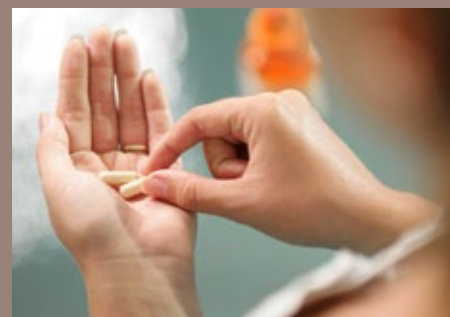


One Beat at a Time:

Your Guide to Heart Health



LifeExtension®
Stay Healthy, Live Better



A Change of Heart Health

These statistics on heart disease alarm us all. But we have a few simple solutions that can help turn things around.



Eating for Your Heart

The food you eat plays a vital role in keeping your heart healthy. We'll show you how to eat your way to a healthier heart — and you won't be left feeling hungry!



Supplements for a Healthy Heart

Sometimes we require a little extra help to get all the heart-healthy nutrients we need. And that's where supplements come in!



Blood Tests for Heart Disease

Go beyond basic cholesterol panels and discover the blood tests that can help you catch heart disease early . . . and prevent problems before they start.



#1

**A Change of
Heart Health**



Advanced Cholesterol Testing

Did you know that the common cholesterol test your doctor is most apt to order is not the best test for truly assessing your risk of heart disease? It's true.

There are advanced cholesterol tests that categorize the bad and good cholesterol into sub-types. This is important in identifying your risk. Cholesterol sub-types are associated with increased or decreased risk, not the calculated totals you see on traditional cholesterol tests.

Next time, ask your doctor to order an advanced cholesterol test. It will provide more information for your doctor to analyze and correctly assess your risk of heart disease.

A Change of Heart Health

The statistics about heart disease today are staggering. In the United States, heart disease is the number one cause of death for both men and women, claiming more lives than all forms of cancer combined. Heart attacks happen every 34 seconds, and someone dies every 60 seconds.*

And heart disease isn't just hurting our health — it's hitting our wallets. Between 2010 and 2030, the direct health care costs of heart disease are projected to triple, from \$273 billion to \$818 billion!**

But it's not all bad news. With some simple lifestyle changes, it's possible to improve these statistics and your own heart health!

Smart Steps for a Heart-Healthy Lifestyle

Keep in mind that these lifestyle changes don't have to be drastic. Even modest improvements can make a huge impact on our heart health.

Stop Smoking

We know quitting is tough! But cigarette smoking puts you at a higher risk for a multitude of serious disorders, including cardiovascular disease. You don't have to face quitting alone — there are plenty of resources out there to help.

Control Your Cholesterol

Too much cholesterol in your blood can lead to clogged arteries, which in turn can trigger a heart attack. Improve your cholesterol numbers by reducing your intake of saturated fat, trans fat, and cholesterol, and by getting more exercise.

Manage Your Blood Pressure

If you've got high blood pressure, it's time to start getting those numbers down. Try eating a balanced diet, cutting out salt, exercising, limiting alcohol — whatever you have to do to manage this major risk factor for heart disease.

Maintain a Healthy Weight

Being overweight puts you at risk for high cholesterol, high blood pressure, and type 2 diabetes. Your body mass index (BMI) along with your physician can help determine if you're at a good weight — and a healthy diet and regular exercise can help get you there if you're not!

*<http://www.theheartfoundation.org/heart-disease-facts/heart-disease-statistics/>

**<http://www.ncbi.nlm.nih.gov/pubmed/21262990>

Exercise Daily

From walking to swimming to dancing, physical activity — even ten minutes at a time — can have a host of heart-healthy benefits, from lowering blood pressure and cholesterol to maintaining a healthy weight. So what are you waiting for? Get moving!

Manage Your Diabetes

Adults suffering from diabetes have a greater risk of developing cardiovascular disease. That means it's extra important to keep your diabetes under control with diet, exercise, and medication if necessary.

Get a Handle on Stress

Unhealthy responses to stress — such as overeating or smoking — can affect your risk for heart disease. We can't always get rid of the stress in our lives (we know, we've tried!), but we can find healthier ways to deal with it, like exercise or meditation.

Control Your Blood Sugar

Post-meal blood sugar spikes can raise oxidative stress and inflammation — two risk factors of heart disease. Additionally, high blood sugar can directly damage your arteries.

