch fermentation in the gut produces short-chain fatty acids that inhibit cholesterol production [\[R\]](#).

39



Chitosan

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Take 500 mg of chitosan supplement with water just before meals, up to three times daily. For best results, use consistently before lunch and dinner.

TYPICAL STARTING DOSE

500 mg

Description

Chitosan is a dietary supplement derived from the shells of crustaceans like shrimp and crabs. It's sometimes used to support weight management by potentially reducing fat absorption in the digestive tract

[Chitosan](#) is made from chitin, a compound found in shellfish, fungi, and insects. Doctors mainly use products with chitosan to heal wounds [\[R\]](#).

Chitosan may help [\[R, R, R, R\]](#):

- Lower blood pressure
- Promote weight loss
- Control cholesterol levels
- Support oral health

How it helps

Chitosan (240-3,000 mg/day for up to 12 weeks) may help lower total cholesterol [\[R, R, R, R, R, R, R, R\]](#).

However, not all studies found this benefit [\[R, R, R, R, R\]](#).

Chitosan may help by reducing how much cholesterol is absorbed in the gut [\[R\]](#).

Please note: *Be cautious when using chitosan if you are allergic to shellfish. Some products may contain shellfish proteins.*

40



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 [\[R, R, R\]](#).

41



Genistein

IMPACT

2 / 5

EVIDENCE

3 / 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].

42



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 lowers total cholesterol by 11.21-12.34 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.

43



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 supplement aids in reducing total cholesterol by inhibiting the absorption of cholesterol in the blood and liver. Its antioxidant effects further prevent the oxidation of LDL (bad) cholesterol, thus improving 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** [\[R\]](#).

44



Resveratrol

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Take 150-500 mg of resveratrol as a supplement daily, preferably with meals to enhance absorption. This dosage range is based on studies for various health benefits, and it's advised to not exceed 500 mg per day without medical supervision.

TYPICAL STARTING DOSE
150 mg

Description

Resveratrol is a natural compound found in red grapes, red wine, and some berries. It is known for its potential antioxidant properties and its role in promoting heart health.

[Resveratrol](#) is an antioxidant found mainly in [\[R\]](#):

- Berries
- Red grapes
- Red wine
- Peanuts

It’s purported to have anti-inflammatory and antioxidant effects [\[R, R, R\]](#).

How it helps

Multiple meta-analyses on resveratrol supplementation indicate mixed effects on lipid profiles. It generally lowers total cholesterol (by 7.65-9.75 mg/dL), LDL-cholesterol, and triglycerides, with stronger effects in interventions lasting over 3 months or involving type 2 diabetes patients. However, it may raise total and LDL cholesterol, with non-significant effects on triglycerides, in people with type 2 diabetes and obesity [\[R, R, R, R, R, R\]](#).

45



Yoga

IMPACT

2 / 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

Exercise is an effective way to improve your heart health. Experts recommend 150 minutes of exercise a week to help lower cholesterol [\[R, R, R, R\]](#).

Low-intensity exercise such as [yoga](#) and tai chi may help [\[R, R, R, R\]](#).

Exercising for longer and doing harder exercises may help with total cholesterol even more [\[R, R, R, R\]](#).

Exercise may also be more effective when combined with a healthy diet [\[R, R\]](#).

Exercise may help lower total cholesterol by helping your muscles use fat as energy [\[R\]](#).

46



Avocado

IMPACT

2 / 5

EVIDENCE

3 / 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

Avocado consumption is associated with lower levels of total cholesterol due to its content of monounsaturated fats and fiber.

Consuming avocado may lower total cholesterol, especially in people with a certain gene variant [\[R\]](#).

A meta-analysis of 10 studies and 229 participants concluded that consuming avocados **lowers LDL-C (by 16.50 mg/dL)** [\[R\]](#).

47



L-Carnitine

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

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

TYPICAL STARTING DOSE

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 (2,000-3,000 mg/day for 3-6 months) may help lower total cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

However, patients with kidney disease may not benefit [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

L-carnitine may help by increasing fat breakdown [\[R\]](#).

48



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 supplement helps lower total cholesterol by reducing the levels of harmful LDL cholesterol while maintaining the good HDL cholesterol. It works by enhancing the body's ability to metabolize glucose and fat, thereby preventing their build-up in the blood.

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: [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#)

49



Broccoli Sprouts

IMPACT

2 / 5

EVIDENCE

2 / 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, a compound that enhances the body's natural detoxification processes which could help reduce total cholesterol levels. They also offer anti-inflammatory benefits which indirectly support cardiovascular health.

Seventeen studies primarily used broccoli sprouts as an intervention. Results were consistent for blood glucose, lipid profile, and oxidative stress improvement. Less evidence was found for decreased inflammation, Helicobacter pylori colonization, and cancer protection [R].

50



Macadamia Nuts

IMPACT2 / 5

EVIDENCE2 / 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 a non-placebo-controlled trial of 30 healthy volunteers, consuming a macadamia nut-based diet (37% energy from fat) for 30 days was as effective as a Step 1 diet at lowering total cholesterol. In a non-placebo-controlled trial of 35 subjects with abdominal obesity, consuming the usual diet plus 15% daily calories of macadamia nuts for 8 weeks non-significantly reduced total cholesterol (by 2.1%), especially in those with lower BMI or body fat [\[R\]](#), [\[R\]](#).

In an uncontrolled trial of 17 hypercholesterolemic men, consuming macadamia nuts (40-90 g/day) for 4 weeks decreased total cholesterol (by 3%). Similarly, eating a macadamia nut-based diet (42.5 g/2100 kcal) for 5 weeks lowered total cholesterol (by 0.51 mmol/L), and TC:HDL-C (by 0.29) better than a standard American diet in a non-placebo-controlled trial of 25 mildly hypercholesterolemic subjects [\[R\]](#), [\[R\]](#).

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

51



Avoid Betaine (TMG) Supplements

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Do not purchase or consume any dietary supplements that list betaine (also known as trimethylglycine or TMG) among their ingredients. Check the labels of supplements you currently use or plan to buy to ensure they are free of betaine.

Description

Avoiding excessive betaine supplements is recommended, as very high intake may have potential side effects. Betaine can be obtained naturally from foods like beets and spinach without the risk of overconsumption.

How it helps

Betaine (TMG) helps lower total cholesterol by promoting the efficient metabolism of fats and lipids in the liver. It also aids in methylation processes that regulate cholesterol levels, potentially preventing its buildup in the bloodstream.

A [multicenter, controlled, randomized, parallel-group, and primary prevention trial with 5,613 participants with overweight, obesity, and ≥3 criteria of metabolic syndrome](#) found that the greatest 1-y increase in **dietary betaine intake** was associated with lower **total cholesterol (-4.52 mg/dL)**, and **LDL cholesterol (-4.16 mg/dL)** [\[R\]](#).

A [meta-analysis of 6 randomized placebo-controlled trials](#) found that betaine supplementation (at least 4 g/day for 6-24 weeks) may **increase total cholesterol** (0.34 mmol/L ,95% CI: 0.02, 0.65) [\[R\]](#).

A [meta-analysis](#) found that betaine supplementation (≥4 g/day) intended to lower homocysteine may **increase total cholesterol (MD: 14.12 mg/dl, 95% CI%: 9.23 to 19.02), low-density lipoprotein (LDL) (MD: 10.26 mg/dl, 95% CI: 6.14 to 14.38)]**, dimethylglycine (DMG) (MD: 21.33 micromol/L, 95% CI: 13.87 to 28.80), and methionine (MD: 2.06 micromol/L, 95% CI: 0.23 to 3.88). Doses of 4 g/day **did not cause any adverse effect on lipid profiles** [\[R\]](#).

52



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, myo-inositol (4 g/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 study of 80 postmenopausal women with metabolic syndrome, myo-inositol (2 g, 2x/day) 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 [\[R\]](#).

In an 8-week trial, 92 obese NAFLD patients were randomly assigned to ALA, myo-inositol, propolis, or control groups. Myo-inositol led to significant improvements in cholesterol [\[R\]](#).

53



Lemon Balm

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take a 500 mg lemon balm supplement daily. This dosage can be consumed at once or divided into smaller doses throughout the day, according to personal preference or the guidance of a healthcare provider.

TYPICAL STARTING DOSE

500 mg

Description

Lemon balm is an herb known for its calming and soothing properties. It is often used in herbal teas and aromatherapy to reduce stress and anxiety, promote relaxation, and improve sleep quality.

[Lemon balm](#) (*Melissa officinalis*) is an herb used in gardening and traditional medicine. **It’s rich in antioxidants and relaxing components** [\[R\]](#), [\[R\]](#).

People use lemon balm as a tea or supplement to [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Relieve anxiety
- Improve sleep quality
- Reduce stress

How it helps

A meta-analysis of 7 trials found lemon balm reduced total cholesterol and systolic blood pressure but didn't affect other markers [\[R\]](#).

Lemon balm contains compounds that can lower cholesterol by limiting the amount of cholesterol the liver produces and raising HDL cholesterol.

54



Strawberries

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Incorporate a serving of strawberries, which is approximately eight medium-sized strawberries (about 1 cup or 150 grams), into your daily diet. You can enjoy them as a snack, add them to your breakfast cereal or oatmeal, blend them into smoothies, or use them as a topping for salads and desserts.

Description

Strawberries are a delicious fruit rich in vitamin C, antioxidants, and dietary fiber. They provide essential nutrients and are associated with various health benefits, including improved immune function and heart health.

Strawberries (*Fragaria ananassa*) are one of the most consumed berries, both fresh and processed in juices, jams, yogurts, and desserts [\[R\]](#).

Strawberries have a high content of antioxidants and vitamins, such as [\[R\]](#), [\[R\]](#):

- Vitamin C
- Folate
- Flavonoids

How it helps

Strawberries are high in antioxidants and fiber, which can help lower your total cholesterol by reducing LDL (the "bad" cholesterol) and increasing HDL (the "good" cholesterol). This makes them a heart-healthy food choice.

A systematic review and meta-analysis of 14 randomized trials showed that strawberry supplementation reduced oxidized LDL, malondialdehyde, C-reactive protein, total cholesterol, and diastolic blood pressure. It raised fasting blood sugar but had no other significant effects on cardiovascular risk factors. A more recent meta-analysis of 11 trials found strawberries reduced CRP but had no impact on blood pressure, lipid profile, or fasting blood glucose in most cases. In a separate study, strawberry powder improved flow-mediated dilation and lowered systolic BP, possibly due to microbial-derived phenolic metabolites. However, another study found no effects on vascular function or postprandial metabolic parameters. Larger, longer-term studies are needed [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

55



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 [\[R\]](#), [\[R\]](#).

This diet is designed to trick your body into believing it's fasting, which stimulates your cells to remove cholesterol from the blood to produce energy.

56



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, myo-inositol (4 g/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 study of 80 postmenopausal women with metabolic syndrome, myo-inositol (2 g, 2x/day) 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 [\[R\]](#).

In an 8-week trial, 92 obese NAFLD patients were randomly assigned to ALA, myo-inositol, propolis, or control groups. Myo-inositol led to significant improvements in cholesterol [\[R\]](#).

57



Jujube

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take jujube supplements in the form of capsules or extract, generally ranging from 250 mg to 500 mg, once or twice daily. It is recommended to follow the dosage instructions on the product label or consult a healthcare professional for personalized advice. For best results, incorporate into your daily routine for at least 4 to 8 weeks.

TYPICAL STARTING DOSE

250 mg

Description

Jujube is a fruit rich in antioxidants and vitamins. It can support digestive health, provide a source of essential nutrients, and contribute to overall well-being when included in the diet.

How it helps

Jujube, a fruit rich in fiber, reduces bad LDL cholesterol by blocking its absorption into the bloodstream. It also provides antioxidants that enhance cardiovascular health, helping lower total cholesterol levels.

In a non-placebo-controlled trial of 48 patients with type 2 diabetes, supplementation with dried jujube (30 g/day) for 12 weeks lowered fasting glucose (by 11.36%), triglycerides (by 13.59%), LDL cholesterol (by 7.46%), and CRP (by 24.46%). Similarly, consuming jujube infusion (10 g/100 mL boiling water) 3x/day before meals as an add-on to a balanced diet for 12 weeks lowered HbA1c, total cholesterol (by 5.69 mg/dL), triglycerides (by 16.14 mg/dL), LDL cholesterol (by 13.30 mg/dL), LDL:HDL, and TC:HDL in a non-placebo-controlled trial of 116 patients with type 2 diabetes. In a placebo-controlled trial of 86 obese adolescents with dyslipidemia, supplementation with jujube fruit powder (5 g, 3x/day) for 1 month decreased total and LDL cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#).

58



Sunflower Seeds

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Incorporate a small handful of sunflower seeds (about 1 ounce or 28 grams) into your daily diet. You can eat them alone as a snack, sprinkle them on salads, or add them to homemade bread or muffins. Ensure they are unsalted to keep your sodium intake in check.

Description

Sunflower seeds are nutrient-dense plant-based snacks high in protein, healthy fats, fiber, and essential minerals like magnesium and selenium. They are associated with promoting heart health, supporting digestion, and providing energy.

Sunflower seeds are a great source of biotin, protein and antioxidants, minerals like zinc and selenium, and vitamins E and B6. A ¼ cup serving provides 2.6 mcg of biotin or 9%DV.

How it helps

Supplementation with sunflower seed extract (500 mg/day for 12 weeks) reduced total cholesterol in 50 obese adults. Consuming sunflower seed oil (25 mL/day for 7 weeks) lowered total cholesterol in 60 healthy volunteers. Eating a diet enriched in sunflower oil lowered total cholesterol better than one rich in olive oil in a trial on 18 men [\[R\]](#), [\[R\]](#), [\[R\]](#).

Sunflower seeds are rich in monounsaturated and polyunsaturated fats, which are beneficial for lowering total cholesterol levels. Additionally, they contain phytosterols which can reduce cholesterol absorption in the body.

59



Kimchi

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Incorporate about a half cup of kimchi into one of your daily meals. This could be as a side dish or part of the meal for at least one month to observe potential health benefits such as improved digestion.

Description

Kimchi is a fermented vegetable dish commonly consumed in Korean cuisine. It's packed with probiotics and nutrients, which can promote gut health and boost the immune system.

How it helps

Kimchi, a fermented Korean food, contains beneficial probiotics that can help reduce total cholesterol. It can aid in better digestion and absorption of nutrients, which may lead to lowered cholesterol levels.

- In a [non-placebo-controlled trial of 100 healthy volunteers](#), consuming kimchi (15-210 g/day) for 7 days had a **dose-dependent lowering effect on fasting glucose, total glucose, TC, and LDL-C**. The lipid-lowering effects of kimchi were **stronger in people with TC above 190 mg/dL and LDL-C above 130 mg/dL** [\[R\]](#).
- In a [non-placebo-controlled trial of 22 overweight and obese participants](#), consuming kimchi (both fresh and fermented) for 4 weeks **lowered fasting glucose, fasting insulin, and total cholesterol, especially if fermented** [\[R\]](#).
- In a [non-placebo-controlled trial of 21 prediabetic participants](#), consuming fermented kimchi for 8 weeks **decreased insulin resistance and improved glucose tolerance** [\[R\]](#).
- In a [placebo-controlled trial of 40 prediabetic participants](#), supplementation with the kimchi-derived probiotic Lactobacillus plantarum HAC01 for 8 weeks **reduced 2h-PPG and HbA1c levels** [\[R\]](#).

60



Hibiscus

IMPACT2 / 5

EVIDENCE2 / 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 contains antioxidants known as anthocyanins, which can help lower cholesterol levels by preventing the oxidative damage of LDL (bad) cholesterol. This can assist in reducing total cholesterol levels, benefiting overall heart health.

