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Take Action.
Live Healthy!



Understanding & Managing **CHOLESTEROL**

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Understanding Cholesterol



Understanding and improving cholesterol is important for men, women and children of all ages. High cholesterol contributes to a higher risk for cardiovascular diseases (CVD), such as heart disease and stroke.

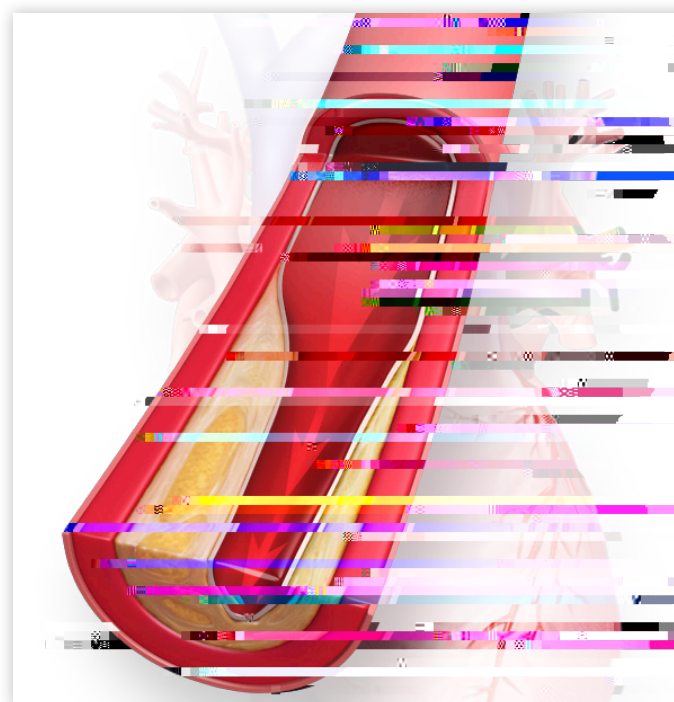
Cholesterol is a waxy, fat-like substance your body produces naturally. It's in the bloodstream and in your body's cells. Your body makes all the cholesterol it needs and uses it to keep you healthy. It helps make new cells, some hormones, and substances that help digest foods.

Cholesterol is part of a healthy body. But having too much of it in your blood can be a problem. In addition to what your body makes, the foods you eat can impact your cholesterol levels as well. Two types of lipoproteins carry cholesterol to and from cells.

LDL cholesterol is often called the "bad" kind. When you have too much LDL cholesterol in your blood, it can join with fats and other substances to build up in the inner walls of your arteries, creating a thick, hard substance called plaque. The arteries can become clogged and narrow, and a blood clot may form at this location or a piece may break off and travel in the bloodstream, causing a heart attack or stroke. With LDL, lower is better.

The "good" kind of cholesterol is HDL. It removes the "bad" LDL cholesterol away from the arteries and back to the liver, so it can be removed from your bloodstream. HDL is found in your arteries.

Saturated fats are the most common type of fat in your body. They come from food, and your body also makes cholesterol from saturated fats.



Your health care professional will do a blood test to measure your cholesterol levels. This may be a “fasting” or “non-fasting” test. Cholesterol levels are measured in milligrams per deciliter (mg/dL). The test gives you four results: total cholesterol, LDL (bad) cholesterol, HDL (good) cholesterol and triglycerides (blood fats).

The best approach to risk reduction goes beyond cholesterol levels alone. It considers overall risk assessment and reduction. It's still important to know your cholesterol numbers but work with your health care professional to treat your risk.

Find out your risk with our **Check. Change. Control. Calculator™**. In minutes, you'll learn your risk for a heart attack or stroke. Then we'll get you on the path to a stronger, healthier you.

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Myth:

Fact:

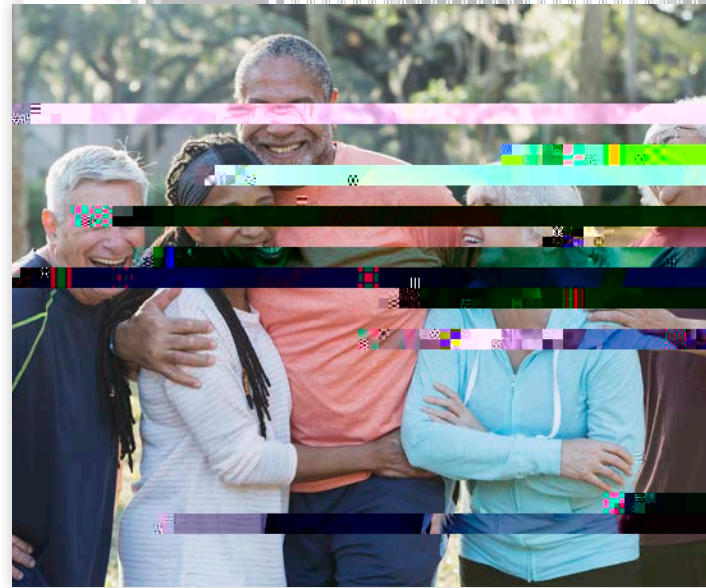
You can take charge of your health. If you are 20 or older, ask your health care professional to conduct a cholesterol test, assess your risk factors and determine your risk for heart attack or stroke. If you're between 20 and 39, your health care professional should assess your risk for heart disease if you have 2 or more risk factors.