Eat a Heart-Healthy Diet

For a healthy heart, fill your plate with nutrient-rich foods packed with vitamins, minerals, fiber, and other vital nutrients. Say “yes” to vegetables, fruits, whole grains, lean meat, beans, and nuts — and “no” to sodium-rich and processed foods, sodas, too many sweets, and red meat.

Eating a healthy diet and getting the nutrients you need will help you manage a remarkable array of heart disease risk factors, including cholesterol, blood sugar, blood pressure, diabetes, and weight.

In fact, it's one of the best ways to fight heart disease. So, let's focus in on food and supplements — and discover how they can help you on your journey to a healthy heart!

Source: American Heart Association www.heart.org





#2

Eating for
Your Heart

Eating for Your Heart

What you eat doesn't just affect your waistline — it also affects your heart. A healthy heart needs a healthy diet: a diet low in unhealthy fats, sugar, cholesterol, and sodium.

But it's not always easy to make informed decisions about heart-healthy recipes and snacks. To find out how much fat, cholesterol, and sodium should be in your diet, check out this chart featuring the American Heart Association's recommendations. For each food type, it tells you the ideal amount of each nutrient to look for on the label:



Types of Food	Total Fat	Saturated Fat	Trans Fat	Cholesterol	Sodium
Standard FDA-regulated products, including bakery products, beans and legumes, cereals and other grain products, dairy, fruits, juice, mixed dishes (casseroles), potatoes, soups, and vegetables	Less than 6.5 g	1 g or less and 15% or less calories from saturated fat	Less than 0.5 g per label serving	20 mg or less	Between 140 mg and 480 mg , depending on food category
Standard "Extra Lean" products, including canned meat and seafood, deli meats, fresh and frozen meat, and soups with meat or seafood	Less than 5 g per 100 g	Less than 2 g per 100 g	Less than 0.5 g per label serving	Less than 95 mg per 100 g	Between 140 mg and 480 mg , depending on food category
Main dish and meal products, including frozen and packaged meals and entrees (minimum 6 oz)	3 g or less per 100 g of product and 30% or less calories from fat	1 g or less per 100 g of product and less than 10% calories from saturated fat	Less than 0.5 g per label serving	20 mg or less per 100 g of product	600 mg or less per label serving
Whole Grain, with required levels of whole grain and dietary fiber, including bread, cereal, pasta, and tortillas	Less than 6.5 g	1 g or less and 15% of less calories from saturated fat	Less than 0.5 g per label serving	20 mg or less	Between 140 mg and 480 mg , depending on food category
Nuts (whole or chopped), including almonds, hazelnuts, peanuts, pecans, pistachios, walnuts, and some pine nuts	No limit	4 g or less per 50 g only	Less than 0.5 g per label serving	0 mg per label serving	140 mg or less per label serving
Fish with required level of omega-3 fatty acids	16 g or less	4 g or less	Less than 0.5 g per label serving	Less than 95 mg per 100 g	Between 140 mg and 480 mg , depending on food category
Olive Oil (pure olive oil only)	No limit	4 g or less per labeled serving	Less than 0.5 g per 50 g	20 mg or less per 50 g	0 mg
Canola Oil (pure canola/rapeseed oil only)	Less than 6.5 g	1 g or less and 15% of less calories from saturated fat	Less than 0.5 g per 50 g	20 mg or less per 50 g	0 mg
Corn Oil (pure corn oil and vegetable oil blends containing at least 4 g corn oil per FDA serving size)	No limit	4 g or less per labeled serving	Less than 0.5 g per 50 g	20 mg or less per 50 g	0 mg

Table Source: American Heart Association. For more information, visit www.heartcheck.org.

Go Mediterranean for Your Heart-Healthy Diet

You've probably heard people singing the praises of the Mediterranean diet. And for good reason: The Mediterranean diet has been keeping people healthy for thousands of years!

And, now, there's plenty of scientific evidence to back that up. A large study published in the *New England Journal of Medicine* showed that following a Mediterranean diet helped reduce the combined risk of acute heart attack, stroke or cardiovascular death by 30%.¹

When it comes to good health, the Mediterranean diet can't be beat. What's more, this heart-healthy plan features a wide range of delicious foods.

How the Mediterranean Diet Benefits the Heart

Fruits and vegetables help prevent the damage to your body's cells that cause heart disease while whole-grain foods rich in fiber have been shown to help balance cholesterol and decrease inflammation, which is strongly linked to the development of heart disease.