A systematic review and meta-analysis of 9 trials (503 patients with metabolic syndrome) found Hibiscus sabdariffa (Roselle) beneficial for blood lipids. It reduced total cholesterol and LDL cholesterol but not triglycerides. More high-quality trials are needed for confirmation [\[R\]](#).

In a systematic review and meta-analysis of 8 clinical trials, Hibiscus sabdariffa reduced fasting plasma glucose and LDL, especially at doses of 500 mg/kg and above, but had no significant effect on total cholesterol, HDL, or triglycerides [\[R\]](#).

In a small study, a hibiscus beverage (ABHS) outperformed 40 mg simvastatin in reducing total cholesterol, but it also significantly lowered simvastatin exposure by 44.6%, suggesting a notable herb-drug interaction. Co-administration is discouraged without more clinical data. [\[R\]](#).

Please note: *Hibiscus may interact with painkillers and anti-inflammatory drugs such as diclofenac and drugs for high cholesterol such as simvastatin. Make sure to consult your doctor before consuming hibiscus* [\[R\]](#) [\[R\]](#).

61



Pecans

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Incorporate about a handful of pecans (roughly 1 ounce or 28 grams) into your daily diet. You can eat them as a snack, sprinkle chopped pecans over salads, or blend them into smoothies. Aim to do this regularly as part of your daily dietary habits to enjoy their health benefits.

Description

Pecans are a type of nut derived from the hickory tree, primarily native to North America. They are rich in nutrients like healthy fats, protein, dietary fiber, and various vitamins and minerals, including vitamin E, manganese, and zinc.

Pecans are a good source of fiber, along with manganese, molybdenum, copper, thiamine, and zinc. A 1-ounce serving provides 1.1 mg of manganese or 48%DV.

How it helps

Eating pecans can be beneficial for total cholesterol, as they are rich in monounsaturated fats which have been linked to reductions in "bad" LDL cholesterol and increases in "good" HDL cholesterol. Also, the fiber content in pecans can help further lower cholesterol by binding to bile acids and removing them from your body.

In various non-placebo-controlled trials on healthy volunteers, older adults, and individuals at risk of cardiovascular disease, pecan consumption had positive effects on cholesterol levels and heart health. When incorporated into the diet, pecans were associated with reductions in total cholesterol (by 0.8 mmol/L or 13.8-20.4 mg/dL), LDL cholesterol (by 0.26-0.32 mmol/L or 13.1-14.3 mg/dL), triglycerides (by 0.14 mmol/L or 13.9 mg/dL), TC/HDL ratio (by 3.92), non-HDL-C (by 14.5-15.1 mg/dL), LDL particle number (by 83 nmol/L), LDL medium (by 18 nmol/L), and apoB (by 0.99 mg/dL), while increasing HDL cholesterol (by 0.06 mmol/L). Pecan-enriched diets showed significant improvements in lipid profiles and cardiovascular risk factors compared to regular diets or dietary modifications. However, supplementing a healthy diet with pecans didn't further improve lipid profile in patients with coronary artery disease [[R](#), [R](#), [R](#), [R](#), [R](#)].

62



Astaxanthin

IMPACT2 / 5

EVIDENCE2 / 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, a potent antioxidant, can help reduce total cholesterol in the body by inhibiting the production of bad cholesterol (LDL-cholesterol) and enhancing the activity of good cholesterol (HDL-cholesterol). As a result, it promotes cardiovascular health by preventing the buildup of fatty deposits in the arteries.

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) **lowers 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](#) [\[R\]](#).

63



Mulberry

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take a mulberry supplement at a dosage of 500mg to 1,000mg per day, preferably with meals to enhance absorption. This should be continued daily for at least 3 months to observe potential health benefits.

Description

Mulberries are the fruit of the mulberry tree, often used in traditional medicine and cuisine. It is a source of vitamins and antioxidants, potentially offering health benefits such as blood sugar control and immune support.

How it helps

A meta-analysis of 12 trials concluded that mulberry consumption lowers total cholesterol by 13.13 mg/dL) and LDL cholesterol by 8.84 mg/dL [\[R\]](#).

Mulberry is known to block an enzyme in our gut that absorbs cholesterol.

64



Apple Cider Vinegar

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Incorporate 1-2 tablespoons of apple cider vinegar into your diet daily by diluting it in a large glass of water. Consume this mixture before meals to potentially benefit from its effects.

Description

Apple cider vinegar is a fermented liquid made from crushed apples and is known for its potential health benefits. It is rich in acetic acid and may aid in weight management, improve digestion, and help regulate blood sugar levels, often used as a natural remedy for various conditions like acid reflux and insulin resistance.

[Vinegar](#) is often used in cooking to add sour flavor and to preserve foods through pickling. Some people also use vinegar for cleaning [\[R\]](#).

Apple cider vinegar is one of the most common vinegars produced from apples. As a health food, apple cider vinegar may help [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Reduce blood sugar
- Lower cholesterol
- Fight infections

How it helps

Drinking apple cider vinegar may help lower total cholesterol by reducing low-density lipoproteins (LDL), the "bad" cholesterol, and increasing high-density lipoproteins (HDL), the "good" cholesterol. However, more research is needed to thoroughly understand and validate how effective it is.

A meta-analysis of 9 studies concluded that consuming apple cider vinegar lowers total cholesterol (by 6.06 mg/dL) in patients with type 2 diabetes, people taking less than 15 mL/day, and those consuming it for over 8 weeks [\[R\]](#).

65



Biotin And Chromium Picolinate

IMPACT

2 / 5

EVIDENCE

2 / 5

Description

Biotin and Chromium Picolinate are nutrients that your body needs for good health. Biotin, a type of B vitamin, helps to turn the food you eat into energy. Chromium Picolinate helps your body maintain proper sugar levels and can contribute to weight loss. Both are essential for maintaining a healthy metabolism and overall wellbeing.

How it helps

The combination of biotin (2 mg/day) and chromium picolinate (600 mcg/day) taken for 28-90 days lowered total cholesterol, LDL cholesterol, total to HDL cholesterol, LDL to HDL cholesterol, non-HDL to HDL cholesterol, VLDL cholesterol, and triglycerides in 3 placebo-controlled trials of 427 patients with type 2 diabetes [R, R, R].

Biotin can enhance the metabolism of carbohydrates, fats, and proteins, which could potentially improve total cholesterol levels. Chromium increases the body's sensitivity to insulin, thereby indirectly helping reduce LDL cholesterol.

66



Broccoli

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Incorporate at least one cup of chopped broccoli, either steamed or raw, into your daily diet. This can be as part of a meal or snack. Continue this practice daily for ongoing health benefits.

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.

Broccoli is high in vitamin K and C, as well as a number of other vitamins and minerals, and antioxidants like quercetin. A ½ cup serving provides 110 mcg of vitamin K or 92%DV.

How it helps

Broccoli is rich in dietary fiber and antioxidants, which help lower total cholesterol by binding with bile acids in the digestive system and removing them from your body. Additionally, its antioxidants prevent cholesterol oxidation, which is believed to be a harmful process leading to heart disease.

67



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 decreased fasting glucose. The highest dose also lowered fasting serum insulin, LDL, and total cholesterol while raising HDL [\[R\]](#).

68



Grapes

IMPACT

1 / 5

EVIDENCE

3 / 5

How to implement

Incorporate a serving of grapes, which is about 32 seedless grapes or approximately 1 cup, into your daily diet. You can eat them as a snack, add them to salads, or blend them into smoothies. Do this consistently for a period of at least 3 months to observe potential health benefits.

Description

Grapes are a nutrient-dense fruit rich in vitamins, fiber, and antioxidants like resveratrol. Regular consumption of grapes is associated with potential benefits for heart health, skin health, and overall well-being.

How it helps

Grapes are rich in antioxidants like resveratrol and flavonoids that can help lower harmful cholesterol levels in your body. The fiber content in grapes also binds with cholesterol, aiding its removal from your body, thus preventing cholesterol buildup.

A meta-analysis of 48 randomized controlled trials with 59 arms found that grape products significantly reduced total cholesterol, low-density lipoprotein, and triglyceride levels but had no significant effect on high-density lipoprotein [\[R\]](#).

69



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 contains antioxidants and nutrients, which can help in reducing total cholesterol levels. It can boost good cholesterol and reduce harmful fat in the blood, thus protecting your heart health.

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** [\[R\]](#).

70



Orange Juice

IMPACT

1 / 5

EVIDENCE

2 / 5

How to implement

Consume 8-ounces (about 240 milliliters) of orange juice daily, preferably in the morning with breakfast. This routine can be followed every day as part of a balanced diet for an indefinite period.

Description

Orange juice is a citrus beverage made from the juice of oranges. It is a rich source of vitamin C and other essential nutrients, contributing to immune support, skin health, and overall well-being.

How it helps

Orange juice, especially when fortified with plant sterols, can help lower total cholesterol levels by limiting the body's ability to absorb cholesterol. Additionally, the high vitamin C content in it acts as an antioxidant, preventing the oxidation of cholesterol which can lead to heart disease.

A meta-analysis of 15 trials with 639 participants found that orange juice consumption significantly lowers total cholesterol levels (WMD = -6.84 mg/dl; p = .01) and insulin resistance (WMD = -0.39; p = .04) compared to controls [\[R\]](#).

In a meta-analysis of 10 trials, orange juice consumption significantly reduced glucose, insulin, HOMA-IR, total cholesterol, LDL-C, and CRP levels compared to control, especially with ≥500 ml/day intake. No significant impact on body composition or other CVD risk factors was observed [\[R\]](#).

How to implement

Description

How it helps

In another NHANES study, people in the highest lead quartile ($>1.90 \mu\text{g/dL}$) had higher risks of elevated total cholesterol, non-HDL cholesterol, LDL cholesterol, and ApoB [R].

How to implement

Description

How it helps

Sixty mildly hypercholesterolemic individuals were divided into three groups: placebo, PEC I (50 mL of PEC/day), and PEC II (100 mL of PEC/day) for 4 weeks, with 2 weeks of follow-up without PEC consumption. Both PEC groups showed significant reductions in total cholesterol (TC) levels and LDL cholesterol (LDL-c), with no changes in other lipid parameters [R].

73



Tocotrienols

IMPACT1 / 5

EVIDENCE2 / 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

In a trial of 90 hypercholesterolemic patients, the tocotrienol-rich fraction of rice bran (100 mg/day) decreased serum total cholesterol by up to 20%. Palmvitee (40 mg alpha-tocopherol, 48 mg alpha-tocotrienol, 112 mg gamma-tocotrienol, and 60 mg delta-tocotrienol/day for 4 weeks) and gamma-tocotrienol reduced cholesterol (by 10%) in a trial of with hypercholesterolemic subjects after acclimation to the Step 1 diet for 4 and 8 weeks. However, a meta-analysis of 15 randomized controlled trials found no effects of tocotrienol on total cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#).

Tocotrienols may help by blocking an enzyme that controls the production of cholesterol in your body.

How to implement

Description

How it helps

In a study with 16 participants, consuming a high-fat, high-energy meal with Queen Garnet Plum juice or apricot juice did not result in significant post-meal differences in blood pressure, triacylglycerol, total cholesterol, oxidative markers, or inflammatory cytokines. Microvascular perfusion also showed no significant differences between the two treatments [R].

75



Garlic Supplement

IMPACT

1 / 5

EVIDENCE

2 / 5

How to implement

Take a garlic supplement, such as a garlic extract or aged garlic supplement, in a dosage of 600-1,200 mg per day, divided into separate doses. This should be taken with meals to minimize digestive issues. Continue daily for at least 8-12 weeks to evaluate its effects on health markers like blood pressure or cholesterol.

TYPICAL STARTING DOSE

200 mg

Description

Garlic is a pungent herb known for its potential health benefits, including cardiovascular support and immune system enhancement. It contains bioactive compounds that may help reduce the risk of chronic diseases and support overall well-being.

[Garlic](#) is a delicious aromatic herb that adds flavor to your food. But did you know that garlic has been a part of traditional medicine for thousands of years? **From ancient Egypt and Rome to China, people have praised garlic for its many health benefits.** Today, we can trace many of those benefits to sulfur-rich compounds found in garlic. People take garlic to help control their blood pressure and cholesterol [\[R\]](#).

Please note: *Garlic can interact with blood thinners (like aspirin, Plavix, Coumadin). If you are on blood thinners, consult your doctor before supplementing with garlic [\[R\]](#).*

How it helps

Garlic supplement (taken for at least 8 weeks) may help lower LDL cholesterol. Studied forms include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

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

However, many studies didn’t find this benefit [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

The effects may be greater for garlic powder [\[R\]](#).

Garlic seems to help by reducing the:

- Production and storage of cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#)
- Amount of cholesterol absorbed from the gut [\[R\]](#)

Please note: *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 [\[R\]](#), [\[R\]](#).*

76



Whole-Body Cryotherapy

IMPACT1 / 5

EVIDENCE2 / 5

How to implement

Participate in whole-body cryotherapy sessions by entering a cryotherapy chamber for 2-3 minutes, where temperatures drop to between -100°C to -140°C (-148°F to -220°F). These sessions should be performed 2-3 times a week for optimal benefits.

TYPICAL STARTING DOSE

2 minutes

Description

Whole-body cryotherapy involves brief exposure to extreme cold temperatures in a controlled chamber. It is used to reduce inflammation, alleviate muscle soreness, and promote recovery in athletes and individuals seeking pain relief.

How it helps

A meta-analysis of 7 studies found significantly lower levels of triglycerides after whole-body cryotherapy. Sensitivity analysis also demonstrated significantly lower levels of total cholesterol and LDL cholesterol after removing single studies. Meta-regression analysis showed that a lower baseline BMI was significantly associated with greater changes in the levels of total cholesterol and LDL [\[R\]](#).

Whole-body cryotherapy may boost metabolism and improve blood circulation, helping your body naturally reduce cholesterol levels. It could also contribute to weight loss, which often comes with improved cholesterol parameters.

Please note: *Rapid cold exposure can cause life-threatening changes to your breathing and heart rate. This is called the cold-shock response. Be cautious of any form of sudden temperature change to your environment, especially if you have heart disease or other health conditions [\[R\]](#).*

77



Coenzyme Q10 (CoQ10)

IMPACT1 / 5

EVIDENCE2 / 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 (up to 150 mg/day for 2-12 months) may help reduce total cholesterol [\[R\]](#), [\[R\]](#), [\[R\]](#).

However, a larger meta-analysis didn't find a significant benefit [\[R\]](#).

CoQ10 may help by increasing cholesterol removal from the blood [\[R\]](#), [\[R\]](#), [\[R\]](#).

Note that CoQ10 is fat-soluble. This means that **taking it with a fatty meal should help you absorb it better** [\[R\]](#).

Please note: *CoQ10 may reduce the effectiveness of blood thinners such as warfarin. Talk to your doctor before taking CoQ10* [\[R\]](#).

78



Intermittent Fasting

IMPACT1 / 5

EVIDENCE2 / 5

How to implement

Limit your daily eating to a specific window of time, typically within an 8-hour period such as from 12 pm to 8 pm, and fast for the remaining 16 hours of the day. Repeat this daily or for at least 3-4 days per week.

Description

Intermittent fasting is an eating pattern that involves cycling between periods of fasting and eating. It may help with weight management, improve metabolic health, and offer potential benefits for certain health conditions when done under proper guidance.

[Intermittent fasting](#) (IF) is a pattern of eating that alternates between periods of eating and fasting. The most popular IF method is called the 16/8 method, where you fast for 16 hours and eat during an 8-hour window.