Fact:

how intense your treatment may need to be, or even the medications that might be best for you. Some examples include:

- Black people have higher risk of atherosclerotic cardiovascular disease (ASCVD) than some other groups.
- Black people may be more sensitive to statins.
- Black people are more likely to have high blood pressure.
- Black people tend to have higher rates of certain risk factors.

Talk to your health care professional if you think your race/ethnicity may be an important factor in your risk or treatment of heart disease or stroke.



Familial hypercholesterolemia (FH) is a condition that runs in the family where people have very high LDL cholesterol levels in their blood - above 190 milligrams per deciliter (mg/dL).

Everyone's cholesterol levels tend to rise with age, but people with FH are born with high cholesterol. As time passes, it gets worse. FH can't be treated by diet and exercise alone. These lifestyle changes help will lower cholesterol, but medication is needed.

Talk to your health care professional if you have a family history of heart disease or very high cholesterol levels at an early age.



If you have high LDL cholesterol, understanding your risk for heart disease is one of the most important things you can do. There's no

Cholesterol Medications



If your health care professional has decided you need to take medicine to reduce high cholesterol, it's because you're at borderline to intermediate risk and have risk enhancing factors or are at high risk for heart disease or stroke. Usually the treatment combines healthy lifestyle changes, including diet and physical activity, and medicine.

Various medications can lower blood cholesterol levels. Statins are recommended for most patients and have been directly associated with reducing risk for heart attack and stroke. Statins continue to provide the most effective lipid-lowering treatment in most cases.

Statins also help to prevent the production of cholesterol in the liver. Their major effect is to



You should talk to your health care professional about the

- with known CVD, including stroke, caused by atherosclerosis.
- Receiving treatment for CVD, including stroke, caused by atherosclerosis.
- Receiving treatment for CVD, including stroke, caused by atherosclerosis, with risk enhancing factors.
- Receiving treatment for CVD, including stroke, caused by atherosclerosis, with a 10-year risk of developing CVD from atherosclerosis.

Some people who don't fall into these major categories

are those who have a family history of heart disease.

Your health care professional will monitor your progress with your statin therapy and recommended lifestyle changes. If you are having serious side effects or don't have the desired response to statin therapy and lifestyle changes alone, they may change the dose or consider adding on other medications as well.

If you have known CVD and are already taking the highest tolerated statin and your LDL-C is still 70 or above, one or more of the following medicines may be prescribed. They all can be taken in combination with a statin.

_____ works by preventing cholesterol from being absorbed in the intestine. It is the most commonly used non-statin agent.

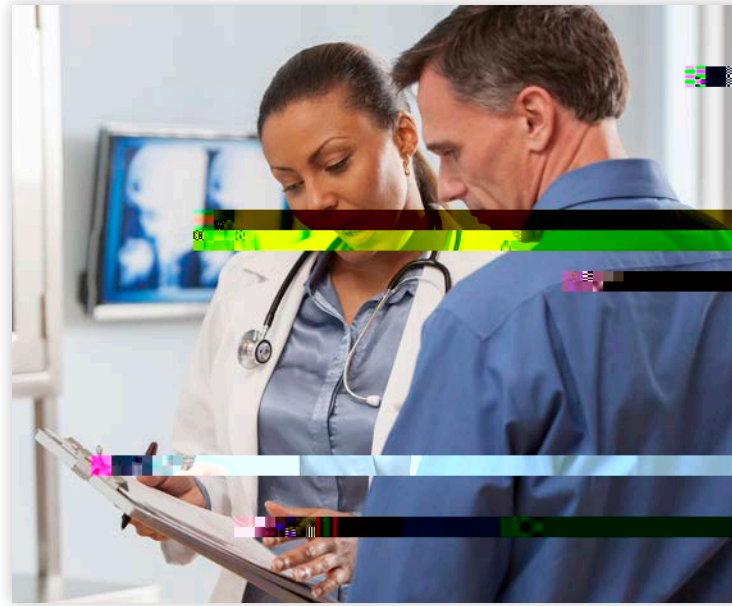
_____ cause the intestine to get rid of more cholesterol. Some names are cholestyramine, cholestipol and colesevelam.

_____ are powerful LDL-lowering drugs. They bind to and inactivate a protein in liver to lower LDL (bad) cholesterol. Some names are alirocumab and evolocumab.