But it's the power of polyphenols that many experts point to when praising the heart-healthy benefits of the Mediterranean diet. These polyphenols include hydroxytyrosol found in olive oil, omega-3s from fish, resveratrol from red wine, and beta-sitosterol from plant foods.

Recent studies have revealed that the high concentration of polyphenols in the Mediterranean diet plays a major role in reducing cardiovascular risk factors, including blood pressure and inflammation.²⁻⁴

Combine this diet with other elements of the Mediterranean lifestyle — including adequate exercise and sleep as well as leisurely meals with friends and family — and soon you'll be on your way to a healthier heart!



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Supplements for a
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#3

**Supplements for
a Healthy Heart**



Supplements for a Healthy Heart

Even if you’re following the Mediterranean plan, you still might need to enhance your diet with some heart-healthy supplements.

Supplements should never take the place of a healthy diet and lifestyle, but sometimes we need a little extra help to get all the nutrients we need for a healthy heart.

To help you, we’ve put together this list of targeted heart-healthy nutrients that have been scientifically shown to improve certain functions of the cardiovascular system.

General Heart Health		
Nutrients	Mechanism	Dose
Ubiquinol CoQ10	Strong antioxidant and improves cellular energy production. ^{5–11}	100–200 mg/day
Omega-3 Fats	Eases inflammation and maintains healthy triglyceride levels. ^{12–15}	1,000–4,000 mg/day
Vitamin D3	Provides protective cardiovascular effects, including improvements in blood pressure, endothelial function, and inflammation. ^{16–18}	5,000–8,000 IU/day
Baby Aspirin	Prevents platelets from forming clots and helps blood flow past plaque narrowing an artery. ^{19, 20}	81 mg/day

Improving Heart Strength		
Nutrients	Mechanism	Dose
Arjuna	Enhances heart muscle tone and supports healthy endothelial function. ^{21, 22}	750 mg/day
Hawthorn	Supports heart muscle contractions and protects against oxidative damage. ^{23–25}	30 mg/day

D-ribose	Maintains healthy energy levels in heart tissue.	5,100 mg/day
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Optimizing Cholesterol and Lowering the Risk of Atherosclerosis		
Nutrients	Mechanism	Dose
Garlic	Reduces cholesterol and triglycerides as well as atherosclerotic plaque buildup. ²⁶⁻²⁹	1,200 mg/day
Niacin	Optimizes the lipid profile by raising HDL cholesterol and changing distribution of LDL cholesterol. ³⁰⁻³²	500 mg/day
Red yeast rice	Reduces total cholesterol, LDL, and triglycerides, and increases HDL. ³³	600 mg/day
Vitamin K	Reduces calcium deposits in the arterial wall. ^{35,36}	2,700 mcg/day

<i>Lactobacillus reuteri</i> 30242	Probiotic that lowers levels of total and LDL cholesterol as well as markers of inflammation. ³⁷	2.5 billion CFU/day
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Improving Arterial Health		
Nutrients	Mechanism	Dose
Pomegranate	Powerful antioxidant and inhibits inflammatory factors to support healthy blood flow. ^{38,39}	400 mg/day
Superoxide dismutase	Protects against nitric oxide degradation and supports healthy arterial function and structure. ⁴⁰⁻⁴²	500 mg/day
Pycnogenol	Improves endothelial function and arterial blood flow and reduces oxidative stress. ^{43,44}	100 mg/day
Gotu kola	Enhances stability of arterial plaque. ^{45,46}	257 mg/day

Sweet orange peel extract	Activates endothelial nitric oxide production, which supports healthy circulation. ⁴⁷	500 mg/day
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Optimizing Blood Pressure

Nutrients	Mechanism	Dose
Pomegranate	Powerful antioxidant that supports blood vessel dilation by inhibiting angiotensin-converting enzyme. ^{48,49}	500 mg/day
Grape seed extract	Increases blood vessel dilation, promoting healthy blood flow and blood pressure. ⁵⁰⁻⁵²	150 mg/day
Whey peptides	Inhibits angiotensin-converting enzyme to maintain already normal blood flow and blood pressure. ⁵³	1,700 mg/day
Olive leaf extract	Supports healthy blood pressure already within normal range. ⁵⁴	500 mg/day
Celery seed extract	Supports healthy inflammatory response and promotes healthy blood pressure already within normal range. ⁵⁵⁻⁵⁷	150 mg/day
Blend of Quercetin, Myricetin, Myricitrin	Antioxidants that have been shown to help block the receptor for a hormone that triggers constriction of arteries. ^{58,59}	Proprietary blend totaling 170 mg/day, usually in divided doses.