People mainly practice IF to lose weight. Besides benefits related to weight reduction, IF may help lower the risk of [\[R\]](#):

- Alzheimer's disease
- Joint pain
- Asthma
- Multiple sclerosis
- Stroke

Some types of intermittent fasting, such as Ramadan fasting, are also practiced for religious reasons.

How it helps

In a meta-analysis of 33 studies, intermittent fasting and extended nightly fasting interventions led to significant decreases in total cholesterol, LDL cholesterol, and triglyceride levels but did not significantly affect HDL cholesterol [\[R\]](#).

In a meta-analysis of 6 studies, no statistical differences were found in blood pressure, cholesterol levels, fasting blood glucose, or insulin. Nine trials involving 540 patients found some reduction in LDL cholesterol at 2-4 months but not long-term. Other health markers showed no significant effects in a qualitative analysis of ten articles [\[R, R, R\]](#).

However, an analysis of 33 studies on intermittent fasting showed no significant effects on triglycerides, total cholesterol, or LDL cholesterol levels but a decrease in HD cholesterol and VLDL cholesterol, particularly during Ramadan fasting [\[R, R\]](#).

Intermittent fasting may help by reducing body weight and overall calorie intake.

How to implement

TYPICAL STARTING DOSE

20 mg

Description

- Gut conditions
- Heart health
- Mental health

How it helps

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 no significant effect on weight and LDL concentration [R].

80



Perilla Oil

IMPACT

1 / 5

EVIDENCE

2 / 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

Perilla oil is rich in alpha-linolenic acid, a type of omega-3 fatty acid, which can help reduce total cholesterol levels by decreasing LDL (bad) cholesterol and increasing HDL (good) cholesterol. As a result, this supplement may support heart health by maintaining a balanced cholesterol profile.

A [double-blind, randomized control trial with 182 patients with mild to moderate dementia](#) found that perilla seed oil (for 6 months) added to standard treatment did not change cognitive function. However, it **lowered total cholesterol and LDL cholesterol** [\[R\]](#).

Similarly, [a randomized controlled trial in 156 type 2 diabetic patients with dyslipidemia](#) found that perilla oil (3 g/day for 6 months) did not change serum glucose, glycated hemoglobin, C peptide, insulin or homeostasis model assessment-insulin resistance. However, it did **lower serum LDL-C and apolipoprotein B** [(2.60±0.57) mmol/L,(0.96±0.23) g/L, respectively] compared with fish oil [\[R\]](#).

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 [\[R\]](#).

81



Grapefruit Pectin

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 5 to 10 grams of grapefruit pectin supplement daily, preferably with a meal to enhance absorption. This regimen should be followed consistently for a period of at least a few weeks to assess its effects on your health.

TYPICAL STARTING DOSE

5 g

Description

Grapefruit Pectin is a fiber found in the walls of grapefruit. It aids in improving digestion and cholesterol levels. Additionally, it can help manage blood sugar levels, making it beneficial for overall heart health and metabolism.

How it helps

Grapefruit pectin is a type of fiber that binds to cholesterol in your intestines, preventing it from being absorbed into your bloodstream. This helps lower total cholesterol levels in your body.

According to one study in individuals at risk for heart disease, supplementation with grapefruit pectin (for 16 weeks) may reduce plasma cholesterol (by 7.6%), LDL cholesterol (by 10.8%), and the LDL to HDL cholesterol ratio (by 9.8%) without altering their diet or lifestyle [\[R\]](#).

Please note: *Grapefruit juice can interact with many medications, including those for high cholesterol, high blood pressure, anxiety, and more. If you are taking medications, make sure to consult your doctor before eating grapefruit or drinking grapefruit juice [\[R\]](#).*

82



Pilates

IMPACT1 / 5

EVIDENCE1 / 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 boosting cardiac health and metabolism, thereby promoting fat burning and weight loss.

83



Celery Seed

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a celery seed supplement capsule of 600-1000 mg daily with a glass of water, preferably with a meal to aid absorption and minimize potential stomach discomfort. Continue this regimen for at least 4-6 weeks to evaluate its effects on your condition.

TYPICAL STARTING DOSE

600 mg

Description

Celery seed extract is a natural supplement derived from the seeds of the celery plant, known scientifically as *Apium graveolens*. This extract is rich in various bioactive compounds, including flavonoids, linoleic acid, and volatile oils like limonene and selinene. These compounds contribute to its potential health benefits, which may include anti-inflammatory properties, support for joint health (often used in treating conditions like arthritis), and assistance in managing blood pressure levels. Celery seed extract is available in various forms, including capsules, tablets, and tinctures, and is often used in traditional medicine for its diuretic and antispasmodic effects.

How it helps

In a placebo-controlled trial of 51 patients with hypertension, supplementation with celery seed extract (1.34 g/day) for 4 weeks reduced total cholesterol by 16.37 mg/dL [R].

Celery seed is rich in a type of chemicals called phthalides that can increase bile production, aiding the liver in removing cholesterol from the body.

84



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 has beneficial nutrients like chromium and fiber which can help regulate blood sugar levels and lower cholesterol respectively. By taking this supplement, you may potentially decrease your total 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 [\[R\]](#).

85



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 decreased total cholesterol (by 11.3%) in a placebo-controlled trial of 240 participants. However, purified black tea theaflavins (77.5 mg/day, taken for 11 weeks) failed to lower it in moderately hypercholesterolemic subjects [R, R].

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

86



Black Raspberry Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 300 to 600 milligrams of black raspberry extract daily, divided into two or three doses. It can be taken with or without food. Continue for at least 6 to 12 weeks to assess its benefits.

TYPICAL STARTING DOSE

300 mg

Description

Black raspberry extract is derived from black raspberries, which are rich in antioxidants like anthocyanins. This extract is used for its potential to promote heart health, protect cells from oxidative stress, and support overall health.

How it helps

Black Raspberry Extract is rich in antioxidants and fiber that help reduce LDL (bad) cholesterol and increase HDL (good) cholesterol. Lowering total cholesterol levels minimizes the risk of heart disease and stroke.

In a 12-week study on patients with metabolic syndrome, those taking 750 mg/day of black raspberry extract exhibited significant improvements compared to the placebo group. These improvements included greater reductions in [R]:

- Total cholesterol levels and total cholesterol/HDL ratio
- Artery hardening
- Inflammatory markers such as IL-6 and TNF

87



Tyrosol

IMPACT

1 / 5

EVIDENCE

1 / 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

A nutraceutical with red yeast rice (10 mg), phytosterols (800 mg), and L-tyrosol (5 mg) taken for 8 weeks improved total and LDL cholesterol in a placebo-controlled trial of 60 patients with hypercholesterolemia [\[R\]](#).

Tyrosol may help your body to better balance the production and absorption of cholesterol.

88



Olive Leaf Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500-1000 mg of olive leaf extract daily, ideally in divided doses with meals. This regimen should be followed for at least 8 weeks to assess its effects on your health.

TYPICAL STARTING DOSE

500 mg

Description

Olive leaf extract is derived from the leaves of the olive tree and contains bioactive compounds such as oleuropein. It is believed to have various health benefits, including antioxidant and anti-inflammatory properties that may contribute to improved immune function and overall well-being.

How it helps

Supplementation with olive leaf extract reduced total cholesterol (by 0.32 mmol/L) in prehypertensive men. However, olive leaf extract had no effect on blood lipids in overweight and obese participants. A multi-ingredient supplement containing grapefruit, bitter orange, and olive extracts reduced total cholesterol in healthy volunteers [R, R, R].

In a placebo-controlled trial of 64 patients with osteopenia, supplementation with olive extract (250 mg/day) and calcium (1000 mg/day) for 12 months increased osteocalcin levels, maintained BMD, and decreased total and LDL cholesterol [R].

Olive leaf extract contains oleuropein and hydroxytyrosol, compounds known to reduce LDL cholesterol and increase HDL cholesterol, therefore supporting a healthier cholesterol balance overall.

89



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

Eating bilberries can help lower total cholesterol levels because they are high in antioxidants and fiber. These compounds help lower bad LDL cholesterol and increase good HDL cholesterol, leading to improved overall cholesterol balance.

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 [\[R\]](#).

90



Baicalin

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take baicalin supplements in doses ranging from 50 to 500 mg per day. Choose a high-quality supplement and consult with a healthcare provider before beginning, especially if taking other medications or if pregnant or breastfeeding. Baicalin should be taken with a glass of water, preferably with a meal to aid absorption, and can be divided into 1-2 doses throughout the day. Continuous use should be reassessed every 3-6 months with healthcare guidance.

TYPICAL STARTING DOSE

50 mg

Description

Baicalin is a natural compound found in certain plants like the Chinese skullcap. It has several health benefits like reducing inflammation, battling bacteria, and protecting the brain. Research also suggests it could be useful in treatments for heart and liver conditions.

How it helps

In a placebo-controlled trial of 374 patients with coronary artery disease and rheumatoid arthritis, supplementation with baicalin (500 mg/day) for 12 weeks lowered total and LDL cholesterol [\[R\]](#).

Baicalin may help by inhibiting cholesterol synthesis in the body and promoting its removal.

91



Avoid Mercury Exposure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Limit consumption of large fish such as shark, swordfish, king mackerel, and tilefish, which are known to have higher mercury levels. Opt for smaller fish like salmon, shrimp, pollock, and catfish, and limit seafood intake to 8-12 ounces (two to three servings) per week. Check and follow local advisories regarding the safety of fish caught by family and friends in your local lakes, rivers, and coastal areas.

Description

Avoiding exposure to mercury, a toxic heavy metal found in certain seafood and environmental sources, is essential to prevent adverse health effects, including neurological damage and developmental issues.

Mercury and other [heavy metals](#) are found in the soil, water, food, and some commonly-used household products. They adversely affect the environment and living organisms. According to some studies, mercury is considered **the most toxic heavy metal** in the environment [\[R\]](#), [\[R\]](#).

A major source of mercury exposure is seafood, especially large fish such as [\[R\]](#):

- Tuna
- Shark
- Swordfish

How it helps

Avoiding mercury exposure doesn't directly influence total cholesterol levels. However, mercury can disrupt the functions of various organs and systems in your body, indirectly, it may affect your body's ability to manage cholesterol.

A representative sample of 2591 Korean adults from the Korean National Environmental Health Survey; After adjusting for demographic and socioeconomic factors, the proportional changes in serum lipid levels were significantly associated with increases in BPb, BHg, and UHg levels (p for trend < 0.05). Overall, BPb, BHg, and Uhg levels positively correlated with dyslipidemia [\[R\]](#).

MIXED: This study analyzed the mercury (Hg) exposure and cholesterol profiles in 3951 adults based on fish consumption frequency. Blood Hg levels were higher in groups with high cholesterol, low HDL-C, and high triglycerides (TG). Blood Hg levels increased with more frequent fish consumption, but cholesterol profiles didn't consistently follow this trend. Elevated blood Hg levels were linked to higher total cholesterol (TC) and LDL-C levels, but this effect waned in groups with frequent fish consumption [\[R\]](#).

92



Mastic Gum

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 350-1000 mg of mastic gum in capsule form daily, usually divided into two doses - morning and evening, with a glass of water. Follow these instructions for at least two weeks to see improvements in digestive health.

TYPICAL STARTING DOSE

350 mg

Description

Mastic gum is a natural resin with potential digestive health benefits. It's believed to support gastrointestinal comfort and may help alleviate symptoms of conditions like indigestion and acid reflux.

[Mastic](#) is a resin from the mastic tree. The mastic tree is native to the Greek island of Chios [\[R\]](#), [\[R\]](#).

Mastic is consumed as a chewing gum, used in cosmetics, and added to foods and drinks as a sweetener. People also take it to potentially help with gut problems [\[R\]](#).

How it helps

- In a study of 156 volunteers, daily consumption of 1 g of crude Chios mastic gum reduced total cholesterol and fasting plasma glucose after 8 weeks. The effect was more pronounced in overweight and obese individuals. Polymer-free mastic and powder mastic had no significant impact on these parameters, nor did they affect LDL, HDL, triglycerides, uric acid, or CRP levels [\[R\]](#).
- In a study of 133 subjects aged over 50, those in the high-dose group consuming 5 g of mastic powder daily experienced significant reductions in serum total cholesterol, LDL, total cholesterol/HDL ratio, lipoprotein (a), apolipoprotein A-1, apolipoprotein B, ALT, AST, and GGT levels [\[R\]](#).
- Mastic gum may help by blocking cholesterol synthesis in the liver.

93



Apples

IMPACT

1 / 5

EVIDENCE

1 / 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

Eating apples can help lower total cholesterol because they are rich in dietary fiber, especially soluble fiber, which reduces the absorption of cholesterol into your bloodstream. Apples are also packed with polyphenols, including a substance called flavonoid epicatechin, known to lower blood pressure and overall LDL cholesterol.

Consuming two apples daily reduced total and LDL cholesterol, triglycerides, and cell adhesion molecules while increasing uric acid and microvascular vasodilation in mildly hypercholesterolemic volunteers. No impact on blood pressure or other cardiovascular markers was observed [\[R\]](#).

A 5x4 weeks dietary crossover study with 23 healthy volunteers investigated apple-related supplements' effects on lipoproteins and blood pressure. Whole apples, pomace, and cloudy juice showed potential LDL-cholesterol reduction, while clear juice increased LDL-cholesterol. No impact on other parameters was observed [\[R\]](#).

A randomized crossover trial with 30 healthy participants found that apple, spinach, and apple+spinach treatments improved blood vessel function and lowered blood pressure compared to the control, with apple and spinach also reducing systolic blood pressure significantly. No significant impact on diastolic blood pressure was observed [\[R\]](#).

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 [\[R\]](#).

However, a double-blind study with 30 hypercholesterolemic volunteers found no difference in vascular function or cardiovascular risk factors after consuming polyphenol-rich and polyphenol-poor apples for 4 weeks each [\[R\]](#).

94



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

Lutein is an antioxidant that, when consumed, has a potential minor effect in lowering total cholesterol levels and protecting LDL cholesterol from oxidation. However, mainstream medical advice typically emphasizes a balanced diet, exercise, and possibly prescribed medication as a comprehensive strategy for managing total cholesterol levels.

In a study of early atherosclerosis patients, lutein supplementation (20 mg/day for 3 months) increased serum lutein, reduced inflammatory markers (IL-6, MCP-1), and improved LDL and triglyceride levels, suggesting a potential role in early atherosclerosis management [\[R\]](#).

A 10-week double-blind trial studied lutein's effect on obese middle-aged individuals following a low-calorie diet. Results showed lutein reduced visceral fat and cholesterol levels compared to a placebo [\[R\]](#).

However, another meta-analysis found that oral intake of L/Z had no significant impact on total cholesterol (TC) and LDL-cholesterol levels but increased HDL-cholesterol in older adults [\[R\]](#).

95



Avoid Cadmium Exposure

IMPACT1 / 5

EVIDENCE1 / 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 exposure correlated with elevated total cholesterol and LDL cholesterol levels and decreased HDL cholesterol levels [\[R\]](#).

Cadmium is known to disrupt lipid metabolism, potentially leading to an increase in LDL cholesterol and a decrease in HDL cholesterol.

96



Colostrum

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take colostrum supplements orally, typically 20 to 60 grams daily, split into two to three doses. It is recommended to start with a lower dose and gradually increase as needed. This supplement can be taken for varying durations, from a few weeks to several months, depending on the health goals and responses observed.

TYPICAL STARTING DOSE

20 g

Description

Colostrum is the first milk produced by mammals, including humans, after giving birth. It is rich in nutrients and antibodies and is believed to support newborns' immune systems and overall health.

Colostrum, or “first milk,” is the very first type of milk produced right after a mammal gives birth. It supports the newborn’s immune system and provides a rich source of nutrients and growth factors [R].

People take colostrum to boost immunity and exercise performance [R].