The following medicines are triglyceride-lowering drugs and have mild LDL- lowering action, but data does not support their use as an add-on to statins.

By working together, you and your health care professional
While a healthy lifestyle remains a critical component to prevent and treat high cholesterol, you and your health care professional may discuss adding medications to help improve your cholesterol and lower your risk of having a cardiovascular event or stroke in the future.

When medication is needed, statins continue to provide the most effective lipid-lowering treatment in most cases. If you have problems taking a statin or if a statin alone doesn't lower your LDL cholesterol enough, there are some other drug options. For example, if you've very high cholesterol or if you have already had a cardiovascular event or a stroke, you and your health care professional also may discuss adding other LDL-lowering drugs including bile acid prescription.



These Questions Can Help Your Start the Conversation:

- ♥ *Do you think I'm at risk for a heart attack or stroke?
Do I have any other factors that can increase my risk?*
- ♥ *Do you think statins or other medications are right for me?
What are some of the pros and cons about taking statins?*
- ♥ *How long will I need to take these medicines?*
- ♥ *How will we know if they are working ?*
- ♥ *Will the medications be enough to lower my risk?
Do I need to make other changes as well?*
- ♥ *Are there any side effects I should look for when taking this medication?*
- ♥ *Are there any medicines, foods, or dietary supplements I should avoid taking with this medication?*
- ♥ *Where can I learn more about this medicine?*

Your Treatment Plan & Lifestyle Changes



Work with your health care professional on an agreed upon plan that works best for you and your family. For support, encourage your whole family to join you in your heart-healthy lifestyle.

This includes:

- Making sure you understand what cholesterol is and how to manage it.
- Getting regular physical activity.
- Not smoking.
- Eating a heart-healthy diet

Your health care professional is there to help you reach your health goals, including keeping your cholesterol at healthy levels. Work closely with your clinician to make the best decisions for you, and then stick to the plan. Making decisions together is the best way to create a treatment plan you'll be more likely to stick to.

Take part in making decisions about your health together and

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†

- Your 10-year risk is high
- You've had a heart attack, stroke, or blood clots
- You have very high LDL cholesterol levels
- You have diabetes

Name and Dose of Medication

†

[Redacted]

†

[Redacted]

†

Discuss potential out-of-pocket cost and

{ Yes { No

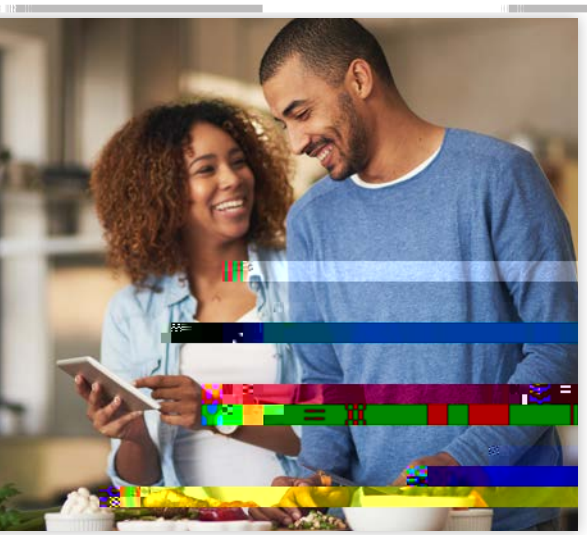
Eating a heart-healthy diet can help you improve your cholesterol and reach and maintain a healthy weight and blood pressure.

The following tips can help you get started.



Focus on eating foods low in saturated and trans fats such as:

- A variety of fruits and vegetables.
- A variety of whole-grain foods like whole grain bread, cereal, pasta and brown rice. At least half of the servings should be whole grains.
- Fat-free, 1% and low-fat milk products.
- Poultry without skin and lean meats. When you choose to eat red meat and pork, select options labeled “loin” and “round.” These cuts usually have the least amount of fat.
- Fish. If you eat fish, it should be divided over two servings.
- Unsalted nuts, seeds, and legumes (dried beans or peas).
- Fat-free or low-fat dairy products.



- Foods with a lot of sodium (salt).
- Sweets and sugar-sweetened beverages.
- Red meats and fatty meats that aren't trimmed.
- Full-fat dairy products such as whole milk, cream, ice cream, butter, and cheese.
- Baked goods made with saturated and trans fats like donuts, cakes and cookies.
- Foods that list the words “hydrogenated oils” in the ingredients panel.
- Tropical oils such as coconut, palm and palm kernel oils.
- Solid fats like shortening, stick margarine and lard.
- Fried foods.