Managing Arrhythmias

Nutrients	Mechanism	Dose
Magnesium	Helps maintain heart's electrical stability and lowers risk of ventricular arrhythmias. ⁶⁰	500 mg/day
N-acetyl-cysteine (NAC)	Reduces oxidative stress and inflammation to prevent development of atrial fibrillation. ⁶¹	1,200 mg/day
Vitamin C	Antioxidant properties that protect against atrial fibrillation. ^{62,63}	1,000 mg/day
Natural Vitamin E	Antioxidant properties that reduce incidence of atrial fibrillation. ⁶³	400 IU/day



#4

Blood Tests for Heart Disease



Blood Tests for Heart Disease

One of the best ways to prevent heart disease, blood tests can identify potential problems early — and give you a head start on controlling them!

This chart highlights several available blood tests that can help paint a clearer picture of your heart health ... and what your real risks are.

Blood Test	Reason
Cholesterol and Lipid Profiles	Estimates risk of coronary heart disease by measuring levels of total cholesterol, triglycerides, HDL cholesterol, and LDL cholesterol.
Apolipoprotein Assessment	Tests the ratio of apolipoproteins A-1 and B to evaluate survival rate or risk factors for individuals with past heart attacks and peripheral vascular diseases.
Oxidized LDL Panel	Measures the dangerous inflammation in the arterial walls, which contributes to both vulnerable plaque formation and rupture, to determine cardiovascular risk.
PLAC® Test	Measures the function in the artery wall of Lp-PLA2—an inflammatory marker critical in the formation of rupture-prone plaque. A novel risk predictor in people with no prior history of cardiovascular events.
NMR LipoProfile®	Advanced test to identify people at risk for lipid-related coronary heart disease. Includes a standard cholesterol test and tests for LDL, small LDL, and HDL particle numbers as well as LDL particle size.
Lipoprotein (a)	Measures the blood level of small dense lipoproteins, which are a direct link to atherosclerosis and a strong indicator for coronary heart disease.
C-reactive Protein	Measures the level of systemic inflammation, which places you at risk for heart disease when uncontrolled.
Fasting Blood Sugar	Checks for high blood glucose levels, which are associated with heart disease.
Vitamin D3	Measures blood level of vitamin D, which is critical for optimal heart health.
Homocysteine	Tests for high blood levels of homocysteine, which can damage the cells that line the arteries and result in vascular inflammation, blood clot formation, and arterial plaque rupture.
B-Type Natriuretic Peptide (BNP)	Checks for high blood levels of BNP, which predicts the risk for heart failure, first cardiovascular events, and atrial fibrillation, even in people with no clinical evidence of cardiovascular disease.
Galectin 3	Tests for the biomarker of cardiac fibrosis, which helps determine the risk of heart failure.
RBC Magnesium	Measures level of RBC magnesium, which plays many vital roles in preventing heart disease, controlling blood pressure, and maintaining healthy cholesterol levels.

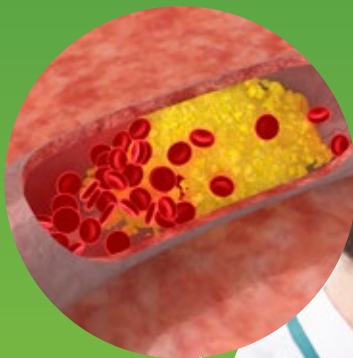
Why Aren't Standard Cholesterol Tests Enough?

Basic cholesterol tests play an important role in determining your risk for cardiovascular disease. But they don't tell the whole story.

That's because routine lipid screening doesn't provide information on the dangerous inflammation present in the walls of your arteries— inflammation that is often the primary contributor to your risk for heart disease.

So don't assume that you're not at risk for a heart attack just because you have normal cholesterol levels. Advanced blood tests and detailed analysis are the keys to uncovering your **true cardiovascular risk!**

Next time, ask your doctor to order an advanced cholesterol test. It will provide more information for your doctor to analyze and correctly assess your risk of heart disease.



1

A Change of Heart Health



Supplements for a Healthy Heart

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Eating for Your Heart



Blood Tests for Heart Disease

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