How it helps

Colostrum, or first milk, can improve total cholesterol levels as it contains bioactive components that reduce LDL (bad cholesterol) and increase HDL (good cholesterol). It may also improve gut health, potentially influencing the body's management of cholesterol.

This study investigated the effects of bovine colostrum (BC) on Type 2 diabetes patients. BC supplementation for 4 weeks reduced blood glucose, cholesterol, and triglyceride levels, potentially benefiting diabetic patients by improving these parameters [R].

97



Ubiquinol

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 100 to 200 mg of ubiquinol daily, preferably with a fatty meal to enhance absorption. This dosage can be adjusted based on individual health needs and under the guidance of a healthcare professional. Continue this supplementation daily for ongoing support of heart health and energy levels.

TYPICAL STARTING DOSE

100 mg

Description

Ubiquinol is the reduced form of coenzyme Q10 (CoQ10), a compound that plays a crucial role in energy production within cells. It is used as a supplement to support heart health, improve energy levels, and combat oxidative stress.

How it helps

Ubiquinol, an active form of Coenzyme Q10, aids in lowering total cholesterol by improving the functioning of cells in the body, and reducing harmful LDL cholesterol while raising beneficial HDL cholesterol. By doing so, it helps regulate the cholesterol levels in your blood, promoting a healthy heart and circulatory system.

In fibromyalgia patients, 100 mg/day ubiquinol-10 supplementation for 12 weeks increased CoQ10 levels, improved cholesterol metabolism, and reduced chronic fatigue scores, as measured by the Chalder Fatigue Scale [\[R\]](#).

98



Lactobacillus Paracasei

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a supplement containing Lactobacillus paracasei daily, with a dose of around 10 billion colony-forming units (CFUs). Consume the supplement with or without food, but consistently at the same time each day for at least 4 weeks to observe beneficial effects.

TYPICAL STARTING DOSE
10 billion CFU

Description

Lactobacillus paracasei is a beneficial probiotic strain that can support digestive health and contribute to a balanced gut microbiome. It may help improve gut function, enhance nutrient absorption, and bolster the immune system, promoting overall well-being.

[Lactobacillus paracasei](#) is a type of bacteria naturally found in the intestine. It is considered a [probiotic bacteria](#), which means “good” bacteria that has health benefits when taken in adequate amounts [\[R\]](#).

L. paracasei is used in the production of the following fermented foods [\[R\]](#):

- Yogurt
- Cheese
- Sauerkraut

It may help [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Improve gut and skin health
- Boost immunity
- Fight allergies

How it helps

A probiotic drink with *L. paracasei* LPC37 combined with bread enriched with pentacalcium hydroxy-triphosphate lowered total and LDL cholesterol in a placebo-controlled trial of 32 women [\[R\]](#).

Lactobacillus paracasei potentially lowers total cholesterol by using cholesterol present in the body for its own growth. It also improves bile acid reabsorption, preventing cholesterol from being reabsorbed back into the body.

99



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

Eating guava can help lower your total cholesterol because it's rich in dietary fiber and pectin, which helps to reduce low-density lipoprotein (bad cholesterol) levels. Additionally, it contains vitamin C and potassium, nutrients that support the health of your heart and blood vessels.

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%) [\[R\]](#), [\[R\]](#).

100

Gamma-Oryzanol

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 300-600mg of gamma-oryzanol supplements daily, ideally with meals to enhance absorption. This dosage can be divided into two to three smaller doses throughout the day. Continue this supplementation for 4 to 9 weeks to observe potential benefits.

Description

Gamma oryzanol is a compound found in rice bran oil and other grains. It is believed to have antioxidant properties and may be used to support cardiovascular health and reduce symptoms of menopause.

How it helps

In a placebo-controlled trial of 30 mildly hypercholesterolemic men, consuming 50 g/day of rice bran oil (with 0.05 or 0.8 g/day gamma-oryzanol) for 4 weeks lowered total cholesterol by 6.3% [\[R\]](#).

Gamma-oryzanol may reduce cholesterol absorption while enhancing its elimination.

101

Coffee Cherry Extract

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 100-300 mg of coffee cherry extract supplement daily, preferably in the morning to avoid any potential interference with sleep. This can be consumed with or without food, and should be integrated into your daily routine for ongoing support of brain health.

TYPICAL STARTING DOSE

100 mg

Description

Coffee cherry extract, derived from the fruit surrounding coffee beans, contains antioxidants like chlorogenic acids. It has been studied for its potential to support cognitive function and overall antioxidant protection.

How it helps

In a placebo-controlled trial of 61 healthy volunteers, consuming coffee cherry pulp juice (14 g, 2x/day) for 12 weeks lowered total and LDL cholesterol [\[R\]](#).

102



Chia Seeds

IMPACT

1 / 5

EVIDENCE

1 / 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 soluble fiber and omega-3 fatty acids, components that help to decrease bad (LDL) cholesterol levels and raise good (HDL) cholesterol. This is beneficial in controlling total cholesterol levels in your body.

103



Curcumin Longvida

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 400-1000 mg of Longvida curcumin once daily, preferably with a meal to enhance absorption. It's recommended to continue this supplement intake daily for at least 8-12 weeks to evaluate its benefits.

TYPICAL STARTING DOSE

1 g

Description

Curcumin Longvida is a specialized formulation of curcumin designed for improved bioavailability and brain health support. It has been studied for its potential cognitive benefits and ability to cross the blood-brain barrier.

How it helps

In a placebo-controlled trial of 60 older adults, supplementation with curcumin Longvida (400 mg/day) for 4 weeks lowered total and LDL cholesterol [\[R\]](#).

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

104

White Kidney Bean Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a supplement containing 500 to 1500 mg of white kidney bean extract before meals containing carbohydrates, once to twice daily. It's advisable to start with the lower dose to assess tolerance and gradually increase to the desired dose as directed on the product label or by a healthcare provider.

TYPICAL STARTING DOSE

500 mg

Description

White kidney bean extract contains compounds that inhibit the digestion of carbohydrates, potentially supporting weight management by reducing the absorption of calories from starchy foods.

[White kidney bean](#) is a variety of the common bean (*Phaseolus vulgaris*), which is native to South America. People use the extract of white kidney bean to [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Decrease appetite
- Support weight loss

How it helps

In a non-placebo-controlled trial of 73 adults with elevated LDL cholesterol, consuming 180 g/day of canned beans (daily rotation of black, navy, pinto, dark red kidney, and white kidney beans) lowered total and LDL cholesterol [\[R\]](#).

Bean extract contains soluble fiber that binds to cholesterol and bile acids, facilitating their removal from the body. Additionally, it may also inhibit cholesterol production in the liver.

105



Purple Sweet Potato

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate 100-150 grams of purple sweet potato into your diet 3-4 times a week. This can be achieved by baking, boiling, or including it in smoothies.

Description

Purple sweet potatoes are a colorful and nutritious variety of sweet potatoes that originated in southeast Asia. They are packed with antioxidants, fiber, and vitamins, especially vitamin A and C, which supports eye health and overall immunity.

How it helps

In a non-placebo-controlled trial of 24 postmenopausal women, replacing their staple food with purple sweet potato (390 g, 2-3x/day) for 30 days **decreased total cholesterol by 5.9%** [\[R\]](#).

Purple sweet potatoes are rich in anthocyanins and fiber. This may help lower your total cholesterol levels. The anthocyanins inhibit cholesterol absorption in your body and fiber aids in removing it from your system.

106



Clostridium Butyricum

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take Clostridium butyricum as a supplement in capsule or powder form, typically ranging from 300 to 450 mg per day. This should be consumed with a glass of water, ideally before meals. Continue daily for at least four weeks to evaluate its benefits.

TYPICAL STARTING DOSE

300 mg

Description

Clostridium butyricum is a probiotic bacterium believed to support digestive health by producing beneficial short-chain fatty acids in the gut. It is used in some probiotic supplements to promote gut microbiome balance and overall well-being.

How it helps

Clostridium butyricum, a probiotic, helps by producing butyrate, a short chain fatty acid that can decrease cholesterol production in the liver. This may lead to a reduction in total cholesterol levels in the body.

In a non-placebo-controlled trial of 96 patients with NAFLD, supplementation with C butyricum as an add-on to rosuvastatin **improved intestinal flora imbalance, reduced blood lipid (total cholesterol, triglycerides, free fatty acids) levels, and alleviated liver fibrosis and liver function damage markers (bilirubin, AST, ALT)** [\[R\]](#).

107



Avoid PFAS Exposure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To avoid PFAS exposure, choose products that are labeled PFAS-free, especially when selecting cookware, cosmetics, and clothing. Reduce the consumption of packaged and fast foods since the packaging often contains PFAS. Use a water filter that is certified to remove PFAS compounds for your drinking and cooking water.

Description

Avoiding per- and polyfluoroalkyl substances (PFAS) exposure means avoiding products and environments contaminated with these chemicals, which can help prevent potential health issues like hormonal disruption and adverse effects on liver and immune function.

How it helps

A study of 1067 participants associated PFAS with increased levels of LDL-C and TC [\[R\]](#).

108



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 [\[R\]](#), [\[R\]](#).

109



Okra

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take okra supplements in the form of capsules or powder. If using capsules, consume 1-2 capsules daily with water, preferably with a meal. If using powder, mix one teaspoon into a glass of water or into a smoothie once daily. Continue this routine for at least 8-10 weeks to observe potential health benefits.

Description

Okra is a flowering plant of the mallow family, rich in vitamins, minerals, and fiber, offering potential benefits for digestive health, blood sugar control, and overall nutrition.

How it helps

In a placebo-controlled trial with 60 type 2 diabetes patients, consuming okra powder blended with yogurt for 8 weeks reduced total cholesterol and LDL-cholesterol. Another placebo-controlled trial involving overweight and obese participants found that a combination of dehydrated okra pods and inulin lowered total and LDL-cholesterol levels in those with high baseline levels over 6.2 mmol/L after 12 weeks of supplementation [\[R\]](#), [\[R\]](#).

Okra is rich in fiber that binds to excess cholesterol in your system, helping your body eliminate it.

110



Chromium

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a 200 mcg chromium supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

200 mcg

Description

Chromium is a trace mineral that plays a role in insulin sensitivity and glucose metabolism. Adequate chromium intake through diet or supplements may help support blood sugar control and overall metabolic health.

[Chromium \(Cr\)](#) is a trace element. It helps regulate carb, fat, and protein breakdown [\[R\]](#).

Women need 20-25 micrograms (mcg) of chromium per day, while men need 30-35 mcg [\[R\]](#).

It’s easy to get chromium from your diet. Good sources include [\[R\]](#):

- Grape and orange juice
- Ham
- Beef
- Lettuce

You can also get chromium from supplements [\[R\]](#).

How it helps

Chromium plays a significant role in the metabolism of fats and carbohydrates, which can help to control cholesterol levels. With consistent use, it could assist in reducing total cholesterol levels by improving lipid profiles and enhancing glucose metabolism.

In a double-blind crossover study, 28 volunteers received either chromium picolinate or a placebo for 42 days, with a 14-day break between treatments. Chromium picolinate significantly reduced total cholesterol, LDL cholesterol, and apolipoprotein B levels, while increasing apolipoprotein A-I levels and slightly raising HDL cholesterol [\[R\]](#).

111



Onion

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate raw or cooked onions into your daily meals, aiming for about a half to one whole onion per day, depending on your taste preference and tolerance. This can be done by adding onions to salads, sandwiches, soups, or as a cooked ingredient in various dishes.

Description

Onions are a flavorful and versatile vegetable grown around the world. They are rich in antioxidants, vitamins, and minerals, like B-vitamins, vitamin C, phosphorus, and magnesium. Incorporating onions into your diet may promote heart health, improve immune function, and contribute to overall well-being.

How it helps

In a study of overweight or obese women with PCOS, high onion intake (2x40-50g/day for overweight and 2x50-60g/day for obese) reduced total and LDL cholesterol, while not affecting other parameters [R].

112



Selenium Supplements

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 50 mcg of selenium supplements once daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

50 mcg

Description

Selenium is a trace mineral found in Brazil nuts and many other foods as well as supplements. It is an essential nutrient that plays a crucial role in maintaining the body's antioxidant defenses and supporting thyroid function.

[Selenium](#) supports [R]:

- Reproduction
- Thyroid function
- DNA production
- Immune response

Adults should be getting **55 micrograms** of selenium per day. Selenium supplements are available for people who can't meet their needs with a balanced diet [R].

How it helps

Selenium supplementation may lead to a slight reduction in total cholesterol by 0.13-0.71% [R, R, R, R].

113



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

Eating kiwifruit can help reduce total cholesterol levels because it contains high amounts of fiber, which can bind to cholesterol in your intestines and prevent it from being absorbed into your body. The high levels of antioxidants in kiwi also prevent the oxidation of LDL (bad) cholesterol, a process which often leads to 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].

114



Akkermansia

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take Akkermansia muciniphila as a supplement in capsule form, usually one capsule per day. It is best consumed with a glass of water, preferably in the morning. Follow this routine for a duration as advised by a healthcare provider, but commonly for a period of at least 8 to 12 weeks to observe potential benefits.

Description

Akkermansia is a type of gut bacteria that resides in the human digestive system. It has been studied for its potential role in gut health and its association with metabolic and immune functions.

How it helps

In a placebo-controlled trial of 32 overweight or obese participants with insulin resistance, supplementation with *Akkermansia muciniphila* (10^10 cfu/day) for 3 months reduced total cholesterol levels [R].

Akkermansia may increase the levels of good gut bacteria that help regulate cholesterol metabolism.

115



Royal Jelly

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a royal jelly supplement daily, starting with a dose of approximately 300 mg to 500 mg. It can be consumed either in capsule form or directly, depending on your preference, for a period ranging from 3 to 6 months to observe the potential health benefits.

TYPICAL STARTING DOSE

300 mg

Description

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

Royal jelly may help by inhibiting cholesterol absorption in your gut and reducing its production in your liver.

In 2 placebo-controlled trials of 55 participants with mild hypercholesterolemia, taking royal jelly capsules (3.15-6 g/day) for 1-3 months **lowered total, LDL, and VLDL cholesterol** [R].

116



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 rich in fulvic acid, which can lower high cholesterol levels when combined with a healthy diet and regular exercise. It disrupts the metabolism and absorption of fats, thereby reducing total cholesterol in the body.

In a [placebo-controlled trial of 30 medical students](#), supplementation with shilajit (2 g) for 45 days **lowered total cholesterol levels (by 20.2 mg/dL)** [\[R\]](#).

117



Glutathione supplements

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take glutathione supplements orally, usually in pill or powder form, with a recommended dose ranging from 500mg to 1000mg daily, divided into two doses. It's best taken on an empty stomach or as directed by a healthcare professional. Continuous use is advised for sustained benefits, but consulting with a healthcare provider for personalized advice and duration is important.

Description

Glutathione (GSH) is your body’s strongest antioxidant. It has an enormous capacity to combat [oxidative stress](#) and neutralize harmful free radicals. Chemically speaking, glutathione is a tripeptide made up of 3 amino acids [\[R\]](#):

- [Glutamate](#)
- **Cysteine**
- [Glycine](#)

Low glutathione levels have been linked to cognitive decline, age-related disease, and general mortality among the elderly [\[R, R\]](#).

People take glutathione supplements to help with:

- Oxidative stress and detox
- Immune system support
- Skin aging and damage
- Exercise recovery
- Chronic diseases such as type 2 diabetes, Alzheimer's disease, Parkinson's disease, or COPD

How it helps

Sublingual glutathione supplementation decreased total and LDL cholesterol in a placebo-controlled trial of 16 men with cardiovascular risk factors. This suggests that glutathione can be a beneficial strategy for preventing vascular damage in such patients [\[R\]](#).