Studies have shown having a pet can help:

- $\frac{1}{x} \in \mathbb{R}, \frac{1}{-x} = -\frac{1}{x}, \frac{1}{\frac{1}{x}} = x^3$
- Relieve stress.
- Lower blood pressure and cholesterol levels.
- Boost overall happiness and wellbeing.

It's no surprise that people who walk their dogs are more likely to get the recommended amount of physical activity than those who don't. Pets also provide social support, which is an important factor in helping you stick with new healthy habits.

Sleep could be the key to unlocking a healthier you. Sleep issues, especially not sleeping enough, sleep apnea and insomnia can increase the risk of obesity, high blood pressure, Type 2 diabetes, stroke, coronary heart disease and overall CVD.

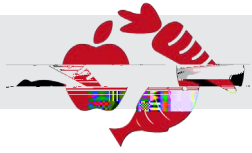
Use these tips to get a better night's sleep:

- Add some stress-relieving exercise to each day.
- Plug in your phone and other electronic devices away from your bed.
- Try to go to bed and wake up at the same time each day.

Studies have offered promising results about the impact of meditation on cardiovascular risk reduction. There also is evidence that it can help people manage insomnia, depression and anxiety.

Practicing mindfulness and meditation may help you:

-



- † Do you regularly eat vegetables, fruit and nuts?
- † If you eat dairy products, do you choose low-fat options?
- † If you eat poultry, do you remove the skin?
- † Do you limit your intake of saturated and trans fats?

- † Do you choose healthier cooking oils (soft margarine, vegetable oil or olive oil), instead of solid fats like butter, bacon or lard?
- † Do you eat legumes (beans and peas) and lentils?
- † Do you pick water or other healthier drinks instead of sugary drinks?

Are there any you could start doing?

1. Do you limit your intake of saturated and trans fats?

9 Stay away from fad diets or diets that have very high or very low amounts of fat or carbohydrates.

9 Adapt your own cultural or food preferences.

9 If your health care professional told you that your LDL cholesterol levels are too high, pass up foods high in saturated and trans fat.



1. How many times per week do you exercise?
2. How many minutes per week do you exercise?
3. How much time do you spend each day sitting in front of a television, computer, or other electronic device?

What's your answer for?

1. If you exercise less than once a week, this is a great option.

2. If you exercise for less than 150 minutes per week, moderate amounts of activity can help). This may seem like a lot, but you can do it!

Bicycling

Tennis

Dancing

Running

Swimming Laps

Jumping Rope

Out your BMI, you can use the National Institutes of Health online [BMI calculator](#).

A BMI of 25 to 29.9 is overweight and 30 and higher is obese.

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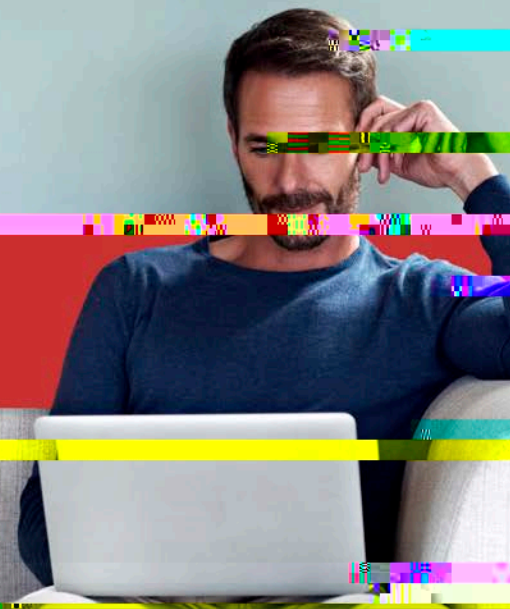
If you're overweight or obese, changing your diet and exercise habits may help you lose weight. If you're at a normal body weight, keeping a healthy diet and exercise habits may help keep you there. The American Heart Association has great resources and recipes available to help you along the way. Need a little more help? Your health care professional or a nutritionist may be able to give you



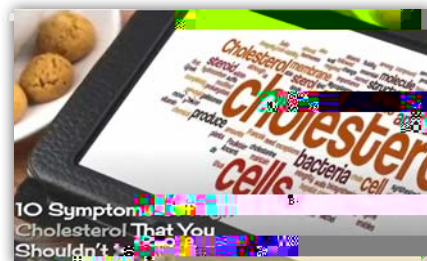
Quitting smoking can be hard, but you can do it! Your health care professional can help you make a plan and the AHA has resources at [f_R€3t @A-tg, q tng e³4](#) to help get started.

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Resources



What is Cholesterol?



Understanding Familial Hypercholesterolemia (FH)



How to Manage High Cholesterol

[* *What is Cholesterol?*](#) | [* *Understanding Familial Hypercholesterolemia \(FH\)*](#) | [* *How to Manage High Cholesterol*](#)

* The links with asterisks provided above are for convenience only and are not an endorsement of either the linked-to entity or any product or service.

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