118



Coconut

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate coconut into your diet by adding 1-2 tablespoons of unsweetened coconut flakes to your breakfast cereal or smoothie daily. You can also replace cooking oils with virgin coconut oil when sautéing or baking, not exceeding 2 teaspoons per day to maintain a balanced intake of dietary fats.

Description

Coconut is a versatile fruit with potential health benefits, including providing healthy fats and dietary fiber. It can support satiety, digestion, and overall nutritional wellness when incorporated into a balanced diet.

How it helps

Coconut flakes contain medium-chain triglycerides (MCTs) that help in increasing the "good" HDL cholesterol in our body. However, coconut-based products are also rich in saturated fats which can elevate "bad" LDL cholesterol, making the overall benefit rather mixed.

Different test foods were evaluated, including corn flakes, oat bran flakes, and corn flakes with 15% and 25% dietary fiber from coconut flakes. Results showed that all test foods, except cornflakes, significantly reduced serum total and LDL cholesterol levels. Additionally, serum triglycerides were reduced for all test foods, particularly in individuals with moderately raised cholesterol levels. In conclusion, both 15% and 25% coconut flakes effectively lowered cholesterol and triglycerides in these individuals [R].

119



Lactobacillus Salivarius

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a probiotic supplement containing Lactobacillus salivarius daily, preferably with a meal to enhance absorption. The exact dosage can vary, but a common amount is around 10 billion CFUs (colony forming units). It is generally recommended to continue taking the probiotic for at least four weeks to observe benefits.

TYPICAL STARTING DOSE

10 billion CFU

Description

Lactobacillus saliverius is a beneficial probiotic strain that can support digestive health and contribute to a balanced gut microbiome. It may help improve gut function, enhance nutrient absorption, and bolster the immune system, promoting overall well-being.

How it helps

In a placebo-controlled trial of 45 healthy volunteers, supplementation with *L. salivarius* UBL S22 for 6 weeks lowered total cholesterol and LDL cholesterol, especially in combination with prebiotic fructo-oligosaccharide [R].

L. salivarius may help by absorbing cholesterol in the gut, thus preventing it from being absorbed into the bloodstream.

120



Salvia Miltiorrhiza

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 200-600mg of Salvia miltiorrhiza extract in capsule or tablet form daily, divided into two or three doses. This should be taken with water, preferably 30 minutes before meals. Continue for a period of 8 to 24 weeks for noticeable effects.

Description

Salvia miltiorrhiza, also known as Danshen, is a traditional Chinese medicinal herb. It is primarily used for its potential cardiovascular benefits, including improving blood circulation and reducing the risk of heart-related conditions. It contains various compounds, including tanshinones and salvianolic acids.

How it helps

In a non-placebo-controlled trial of 81 patients with hyperlipidemia, supplementation with *Salvia miltiorrhiza* for 3 months decreased total cholesterol, LDL cholesterol, and triglycerides as effectively as simvastatin [\[R\]](#).

Salvia miltiorrhiza may help by inhibiting cholesterol synthesis in the body.

121



Eccentric Exercise

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Eccentric exercise is a type of exercise where the muscle lengthens as it contracts. It has been shown to have a number of health benefits, including increased muscle strength, improved bone density, and reduced risk of injury.

How it helps

Practicing eccentric exercise (30 min/day) for 8 weeks improved blood lipid profile, insulin resistance, and energy expenditure in a non-placebo-controlled trial of 20 women [\[R\]](#).

Eccentric HIIT practiced for 2 weeks lowered total and LDL cholesterol better than concentric HIIT in a non-placebo-controlled trial of 20 men [\[R\]](#).

122



Black Chokeberry

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Incorporate black chokeberry (*Aronia melanocarpa*) in your diet by consuming 100-200 grams of fresh berries daily. If using a concentrated form like juice or extracts, follow the manufacturer's instructions, usually around 100 ml of juice or 500 mg of extract per day, for at least 8-10 weeks to observe potential health benefits.

Description

Black chokeberry is a fruit known for its high content of antioxidants and potential health benefits. It may support cardiovascular health and provide immune system support when incorporated into a balanced diet.

How it helps

Black chokeberries are packed with antioxidants, specifically, anthocyanins, which can decrease bad cholesterol (LDL) levels. Regular consumption of black chokeberries can help in reducing total cholesterol levels, promoting heart health.

In a [non-placebo-controlled trial of 41 patients with type 1 diabetes](#), consuming black chokeberry juice (200 mL/day) for 3 months **lowered fasting glucose (by 4.18 mmol/L), HbA1c, and TC (by 1.4 mmol/L)** [\[R\]](#).

In a [placebo-controlled trial of 143 patients with metabolic syndrome](#), supplementation with black chokeberry extract for 4 weeks **decreased LDL-C** [\[R\]](#).

123



Lactobacillus Gasseri

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a *Lactobacillus gasseri* supplement containing around 10 billion colony-forming units (CFUs) daily, ideally with a meal, for at least 2 weeks to 4 months to observe benefits. Continuous daily intake is recommended for ongoing support.

TYPICAL STARTING DOSE

10 billion CFU

Description

Lactobacillus Gasseri is a beneficial probiotic strain that can support digestive health and contribute to a balanced gut microbiome. It may help improve gut function, enhance nutrient absorption, and bolster the immune system, promoting overall well-being.

How it helps

In a placebo-controlled trial of 32 hypercholesterolemic patients, ingesting a synbiotic with *L. gasseri* CHO-220 and inulin for 12 weeks reduced total cholesterol by 7.84% [\[R\]](#).

L. gasseri may help by reducing the amount of cholesterol absorbed from your diet. It works in your gut to break down cholesterol and prevent it from getting into your bloodstream.

124



Rutin

IMPACT1 / 5

EVIDENCE1 / 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 by enhancing the ability of your body to utilize and dispose of cholesterol.

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* [\[R\]](#).

125



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].

126



Bitter Melon Supplement

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a bitter melon supplement in the form of capsules or tablets, typically ranging from 500 mg to 1000 mg per day, split into two to three doses before meals. It's recommended to follow the dosage instructions on the product label or consult a healthcare provider for personalized advice. Continue for as long as recommended by the healthcare provider, usually a few weeks to months, to monitor effectiveness and tolerance.

TYPICAL STARTING DOSE

500 mg

Description

Bitter melon supplements are often used in traditional medicine for their potential to support blood sugar control. They contain compounds that may help regulate glucose metabolism and promote overall metabolic health.

How it helps

Bitter Melon supplement aids in controlling total cholesterol by reducing the levels of bad cholesterol (LDL), while increasing good cholesterol (HDL) in the body. It enhances fat metabolism and exhibits anti-atherogenic properties that protect your blood vessels from a cholesterol buildup.

In a 10-week study with 95 diabetes patients, three groups were formed: Group I and Group II received bitter melon (2 g/day and 4 g/day, respectively), while Group III received glibenclamide (5 mg/day). Parameters such as blood lipids, atherogenic index, body weight, and SBP improved in Group I and Group II but worsened in Group III [R].

In a 12-week study, 12 patients received 2000 mg/day of Momordica charantia (MC), while 12 received a placebo. Although there were reductions in body weight, BMI, WC, and body fat percentage in the MC group, they did not reach statistical significance. However, significant decreases in triglycerides (TG) and very low-density lipoprotein (VLDL) levels were observed with MC supplementation [R].

127



Avoid Phthalate Exposure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To avoid phthalate exposure, check product labels and choose phthalate-free options for personal care items, plastics (look for recycling codes 3 and 7 or the letters 'V' or 'PVC'), and household products. Additionally, reduce the use of plastic containers for food storage, especially those not marked as 'phthalate-free', and avoid microwaving food in plastic containers. Aim to make these changes consistently in your daily life for long-term health benefits.

Description

Avoiding phthalate exposure involves choosing phthalate-free products, such as personal care items and plastics, to minimize potential endocrine-disrupting effects and protect reproductive and hormonal health.

How it helps

Reducing phthalate exposure may indirectly help with total cholesterol levels. Phthalates, often found in plastics and personal care products, can disrupt hormonal balance and lead to weight gain, which is a risk factor for high cholesterol.

In a study of 474 adults, serum phthalate concentrations were associated with increased systolic blood pressure and cholesterol levels. The study found significant effects for DEHP, DMP, and DBEP [\[R\]](#).

128



Deep Seawater

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate deep seawater into your diet by drinking 1-2 glasses per day, preferably one in the morning and another in the evening. Deep seawater can also be used as an alternative to regular water for cooking, such as in soups or for boiling rice, to enhance mineral intake.

Description

Deep seawater is water found really deep in the ocean where light can't reach. It is very pure and filled with healthy minerals due to lack of pollution. Because of these benefits, it can be used to improve health and wellness.

How it helps

A study in 42 hypercholesterolemic volunteers found that drinking filtered deep seawater (1050 mL/day for 6 weeks) decreased total cholesterol, LDL cholesterol, and TBARS levels. In a study of 78 participants with hypercholesterolemia, drinking deep sea water for 8 weeks reduced total cholesterol in those with moderately high levels, LDL cholesterol in those with high values, and lipoprotein A levels in all participants regardless of baseline levels [\[R\]](#), [\[R\]](#).

Please note: Seawater contains much more salt than the human body can handle. Hence, the human body can safely ingest only small amounts of seawater. Drinking seawater may increase the risk of gastrointestinal infections [\[R\]](#), [\[R\]](#).

129



Bifidobacterium Lactis HN019

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 HN019 is a strain known for its resilience to stomach acid and bile, which allows it to survive the harsh conditions of the gastrointestinal tract and colonize the gut effectively. It may help improve gastrointestinal function, alleviate symptoms of irritable bowel syndrome, enhance immune response, and reduce the risk of certain infections.

How it helps

In a placebo-controlled trial of 51 patients with metabolic syndrome, consuming 80 mL/day milk fermented with *Bifidobacterium lactis* HN019 (2.72 x 10^10 cfu/day) for 45 days reduced BMI, total cholesterol, LDL cholesterol, TNF-alpha, and IL-6 [\[R\]](#).

130



Prune Essence Concentrate

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 30 milliliters of prune essence concentrate daily, ideally in the morning. It can be consumed directly or diluted in a glass of water. Continue this routine daily for at least 4 weeks to assess its benefits.

Description

Prune essence concentrate is a concentrated form of prune juice that retains the nutritional benefits of prunes, including dietary fiber and sorbitol. It is known for its potential to support digestive regularity and provide a natural source of energy.

How it helps

Prune Essence Concentrate contains soluble fiber, which binds to cholesterol in the digestive system and helps remove it from your body. Additionally, prunes have antioxidant properties that can prevent the oxidation of cholesterol, thereby reducing the risk of atherosclerosis and heart disease.

Sixty mildly hypercholesterolemic individuals were divided into three groups: placebo, PEC I (50 mL of PEC/day), and PEC II (100 mL of PEC/day) for 4 weeks, with 2 weeks of follow-up without PEC consumption. Both PEC groups showed significant reductions in total cholesterol (TC) levels and LDL cholesterol (LDL-c), with no changes in other lipid parameters [R].

131



Raspberries

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate a half cup to one cup of fresh or frozen raspberries into your daily diet. You can add them to your breakfast cereal, blend them into a smoothie, or snack on them throughout the day.

Description

Raspberries are a type of berry native to Europe and Asia, known for their high vitamin C and dietary fiber content. They have astringent properties, can support immune health, and aid in digestion.

How it helps

In individuals with prediabetes and insulin resistance, supplementation with red raspberries (RRB) improved hepatic insulin resistance and reduced total and LDL cholesterol. Adding fructo-oligosaccharide (FOS) to RRB further improved β -cell function. RRB alone increased Eubacterium eligens and decreased Ruminococcus gnavus, while RRB + FOS increased Bifidobacterium spp. and decreased Blautia wexlerae in the gut microbiota. These changes were associated with metabolic improvements, suggesting potential benefits of (poly)phenol/FOS-microbial interactions on host metabolism [R].

24 participants received 280 g/d of raspberries for 8 weeks. Following raspberry consumption, a significant decrease in triglycerides, cholesterol and CRP levels were found in responders, as compared to non-responders [R]

In a 12-week study on patients with metabolic syndrome, those taking 750 mg/day of black raspberry extract exhibited significant improvements compared to the placebo group. These improvements included greater reductions in total cholesterol levels and total cholesterol/HDL ratio, increased brachial artery flow-mediated dilatation (baFMD), and greater reductions in inflammatory markers such as IL-6 and TNF [R].

132



American Ginseng

IMPACT1 / 5

EVIDENCE1 / 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 is believed to have a positive impact on total cholesterol as it contains compounds that may boost heart health by lowering the amount of LDL 'bad cholesterol'. This assists in maintaining a healthier balance of cholesterol in your body.

In a [placebo-controlled trial of 24 patients with type 2 diabetes](#), American ginseng (3 g/day for 8 weeks) **increased the HDL:LDL ratio** [\[R\]](#).

The coadministration of American ginseng (3 g/day) and konjac fiber taken for 12 weeks **reduced LDL-cholesterol (by 8.3%), non-HDL cholesterol (by 7.5%), total cholesterol (by 5.7%), total cholesterol:HDL ratio (by 4.1%), ApoB (by 9%), and ApoB:ApoA1 ratio (by 14.6%)** in a [placebo-controlled trial of 30 patients with type 2 diabetes](#) [\[R\]](#).

In a [non-placebo-controlled trial of 84 patients with coronary heart disease and blood glucose abnormality](#), American ginseng used as an add-on to conventional medicine was **more effective at lowering total cholesterol and LDL-cholesterol than conventional medicine alone** [\[R\]](#).

133

Exercise and Sauna

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Regular exercise offers a wide range of health benefits, including improved cardiovascular fitness, enhanced muscle strength, better mental health, and reduced risk of chronic diseases such as obesity, diabetes, and heart disease. Engaging in physical activity promotes overall well-being and longevity.

Sauna is a form of whole-body hot application that originated in Finland. Saunas are small rooms that use dry heat from a stove or hot rocks to raise the temperature of the room to 80-100 °C with very low humidity (10-20%) [\[R\]](#).

[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 **30 minutes of moderate physical activity every day**, including walking. **Getting a mix of cardio (at least 150 min/week) and strength training (2 times/week) may be optimal.**

People mainly use saunas to help [\[R\]](#):

- Detox
- Increase blood circulation
- Reduce pain
- Promote relaxation

How it helps

A study compared exercise with and without sauna bathing in sedentary adults with cardiovascular risk factors. Adding sauna to regular exercise significantly enhanced cardiorespiratory fitness, reduced systolic blood pressure, and lowered cholesterol, suggesting that sauna bathing is an effective complement to exercise for cardiovascular improvement [\[R\]](#).

134



Cabbage

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate fresh cabbage into your diet by adding it to salads, soups, stews, or as a side dish steamed or lightly sautéed. Aim for at least 2-3 servings of cabbage per week, where one serving is approximately one cup chopped or two leaves.

Description

Cabbage is a cruciferous vegetable rich in vitamins, fiber, and antioxidants. It's known for its potential to support digestive health, provide essential nutrients, and contribute to a balanced diet.

Cabbage is a great source of vitamins C and K, with decent amounts of other vitamins and minerals like folate and manganese. A ½ cup serving provides 16 mg of vitamin C or 18%DV.

How it helps

Eating cabbage can help lower total cholesterol levels as it contains soluble fiber and plant sterols, which block cholesterol absorption in your gut. Plus, its antioxidants may prevent cholesterol from becoming oxidized, which is a form of harmful cholesterol that builds up in blood vessel walls.

In a study with 49 participants with mild to moderate hypercholesterolemia, those in the test group, receiving a sample containing B&C, experienced a significant reduction in LDL-C levels (8.5%) at 9 weeks, while the control group showed no significant reduction. Significant differences were observed between the groups in LDL-C levels at 6 and 9 weeks, as well as total cholesterol levels at 9 weeks [\[R\]](#).

135

Avoid Exposure to Heavy Metals

IMPACT1 / 5

EVIDENCE1 / 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.

136



Ecklonia Cava

IMPACT1 / 5

EVIDENCE1 / 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 [\[R\]](#).

137



Chlorophyll

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take chlorophyll supplements once daily, with a dose ranging from 100 to 300 milligrams. Consume it with a glass of water, preferably in the morning to coincide with your digestive cycle. It's advisable to continue this regimen daily for at least 3 to 4 weeks to assess its benefits.

TYPICAL STARTING DOSE

100 mg

Description

Chlorophyll is a pigment found in plants that may have antioxidant and anti-inflammatory properties. Some proponents suggest that consuming chlorophyll supplements or chlorophyll-rich foods may support detoxification and overall health

How it helps

Chlorophyll can bind to potential carcinogens and interfere with how they're absorbed within your gastrointestinal system, which aids in excretion. In addition, it may boost your body's blood-cleansing function and liver detoxification pathways, potentially reducing total cholesterol.

In a placebo-controlled trial of 38 women, supplementation with green plant membranes (5 g/day) as part of a weight-loss intervention for 12 weeks increased weight loss (by 1.5 kg), and GLP-1 levels while reducing total and LDL cholesterol [\[R\]](#).

138



Glutamine

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 5 to 10 grams of glutamine powder, mixed with water or another beverage, daily. It can be divided into two servings, one in the morning and the other in the evening. This supplementation is generally considered safe for long-term use, but it's best to consult with a healthcare provider for personalized advice.

TYPICAL STARTING DOSE

5 g

Description

Glutamine is an amino acid that plays a role in various bodily functions, including immune support and gut health. It may help with muscle recovery and overall well-being, particularly for individuals engaging in strenuous exercise.

L-glutamine is an amino acid produced by the body. Its levels may decrease during periods of stress or illness. It is important for protein and energy production, and helps control kidney pH balance [\[R\]](#).

Some people take L-glutamine as a supplement to help with [\[R\]](#):

- Gut health
- Immunity
- Exercise recovery and muscle performance
- Brain health

How it helps

Glutamine may be beneficial as it stimulates a protein called PPAR-alpha, which can lead to reduction in LDL cholesterol. However, the effect on total cholesterol levels is not directly established, indicating further research is still needed.

In a placebo-controlled trial of 30 healthy men, supplementation with glutamine (0.3 g/kg body weight) for 14 days lowered IL-6, leptin, total cholesterol, oxidized LDL cholesterol, and oxidized LDL to HDL ratio [\[R\]](#).

139



Activated Charcoal

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500-1000 mg of activated charcoal with a full glass of water at least 1 hour before a meal or 2 hours after a meal. Do not consume it daily for long periods; use it for short-term detoxification or occasional upset stomach only.

TYPICAL STARTING DOSE

500 mg

Description

Activated charcoal is a porous substance that is highly effective at absorbing and trapping toxins and chemicals in the digestive tract. It is sometimes used in emergency medical settings for poisoning treatment and in certain beauty and wellness products.

How it helps

In a non-placebo-controlled trial of 17 patients with hypercholesterolemia, ingesting activated charcoal (4-32 g/day) for 3 weeks decreased LDL cholesterol (by 23-41%) while increasing the HDL:LDL ratio (by 77-121%). However, activated charcoal had no added benefits when combined with cholestyramine [R].

Activated charcoal can bind to cholesterol in the gut, potentially reducing its absorption and aiding in lowering high cholesterol levels.

140



Brazil Nuts

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume 1-2 Brazil nuts daily to meet your selenium needs and potentially improve heart health and thyroid function. Do not exceed this amount to avoid selenium toxicity.

Description

Brazil nuts are a nutritious snack rich in selenium, a mineral essential for various bodily functions, including thyroid health and immune support.

Brazil nuts have an enormous amount of selenium along with other minerals like magnesium, phosphorus, and copper, and vitamins E and B1. A 1-ounce (6–8 nuts) serving provides 544 mcg of selenium or 989%DV.

How it helps

Brazil nuts are high in selenium, unsaturated fats, and fiber that help to lower bad cholesterol (LDL) levels and increase good cholesterol (HDL) levels, improving overall lipid profile. Consuming them in moderation could therefore help manage total cholesterol.

In a placebo-controlled trial of 77 dyslipidemic and hypertensive patients already receiving lipid-lowering drugs, consuming partially defatted Brazil nut flour (13 g/day) for 90 days **lowered TC (by 20.5 mg/dL), non HDL-C (by 19.5 mg/dL), and Apo A-1 (by 10.2 mg/dL)** [R].

141



Alpha-Linolenic Acid (ALA)

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

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

Description

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

How it helps

Alpha-Linolenic Acid (ALA) helps reduce total cholesterol because it promotes heart health by inhibiting inflammatory markers and supporting lipid metabolism. Consuming ALA-rich foods such as flaxseeds and walnuts can help decrease cholesterol levels, reducing the risk of heart conditions.

Dietary ALA has positive effects on cholesterol, blood pressure, and inflammation, contributing to cardiovascular benefits. It may also reduce diabetes risk and potentially counteract cognitive impairment. Inconclusive evidence exists for metabolic syndrome and obesity benefits [\[R\]](#).

In a study involving 1305 individuals in the ALA group and 1325 in the control group, dietary ALA intake significantly reduced TG, TC, LDL-C, VLDL-C, TC/HDL-C ratio, and LDL-C/HDL-C ratio, but had no effect on HDL-C levels [\[R\]](#).

In a review of 14 studies, ALA had a significant effect on three out of 32 outcomes. It reduced fibrinogen levels (0.17 micromol/l) and fasting plasma glucose (0.20 mmol/l) but did not significantly impact other factors like total cholesterol, triglycerides, weight, BMI, LDL, blood pressure, VLDL, and apolipoprotein B [\[R\]](#).

In kidney disease patients, a meta-analysis of 19 studies revealed that ALA supplementation significantly reduced C-reactive protein (CRP) levels (WMD: -1.32), indicating anti-inflammatory effects. However, it had no significant impact on total cholesterol, high-density lipoprotein, low-density lipoprotein, and triglyceride levels [\[R\]](#).

142



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 improved total cholesterol [\[R\]](#).

143



Persimmon

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a dried persimmon supplement of 100-200mg daily, with water, preferably in the morning after breakfast. Continue this routine for at least 4-8 weeks to observe potential health benefits.

Description

Persimmon is a tropical fruit that comes from a variety of Diospyros trees . It has been used traditionally in Asian countries for centuries. Persimmons are a good source of nutrients, including vitamin A, vitamin C, dietary fiber, and various antioxidants like beta-carotene and flavonoids, which may support immune function and healthy skin.

How it helps

Persimmon is rich in fiber and antioxidants, which can help lower your body's total cholesterol levels. Its active compounds exert a positive impact on heart health by reducing LDL (bad cholesterol) and promoting HDL (good cholesterol).

In a placebo-controlled trial of 40 subjects with elevated cholesterol, consuming cookie bars with tannin-rich fiber from persimmon (3-5 g) 3x/day for 12 weeks lowered total cholesterol (at both doses) and LDL cholesterol (only at the highest dose) [\[R\]](#).

144



Fucoidan

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 300 mg of fucoidan supplement once daily, preferably with a meal to aid absorption. Continue this regimen for a minimum of four weeks to evaluate its effects on your health.

TYPICAL STARTING DOSE

300 mg

Description

Fucoidan is a compound found in certain brown seaweeds and marine plants, and it is consumed for its immune system support and anti-inflammatory effects.

How it helps

In a placebo-controlled trial of 42 patients with NAFLD, supplementation with low-molecular-weight fucoidan and high-stability fucoxanthin (275 mg LMF and 275 mg HSFx, 3x/day) for 24 weeks reduced liver fibrosis and steatosis, AST, ALT, total cholesterol, triglycerides, fasting glucose, HbA1c, IL-6, and IFN-gamma [\[R\]](#).

Fucoidan may help by inhibiting cholesterol absorption in your gut and promoting its removal from your body.

145



Chlorella

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 3 to 5 grams of chlorella in tablet or powder form daily, ideally before meals to improve digestion. Continue this supplementation for at least 2 to 3 months to observe benefits.

TYPICAL STARTING DOSE

3 g

Description

[Chlorella](#) is a microalga from freshwater. People consume chlorella in rice, pancakes, or tea. It can also be found as a supplement [\[R\]](#) [\[R\]](#).

Chlorella is **rich in protein** and several micronutrients. It may be useful to [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#):

- Reduce blood sugar
- Lower cholesterol
- Reduce blood pressure
- Improve immunity

How it helps

In a placebo-controlled trial of 63 people with hypercholesterolemia, supplementation with chlorella (5 g/day) for 4 weeks reduced total cholesterol by 1.6%. Chlorella lowered the levels of VLDL, apoB-LDL, and [non-HDL cholesterol](#). LDL and HDL levels did not change significantly [\[R\]](#).

The same dose prevented increases in LDL and total cholesterol from a diet with 510 mg/day cholesterol in a placebo-controlled trial of 34 healthy volunteers [\[R\]](#).

Chlorella may help with hypercholesterolemia by altering the expression of genes involved in fat metabolism, as seen in a non-placebo-controlled trial of 34 people [\[R\]](#).

146

Hatha Yoga

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Practice Hatha Yoga for 60 minutes at least twice a week. Choose a quiet, comfortable space and consider guided sessions for beginners or those unfamiliar with the poses. Consistency over a period of months to years is beneficial for appreciating its full effects.

TYPICAL STARTING DOSE

1 hour

Description

Hatha yoga is a gentle and accessible form of yoga that combines physical postures, breathing exercises, and meditation. Practicing hatha yoga regularly can promote flexibility, stress reduction, and overall physical and mental well-being.

How it helps

Hatha yoga can lower total cholesterol by reducing stress and promoting relaxation, which helps in controlling your body's production of cholesterol. Regular practice also improves your overall metabolic function, aiding in fat burning and further assisting in maintaining healthy cholesterol levels.

A cross-sectional study found no differences in arterial compliance and endothelial function between yoga practitioners and sedentary individuals. An intervention study with 13 sedentary adults showed decreased hemoglobin A1c and total cholesterol after 12 weeks of Hatha yoga, but no change in arterial compliance or endothelial function [R].

A total of 30 healthy, female Chinese subjects were recruited and randomized into a control or [HATHA] yoga practice group. The yoga practice included 8 wks of yoga practice (2 times/wk) for a total of 16 times. Yoga practice **significantly reduced plasma cholesterol, LDL-cholesterol, insulin levels,** and CD31+/CD42b-EMPs [R].

147



Chamomile

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take chamomile supplements in the form of capsules or tablets, usually ranging from 300 to 400 mg, up to three times daily between meals. If using chamomile tea as a supplement, drink 1 to 4 cups daily.

TYPICAL STARTING DOSE

300 mg

Description

Chamomile is an herbal remedy derived from the dried flowers of the chamomile plant. It is widely used for its calming and soothing properties

Chamomile is an herb native to Africa, Asia, and Europe. It was used as a traditional herbal remedy in ancient Greece, Rome, and Egypt. Today, chamomile is used in cosmetics, aromatherapy, tea, and supplements. It may help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Skin problems
- Period cramps
- Gut problems
- Sleep quality
- Mood

How it helps

Chamomile tea may help lower total cholesterol levels due to its antioxidative and anti-inflammatory properties which can improve overall heart health. However, it should not be used as a sole treatment and rather as a supplement to a healthy diet and exercise.

In a placebo-controlled trial of 64 subjects with type 2 diabetes, drinking chamomile tea (3 g/150 mL hot water) 3x/day after meals for 8 weeks lowered HbA1c, serum insulin, insulin resistance, total cholesterol, LDL cholesterol, triglycerides, and MDA [\[R\]](#), [\[R\]](#).

148



Tart Cherries

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume about 200 grams (7 ounces) of tart cherries or drink 240 ml (8 ounces) of tart cherry juice daily. This can be done at any time of the day but consuming it in the evening might improve sleep quality. It is recommended to continue daily consumption for at least 4 weeks to observe benefits such as reduced muscle pain, improved sleep, and potential reduction in inflammation.

Description

Tart cherries, often available in the form of juice or supplements, has vitamin C, as well as anthocyanins and melatonin, known for their potential to reduce inflammation and improve sleep quality. They are rich in antioxidants and may aid in recovery from exercise-induced muscle soreness.

Cherries are stone fruits with numerous species. Tart or “sour” cherries (*Prunus cerasus*) are native to parts of Europe and Asia [\[R\]](#), [\[R\]](#).

They are close to regular, sweet cherries (*Prunus avium*) but more acidic. Hence, people do not eat them fresh but dried or in syrups, salads, pies, or liqueurs.

People consume tart cherries to help with [\[R\]](#):

- Gout
- Exercise recovery
- Blood sugar control
- Blood pressure

How it helps

Tart cherries are rich in antioxidants and phytochemicals that can reduce inflammation and lower levels of bad LDL cholesterol. Therefore, eating tart cherries or taking a tart cherry supplement may help reduce total cholesterol levels.

Consuming tart cherry juice (480 mL/day) for 12 weeks **lowered total cholesterol and LDL-cholesterol** in a placebo-controlled trial of 37 participants [\[R\]](#).

In a placebo-controlled trial of 12 participants with metabolic syndrome, consuming tart cherry juice for 7 days **lowered total cholesterol and total cholesterol:HDL ratio** [\[R\]](#).

149



Nattokinase and Red Yeast Rice

IMPACT

0 / 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 total cholesterol (by 25%) and the TC/HDL-C ratio (by 29.5%) [\[R\]](#).

Nattokinase aids in breaking down blood clots and enhancing circulation, which can minimize the accumulation of cholesterol in your arteries. Red yeast rice contains monacolin K, a substance that lowers cholesterol levels similarly to certain prescription medications.

150



Mangosteen and Sphaeranthus Indicus

IMPACT

0 / 5

EVIDENCE

1 / 5

How to implement

Take a supplement containing a blend of mangosteen and sphaeranthus indicus, usually available in capsule form. Follow the manufacturer's instructions, typically involving taking one capsule twice daily, 30 minutes before meals with water.

Description

A combination of mangosteen and sphaeranthus indicus is sometimes used in dietary supplements for its potential to support weight management and metabolic health. These natural ingredients may help regulate appetite and metabolism.

How it helps

In [2 placebo-controlled trials of 160 obese participants](#), supplementation with a combination of mangosteen and *Sphaeranthus indicus* (400 mg, 2x/day) for 8-16 weeks **reduced total cholesterol by 13.8% or 19.25 mg/dL** [\[R\]](#), [\[R\]](#).

Mangosteen and Sphaeranthus Indicus are believed to help with Total Cholesterol by blocking the formation of cholesterol and promoting its breakdown in the liver. They may lower LDL 'bad' cholesterol, raise HDL 'good' cholesterol, and reduce total cholesterol levels.

151



Wakame and Carob

IMPACT

0 / 5

EVIDENCE

1 / 5

How to implement

Incorporate wakame, a type of edible seaweed, and carob, a chocolate substitute, into your diet regularly. You can add wakame to soups, salads, or sushi and use carob powder to make smoothies, baked goods, or as a cocoa powder alternative in recipes. Aim to include these foods several times a week for ongoing dietary benefits.

Description

Wakame is a type of edible seaweed commonly found in Asia, and it is rich in minerals, particularly iodine. It is used to support thyroid function due to its iodine content and is known for potential benefits in promoting heart health and aiding in weight management. Carob is a legume-derived food often used as a cocoa substitute, particularly in Mediterranean regions. It is naturally caffeine-free, lower in fat than cocoa, and a source of dietary fiber. Carob is used as a healthier alternative for chocolate, particularly for those with caffeine sensitivity.

How it helps

In a [placebo-controlled trial of 40 obese participants](#), consuming a snack with wakame and carobs for 8 weeks **decreased TC (by 5.8%), LDL-C (by 7.4%), and resistin (by 15.9%)** [\[R\]](#).

Eating wakame, a type of seaweed, helps in reducing total cholesterol levels because it contains fucoxanthin, which can lower bad (LDL) cholesterol. Carob is high in fiber, helping to decrease the absorption of cholesterol in the body.

152



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) reduced total cholesterol in an uncontrolled trial of 60 postmenopausal women [\[R\]](#).

153



Tamarind

IMPACT

0 / 5

EVIDENCE

1 / 5

How to implement

Take 500 mg of tamarind extract as a supplement daily, with or without food. This can be continued for up to 12 weeks, after which you should consult your healthcare provider for further guidance.

TYPICAL STARTING DOSE
500 mg

Description

Tamarind is a tropical fruit native to Africa but is now grown in many tropical regions. Tamarind is rich in nutrients like vitamins C and B-vitamins, minerals such as potassium and magnesium, and dietary fiber. The main compounds in tamarind include tartaric acid and various antioxidants, which contribute to its distinctive taste and potential health benefits.

How it helps

Tamarind may work to lower total cholesterol levels by inhibiting enzymes responsible for cholesterol synthesis. This processed food also contains dietary fibers, which helps remove cholesterol from the body through digestion.

A [clinical trial](#) found that dried and pulverized pulp of T. indica fruits (15 mg/kg body weight) **reduced total cholesterol level, LDL-cholesterol level, and diastolic pressure** without affecting body weight and systolic blood pressure [\[R\]](#).

154



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 supports overall metabolic health and can help regulate hormones that affect cholesterol synthesis.

155



Lactobacillus Fermentum

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a supplement containing Lactobacillus fermentum, aiming for dosages around 10 billion CFU (colony forming units). Consume it daily, preferably with a meal, to ensure proper absorption. Continue this routine for at least 4 weeks to observe benefits.

TYPICAL STARTING DOSE

10 billion CFU

Description

Lactobacillus fermentum is a beneficial probiotic strain that can support digestive health and contribute to a balanced gut microbiome. It may help improve gut function, enhance nutrient absorption, and bolster the immune system, promoting overall well-being.

How it helps

Lactobacillus Fermentum helps to balance the gut microbiota and supports lipid metabolism, which can lower total cholesterol levels. It works by breaking down cholesterol in your gut, preventing it from being absorbed into your bloodstream.

156



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 contains a type of fiber that can inhibit cholesterol absorption in the gut, helping to lower total cholesterol levels. Furthermore, it can help balance lipid levels in your body by reducing LDL (bad cholesterol) and increasing HDL (good cholesterol).

157



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 rich in healthy fats, fiber, and protein that can help lower the "bad" LDL cholesterol. Routine intake of almonds can also prevent the absorption of cholesterol into your bloodstream, thus lowering total cholesterol levels.

158



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 type of fiber that binds to cholesterol in your digestive system, preventing it from being absorbed into your bloodstream. Over time, this can lower your total cholesterol levels and help maintain heart health.

159



Limit Trans Fats

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

To limit trans fats, read food labels and choose products with 0 grams of trans fat. Avoid fried foods, packaged snacks, baked goods, and fast foods, which are common sources of trans fats. Aim to eliminate trans fats from your diet completely.

Description

Limiting trans fat intake is vital for heart health and reducing the risk of cardiovascular diseases. Avoiding foods high in trans fats and opting for healthier alternatives promotes better cardiovascular well-being.

Based on their structure, the fats in our diet can be broadly divided into *saturated* and *unsaturated* fat. Trans fat is a type of unsaturated fat [\[R, R, R\]](#).

In large amounts, trans fat and saturated fat may have a negative impact on your heart. Processed foods and animal products like red meat and dairy are rich in these fats [\[R, R, R\]](#).

How it helps

Limiting trans fats helps reduce your total cholesterol levels because these fats increase your "bad" (LDL) cholesterol and decrease your "good" (HDL) cholesterol. Lower total cholesterol reduces the risk of heart disease and stroke by avoiding fatty buildup in your blood vessels.

160



Curcumin

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

500 mg

Description

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

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

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

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

How it helps

Curcumin, an active ingredient in turmeric, can help reduce cholesterol by interfering with the gut's cholesterol absorption. It also appears to help with reducing inflammation and oxidative stress, both linked to high cholesterol.

161



Hazelnuts

IMPACT

0 / 5

EVIDENCE

0 / 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 heart-healthy fats that can lower bad cholesterol (LDL) and increase good cholesterol (HDL). They also contain dietary fiber which aids in reducing overall cholesterol levels, thereby preventing the condition.

162

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 can help reduce total cholesterol as it focuses on building muscle, which demands more energy, thereby playing a role in burning the bad (LDL) cholesterol. Moreover, it also raises the level of good (HDL) cholesterol which clears out LDL cholesterol, preventing the build-up in your arteries.

163



Lactobacillus Reuteri

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a supplement containing Lactobacillus reuteri daily, ideally choosing a product that specifies CFU (colony-forming units) to ensure you receive an effective dose. Dosage can vary depending on the specific product, but it's typically around 10 billion CFUs. Continue taking the supplement for at least 4 to 8 weeks to evaluate its benefits for your gut health.

TYPICAL STARTING DOSE
10 billion CFU

Description

Lactobacillus reuteri is a beneficial probiotic strain that can support digestive health and contribute to a balanced gut microbiome. It may help improve gut function, enhance nutrient absorption, and bolster the immune system, promoting overall well-being.

[Lactobacillus reuteri](#) is a [probiotic](#) bacterium that is part of the normal [microbiome](#) of the gut, skin, urinary tract, and, occasionally, the stomach [\[R\]](#).

L. reuteri is also used as a probiotic. People take it to help with [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- High cholesterol
- Gut diseases
- Constipation
- Helicobacter pylori infections

In the 1960s, **30-40 percent** of people had *Lactobacillus reuteri* as a part of their microbiome. Today, estimates suggest it is found in only **10-20 percent** [\[R\]](#), [\[R\]](#).

How it helps

Lactobacillus Reuteri is a type of probiotic that can help lower total cholesterol levels by breaking down bile in the gut, preventing it from being reabsorbed where it can enter the blood as cholesterol. Studies suggest this may lead to decreases in total and LDL cholesterol.

164



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

Morning light, especially sunlight, helps your body produce vitamin D which can control high cholesterol levels. Regular exposure to morning light also helps maintain a healthy sleep-wake cycle, reducing stress and potentially lowering 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].

165



Cashews

IMPACT

0 / 5

EVIDENCE

0 / 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 and polyunsaturated fats which help reduce levels of harmful LDL cholesterol and increase beneficial HDL cholesterol. Additionally, they contain dietary fiber, which can also assist in lowering cholesterol levels.

166



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 (EVOO) is rich in monounsaturated fats, which help lower levels of 'bad' LDL cholesterol and increase 'good' HDL cholesterol. Regular consumption of EVOO can thus help balance total cholesterol levels, preventing unhealthy accumulation.

167



Dietary Iron

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate iron-rich foods into your daily meals, such as red meat, chicken, turkey, fish, beans, lentils, tofu, cooked spinach, and fortified cereals. Aim for at least 18 mg of iron per day for adult women and 8 mg per day for adult men. It's also beneficial to pair these foods with vitamin C-rich foods like oranges, strawberries, or bell peppers to enhance iron absorption.

Description

Iron (Fe) is an essential mineral. It helps make [hemoglobin](#), a protein that carries oxygen to cells. In this way, iron **increases energy** and supports **brain and immune system function** [\[R, R, R\]](#).

Foods rich in iron include [\[R\]](#):

- Oysters
- White beans
- Beef
- Chocolate
- Spinach
- Fortified cereals

Women should be getting **8-18 mg** of iron per day, while **men** should be getting **8 mg** [\[R\]](#).

Groups at risk of iron deficiency include [\[R\]](#):

- Menstruating women
- Children
- Vegetarians
- Routine blood donors

How it helps

Genetically higher levels of iron may be associated with lower total cholesterol and LDL cholesterol levels [\[R, R\]](#).

Dietary iron may reduce LDL cholesterol levels in several ways:

- Heme iron: This type of iron, found in red meat, can bind to cholesterol in the gut, preventing it from being absorbed into the bloodstream.
- Increased bile acid production: Iron plays a role in the production of bile acids, which help break down cholesterol in the gut. When you have sufficient iron, you produce more bile acids, leading to increased cholesterol removal from the body.
- Improved gut microbiota: Iron is essential for the growth and function of gut bacteria. Certain gut bacteria can produce short-chain fatty acids that lower cholesterol levels by reducing its absorption and increasing its breakdown.

Please note: *Increased iron intake from meat is linked to higher odds of diabetes and heart disease. Try to find a balance between plant and animal iron sources* [\[R, R, R, R\]](#).

168



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 rich in healthy fats and fiber, which can help reduce bad LDL cholesterol levels and increase good HDL cholesterol. Eating these nuts can therefore aid in preventing high total cholesterol.

169



Breathing Techniques

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Practice deep breathing exercises for 10 minutes daily, preferably in a quiet space where you won't be disturbed. Sit or lie down in a comfortable position, slowly inhale through your nose, allowing your chest and lower belly to rise, hold the breath for a moment, and then exhale slowly through your mouth or nose. This can be done at any time of day to reduce stress and improve focus.

TYPICAL STARTING DOSE

10 minutes

Description

Breath awareness and specific breathing techniques, such as deep breathing or mindfulness-based practices, can help reduce stress, improve focus, and enhance overall mental well-being. These techniques are valuable tools for managing anxiety and promoting relaxation.

Most breathing techniques involve taking slow and even breaths. Their main goal is to prevent rapid breathing (**hyperventilation**) [\[R\]](#).

Breathing techniques tend to help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Stress
- Anxiety
- Sleep problems
- Asthma

One example is the **Buteyko breathing technique**. It's often used by people with asthma or other conditions that affect the lungs [\[R\]](#).

Another example is **yogic breathing**. [Yoga](#) is a practice that combines breathing techniques with exercise and meditation [\[R\]](#), [\[R\]](#).

How it helps

Relaxation techniques, like deep breathing or yoga, reduce stress levels and cortisol production, a hormone that contributes to high cholesterol. Lowering stress and cortisol levels thus helps regulate cholesterol levels and prevent its accumulation, promoting overall heart health.

170



Bifidobacterium Longum

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a Bifidobacterium longum supplement daily, with a typical dosage around 10 billion colony-forming units (CFUs). It can be consumed any time of day, but taking it with a meal might improve its absorption and effectiveness. Continue this regimen for at least 4 weeks to assess its benefits on digestive health.

TYPICAL STARTING DOSE
10 billion CFU

Description

Bifidobacterium longum is a beneficial probiotic strain known for its potential to support digestive health and boost the immune system.

[Bifidobacterium longum](#) is a [probiotic](#) bacterium naturally present in the human gastrointestinal tract. Its subspecies *B. longum subsp. infantis* is one of the earliest bacteria to colonize the infant gut [\[R\]](#).

People take *B. longum* to enhance immunity against infections and support gut health [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

Bifidobacterium Longum is a probiotic that can help lower total cholesterol. It does this by absorbing cholesterol in the digestive system and also by influencing the way the body processes fats.

171



Artichoke

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate fresh or cooked artichoke into your diet 2-3 times per week. Each serving should include approximately one medium-sized artichoke or about 120 grams if using hearts. This can be included in meals such as salads, pastas, or as a steamed side dish.

Description

Artichokes are a vegetable known for their unique flavor and potential health benefits. They are a good source of fiber, vitamins, and minerals, and may support digestion, liver health, and antioxidant protection.

How it helps

Artichokes are high in fiber and have been shown to help lower 'bad' LDL cholesterol levels, which can contribute to total cholesterol reduction.

172

Calcium Supplements

IMPACT

0 / 5

EVIDENCE

0 / 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.

173



Policosanol

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 5 to 20 milligrams of policosanol orally, once daily in the evening with a meal. Continue this regimen for at least 2 to 3 months to evaluate its effects on cholesterol levels.

TYPICAL STARTING DOSE

5 mg

Description

Policosanol is a supplement derived from the waxy coating of sugar cane and yams. It was developed in Cuba, and is used primarily for its potential to lower cholesterol levels and improve cardiovascular health.

How it helps

Policosanol can inhibit cholesterol synthesis in the liver, helping reduce total cholesterol levels. It can be a beneficial supplement for people with high cholesterol when coupled with a balanced diet and regular exercise.

174



Lactobacillus Plantarum

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a probiotic supplement containing *Lactobacillus plantarum* 299V daily. The typical dosage is 10 billion colony-forming units (CFUs). Continue for at least 4 weeks to assess benefits on digestive health.

TYPICAL STARTING DOSE

10 billion CFU

Description

[Lactobacillus plantarum](#) is a [probiotic](#) bacterium found in many fermented plant products such as sauerkraut, pickles, brined olives, and Korean kimchi [\[R\]](#).

People take *L. plantarum* supplements to improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Diarrhea
- Skin appearance
- IBD
- High cholesterol

How it helps

Lactobacillus Plantarum is a probiotic that can help reduce cholesterol levels. It works by absorbing cholesterol in your intestines and preventing it from being absorbed into your bloodstream.

175



Guar Gum

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 5-10 grams of guar gum with at least 8 ounces of water. Start with a lower dose to assess your tolerance, then gradually increase as needed. It is best taken before meals, up to three times a day.

TYPICAL STARTING DOSE

5 g

Description

Guar gum is a soluble fiber derived from guar beans and is commonly used as a food thickener and stabilizer. Its ability to slow down digestion and promote a feeling of fullness can be beneficial for managing appetite and supporting digestive health when consumed as part of a balanced diet.

Guar gum is a fiber made from the seeds of the Indian cluster bean (*Cyamopsis tetragonolobus*). It is used in food products to help bind and thicken them [R].

Guar gum may help with blood pressure control and support the immune system [R].

How it helps

Guar gum, a type of fiber, can bind to cholesterol in your intestines, preventing it from being absorbed into your bloodstream. This can decrease your total cholesterol levels, which is beneficial for heart health.

176



Low-Carbohydrate Diet

IMPACT

0 / 5

EVIDENCE

0 / 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

Eating a low-carbohydrate, low-calorie diet may lower total cholesterol more in people with certain gene variants [R].

 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	

177



Avoid Alanine Supplements

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Do not purchase or consume supplements that list alanine, specifically as an ingredient. This includes not using powders, pills, or any form of supplement designed for direct consumption that contains alanine.

Description

L-alanine is a non-essential amino acid that plays a crucial role in the body's energy metabolism, particularly during periods of intense exercise. It can help support endurance and muscle recovery by providing a source of energy and aiding in the removal of harmful metabolic byproducts like lactic acid.

How it helps

Genetically predicted plasma alanine is not linked to coronary artery disease but has been associated with a 35% higher risk of diabetes, elevated glucose, LDL-cholesterol, triglycerides, total cholesterol, apolipoprotein B, and blood pressure, particularly in females for LDL-cholesterol and triglycerides [R].

178



Deep Breathing

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Practice deep breathing exercises for 5-10 minutes at least twice a day, ideally in the morning and before bed. Sit or lie down in a comfortable position, slowly inhale through your nose, allowing your chest and lower belly to rise, hold the breath for a moment, and then exhale slowly through your mouth or nose.

TYPICAL STARTING DOSE

5 minutes

Description

Deep breathing techniques, such as diaphragmatic or abdominal breathing, can promote relaxation, reduce stress, and improve lung capacity. Regular deep breathing exercises can contribute to overall mental and physical well-being by reducing tension and increasing oxygen supply to the body.

How it helps

Relaxation techniques, like deep breathing or yoga, reduce stress levels and cortisol production, a hormone that contributes to high cholesterol. Lowering stress and cortisol levels thus helps regulate cholesterol levels and prevent its accumulation, promoting overall heart health.

179



Guggul

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a guggul supplement, usually in capsule form, at a dosage of about 500-1000 mg per day, divided into 2-3 doses. This should be taken with meals and continued for a minimum of 3 months to evaluate its effectiveness.

TYPICAL STARTING DOSE

500 mg

Description

Guggul is an herbal resin used in traditional Ayurvedic medicine for various health concerns, including cholesterol management. It may have potential benefits for lipid profiles and overall cardiovascular health.

How it helps

Guggul is widely used in traditional medicine for its potential ability to lower total cholesterol. It works by increasing the liver's capacity to break down harmful cholesterol, leading to lower overall cholesterol levels.

180

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% [\[R\]](#).

181



Apricots

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate fresh or dried apricots into your diet daily. Fresh apricots can be eaten as a snack, sliced into salads, or blended into smoothies. Dried apricots can be added to oatmeal, yogurt, or trail mix. Aim for a serving size of about 30 grams (approximately 4 fresh apricots or a handful of dried apricots) per day.

Description

Apricots are a nutritious fruit packed with vitamins, minerals, and fiber. They support eye health, provide immune-boosting antioxidants, and contribute to overall well-being when included in a balanced diet.

Apricots are a nutritious little fruit, containing vitamins A, C, and E, potassium, and several antioxidants. A ½ cup serving provides 755 mcg of potassium or 16%DV.

How it helps

Apricots are high in dietary fiber and antioxidants, which help in reducing the bad cholesterol (LDL) levels in your body. Besides, apricots contain niacin that can increase good cholesterol (HDL), promoting a healthy cholesterol balance.

A 12-week study on 12 healthy Slovak adult volunteers consuming bitter apricot seeds (60 mg/kg/day) resulted in a slight weight increase (77.34 to 78.22 kg), reduced total and low-density cholesterol levels, and increased triglycerides, with other cardiovascular factors showing non-significant changes [\[R\]](#).

In a study with 18 Slovak women, daily bitter apricot seed consumption (60 mg/kg for 42 days) initially increased total cholesterol and triglycerides after 21 days, but decreased LDL after 42 days. Endocrine changes included increased FSH, testosterone, and androstenedione after 42 days, and increased PRL and testosterone, while E2 decreased after 21 days. Apricot seeds may affect lipid and endocrine profiles in reproductive-age women [\[R\]](#).

182



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

GLA has the potential to reduce bad cholesterol levels (LDL) while boosting good cholesterol (HDL), contributing to an overall healthier cholesterol balance. This may decrease the risk linked with high total cholesterol such as heart disease and stroke.

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](#).

 TABLE OF CONTENTS

PAGE 170 / 189

SKIP TO NEXT SECTION 

183



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, as a form of low-impact exercise, aids in balancing cholesterol levels by helping to reduce bad (LDL) cholesterol while raising good (HDL) cholesterol. It further helps in weight control and stress reduction, both of which are key to maintaining healthy cholesterol levels.

184



Oats

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate oats into your diet daily by having them for breakfast as oatmeal, or adding them to smoothies, baking recipes, or overnight oats. Aim for at least a half-cup (40 grams) of dry oats to reap the health benefits.

Description

Oats are a whole grain known for their high fiber content and nutritional value, like zinc, iron, and manganese. Including oats in one's diet can promote heart health, stabilize blood sugar levels, and provide sustained energy.

Oats are a good source for manganese, zinc, iron, magnesium, and vitamins B1 and B5. A ½ cup serving provides 0.7 mg of manganese or 30%DV.

How it helps

Eating oats can help lower total cholesterol levels because they are high in soluble fiber, which binds with LDL (bad) cholesterol in the digestive system and removes it from the body. Thus, providing heart-healthy benefits and preventing cholesterol-related conditions.

185



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

A consistent sleep pattern can help maintain circadian rhythms that regulate metabolic processes, including those related to cholesterol.

186



Barley

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Include barley in your diet by adding it to soups, stews, or salads. You can also replace rice or other grains with cooked barley. Aim to consume barley-based meals 2-3 times a week for ongoing dietary benefits.

Description

Barley is a whole grain rich in fiber, vitamins, and minerals. Incorporating barley into your diet can support digestive health, provide sustained energy, and contribute to overall nutritional wellness.

How it helps

Eating barley can help lower your total cholesterol levels because it is rich in soluble fiber. This fiber binds to cholesterol and removes it from your body, preventing it from being absorbed and contributing to high cholesterol levels.

187



Synbiotics

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a synbiotic supplement that combines both prebiotics and probiotics daily, ideally with a meal. The specific dosage depends on the product, but generally ranges from 1 to 10 billion CFUs for probiotics. Consult the product's label for exact dosing instructions and continue use for at least 4 weeks to assess effectiveness.

Description

Synbiotics are dietary supplements that combine probiotics (beneficial bacteria) and prebiotics (fiber) to support gut health. They help maintain a balanced gut microbiome and digestive well-being.

How it helps

Synbiotics, a combination of probiotics and prebiotics, can improve your gut health, which influences cholesterol metabolism. This, in turn, has the potential to help reduce your total cholesterol levels.

188



Buckwheat

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate buckwheat into your diet by adding it to meals 2-3 times per week. You can use buckwheat flour for pancakes or bread, include buckwheat groats in soups, salads, or as a side dish instead of rice or pasta.

Description

Buckwheat is a gluten-free whole grain that provides essential nutrients, including protein, fiber, and minerals. It can contribute to heart health, digestive regularity, and balanced nutrition.

How it helps

Buckwheat is rich in fiber and plant compounds like rutin which help in lowering cholesterol levels. The high level of fiber reduces bad LDL cholesterol and increases good HDL cholesterol, thus preventing cholesterol buildup.

189



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].

190



African Mango Seed Extract

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 150 mg of African mango seed extract twice daily, 30 minutes before meals with a glass of warm water. Continue this regimen for 10 weeks for optimal results.

TYPICAL STARTING DOSE

300 mg

Description

African mango (*Irvingia gabonensis*) is a tropical fruit native to West Africa. It is renowned for its potential health benefits, primarily attributed to its high fiber content and the presence of an extract known as Irvingia, which is believed to support weight management and improve metabolic health. African mango supplements are commonly used to aid in weight loss efforts and may help reduce cholesterol levels and improve blood sugar control.

[African mango](#) (*Irvingia gabonensis*), also known as wild mango, bush mango, dika, and ogbono, is a tree found in the rainforests of West Africa. African mango owes its name to its similarity to mangoes [\[R\]](#).

All parts of the African mango tree are used for a variety of purposes [\[R\]](#):

- The pulp is consumed as food or used to make jams, juice, and wine
- The seeds are eaten raw or used to prepare foods and supplements
- The roots, bark, leaves, and seeds are used to make traditional medicines

How it helps

African Mango, also known as Irvingia Gabonensis, contains healthy fiber which can help lower total cholesterol levels. It does this by trapping and removing cholesterol from the body, thereby reducing your overall levels.

191



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

Regular physical activity increases heart rate, improving circulation and can help lower LDL cholesterol and raise HDL cholesterol.

192



Locust Bean Gum

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take carob gum as a supplement by consuming 5 grams per day, mixed into a glass of water or any other beverage of your choice. This should be done daily for a period of at least 3 weeks to observe potential benefits.

TYPICAL STARTING DOSE

5 g

Description

Carob gum, also known as locust bean gum, is a food additive used as a thickener and stabilizer in various products. It helps improve texture and consistency of foods and also may help reduce cholesterol.

How it helps

Carob gum, also known as locust bean gum, works by inhibiting your body's absorption of cholesterol, leading to a decrease in total cholesterol levels in the blood. It can be a beneficial dietary addition for managing high cholesterol.

193



Relaxation Techniques

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

30 minutes

Description

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

We all get stressed from time to time.

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

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

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

- Anxiety
- Depression
- Chronic pain

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

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

How it helps

Relaxation techniques, like deep breathing or yoga, reduce stress levels and cortisol production, a hormone that contributes to high cholesterol. Lowering stress and cortisol levels thus helps regulate cholesterol levels and prevent its accumulation, promoting overall heart health.

194



DHEA (Dehydroepiandrosterone)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 25-50 mg of DHEA orally with water daily, preferably in the morning to mimic the body's natural rhythm of DHEA production. It is advisable to start at the lower dose to assess tolerance and adjust as needed. Consult a healthcare provider for personalized advice and before starting a new supplement regimen.

TYPICAL STARTING DOSE

25 mg

Description

DHEA is a hormone produced by the adrenal glands and has been used as a dietary supplement for various purposes, including supporting hormonal balance and energy levels. It may have potential benefits for specific individuals, but its use should be supervised by a healthcare professional due to its hormonal nature.

DHEA is a steroid hormone produced primarily by the adrenal glands. It is also produced to a much lesser extent by the testes and ovaries and, possibly, the brain [\[R\]](#), [\[R\]](#).

DHEA helps make the sex hormones [testosterone](#) and [estrogen](#). DHEA is important for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Mood
- Immunity
- Muscle strength
- Bone health
- Skin health

DHEA is released in response to stress. In fact, one of DHEA's important roles is to protect against the adverse effects of prolonged and excessive exposure to cortisol, the stress hormone [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

Genetically higher DHEA-S levels may be associated with lower total cholesterol levels [\[R\]](#).

195



Magnesium

IMPACT

0 / 5

EVIDENCE

0 / 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

Magnesium is believed to help lower total cholesterol by encouraging the enzymes that regulate cholesterol production in the body. Additionally, it is thought to increase the level of good cholesterol and decrease the level of bad cholesterol.

196



Inulin

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 5 grams of inulin supplement daily, mixing it with water, other beverages, or food. It can be taken all at once or divided into smaller doses throughout the day. Start with a lower dose to assess your tolerance and gradually increase. Continue taking inulin daily for at least 4-8 weeks to assess its benefits on gut health.

TYPICAL STARTING DOSE

5 g

Description

Inulin is a type of dietary fiber found in certain plants. It can support digestive health by promoting the growth of beneficial gut bacteria and aiding regular bowel movements.

How it helps

Inulin, a type of dietary fiber, can assist with lowering total cholesterol levels by reducing your body's ability to make certain types of fats. Moreover, it helps promote the growth of beneficial gut bacteria, which plays an important role in managing cholesterol levels.

197



Mind-Body Exercise

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate mind-body exercises such as yoga, tai chi, or meditation into your daily routine. Allocate at least 30-60 minutes per day to these activities, aiming for consistency over intensity. Choose a quiet, comfortable space and make it a regular part of your day, ideally at the same time each day to establish a routine.

TYPICAL STARTING DOSE

1 hour

Description

Mind-Body exercises like yoga and Tai Chi combine physical movement with mindfulness, offering benefits such as improved flexibility, balance, and mental focus. These practices promote holistic well-being by enhancing both physical and mental health.

How it helps

Mind-body exercises like yoga, tai chi, and mediation can aid in managing total cholesterol levels by reducing stress, which is a known risk factor for high cholesterol. Furthermore, these exercises can promote heart health by improving circulation and decreasing the heart rate.

198



Canola Oil

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate canola oil into your diet as a cooking oil or a salad dressing base. Use it in place of other fats such as butter or margarine when baking, frying, or preparing meals to help lower bad cholesterol levels. Aim for using canola oil in 1-2 meals per day, everyday, for consistent dietary benefits.

Description

Canola oil is a heart-healthy cooking oil rich in unsaturated fats and low in saturated fats. Incorporating canola oil into your diet can help lower cholesterol levels and reduce the risk of cardiovascular disease.

How it helps

Canola oil is low in saturated fat, which helps reduce levels of LDL or "bad" cholesterol. Also, it contains omega-3 fatty acids, compounds known for their heart-protective properties, and can reduce total cholesterol levels.

199



Green Tea Extract

IMPACT

0 / 5

EVIDENCE

0 / 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

Green tea extract contains catechins which may help improve cholesterol levels by reducing the absorption and increasing the excretion of cholesterol.

200

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 exercise can help lower total cholesterol levels by boosting metabolism, burning fat, and improving cardiovascular fitness, which in turn helps in maintaining healthy cholesterol levels. Regular exercise in water is low-impact and easy on the joints, making it an ideal way for individuals of all fitness levels to help prevent high cholesterol.

201



Cocoa

IMPACT

0 / 5

EVIDENCE

0 / 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 is rich in plant compounds known as flavonoids, which are proven to have heart-healthy benefits such as reducing LDL (bad cholesterol) levels. Additionally, these antioxidants inhibit the oxidation of LDL cholesterol, keeping your arteries clear and reducing your risk of heart disease.

202



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 provides a full-body workout that is beneficial for cardiovascular health and can assist in cholesterol management.

203



Beta-Glucans

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a beta-glucan supplement daily, with a dosage ranging from 250mg to 500mg. It is best consumed with a meal to enhance absorption. Continue this routine daily to support immune health.

Description

Beta-glucans are types of soluble fiber found in foods like oats and barley. They have been associated with immune system support and may help lower cholesterol levels when consumed as part of a heart-healthy diet.

Beta-glucan is a type of soluble fiber with antioxidant properties. It is abundant in [R](#), [R](#):

- Baker's yeast
- Cereals (e.g., oats, barley)
- Mushrooms (e.g., maitake)
- Seaweeds

People use beta-glucans to [R](#), [R](#), [R](#), [R](#), [R](#):

- Improve immunity (e.g., fight infections)
- Reduce blood sugar
- Reduce cholesterol

How it helps

Beta-Glucans, a type of soluble fiber found in various plants, can help lower your total cholesterol. They do this by forming a gel-like substance in your gut that can bind cholesterol-rich bile acids and stop them from being reabsorbed, which your body responds to by pulling cholesterol out of your blood for bile acid production.

204

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

Genetically predicted higher vitamin D levels may be associated with lower levels of total cholesterol and reduced LDL particle number [\[R\]](#).

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 [\[R\]](#).

Please note: *Experts recommend getting 600-800 IU of vitamin D per day. Medical bodies recommend against taking more than 4,000 IU per day* [\[R\]](#).

205



Whole Grains

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

Description

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

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

Whole grains provide many crucial nutrients, including:

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

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

How it helps

Whole grains, like brown rice and whole wheat, can help reduce total cholesterol due to their fiber content.

Next Steps

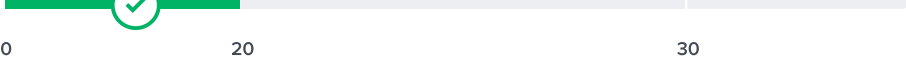
Remember, your genes only tell one important part of your health story!

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.

	TSH	2.76 mIU/mL		9 Nov 2025
	Apolipoprotein A1	119.5 mg/dL		9 Nov 2025
	VLDL Cholesterol	11 mg/dL		9 Nov 2025
	DHEA Sulfate	303 mcg/dL		9 Nov 2025
	Non-HDL Cholesterol	140 mg/dL		9 Nov 2025
	LDL Cholesterol	103 mg/dL		9 Nov 2025
	HDL Cholesterol	42 mg/dL		9 Nov 2025
	Cholesterol, Total	182 mg/dL		9 Nov 2025
	ApoB	108 mg/dL		9 Nov 2025