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Atherosclerosis

Hardening of the arteries

Hardening of the arteries, also called atherosclerosis, is a common disorder. It occurs when fat, cholesterol, and other substances build up in the walls of arteries and form hard structures called plaques.

Over time, these plaques can block the arteries and cause problems throughout the body.

Hardening of the arteries is a process that often occurs with aging. As you grow older, plaque buildup narrows your arteries and makes them stiffer. These changes make it harder for blood to flow through them.

Clots may form in these narrowed arteries and block blood flow. Pieces of plaque can also break off and move to smaller blood vessels, blocking them.

Either way, the blockage starves tissues of blood and oxygen, which can result in damage or tissue death. This is a common cause of heart attack and stroke.

High blood cholesterol levels can cause hardening of the arteries at a younger age.

For many people, high cholesterol levels are the result of an unhealthy lifestyle -- most commonly, eating a diet that is [high in fat](#). Other risk factors are heavy alcohol use, lack of exercise, and being overweight.

Other risk factors for hardening of the arteries are:

- Diabetes
- Family history of hardening of the arteries
- High blood pressure
- Smoking

Symptoms

Hardening of the arteries does not cause symptoms until blood flow to part of the body becomes slowed or blocked.

If the arteries to the heart become narrow, blood flow to the heart can slow down or stop. This can cause chest pain ([stable angina](#)), shortness of breath, and other symptoms.

Narrowed or blocked arteries may also cause problems and symptoms in your intestines, kidneys, legs, and brain.

Exams and Tests

A health care provider will perform a physical exam and listen to the heart and lungs with a stethoscope. Hardening of the arteries can create a whooshing or blowing sound ("bruit") over an artery.

Some guidelines recommend having your first cholesterol test at age 20. Everyone should have their first screening test by age 35 in men, and age 45 in women. (Note: Different experts recommend different starting ages.)

A number of imaging tests may be used to see how well blood moves through your arteries.

- Doppler tests use ultrasound or sound waves.
- [Magnetic resonance arteriography](#) (MRA) is a special type of MRI scan
- Special CT scans called CT angiography
- [Arteriograms or angiography](#) use x-rays to see inside the arteries

Treatment

Quit smoking -- this is the single most important change you can make to reduce your risk of heart disease and stroke.

Other lifestyle changes can also reduce your risk of hardening of the arteries:

- Avoid fatty foods. Eat well-balanced meals that are low in fat and cholesterol. Include several daily servings of fruits and vegetables. Adding fish to your diet at least twice a week may be helpful. However, do not eat fried fish.
- Limit how much alcohol you drink -- one drink a day for women, two a day for men.
- Exercise for 30 minutes a day if you are not overweight, and for 60 - 90 minutes a day if you are overweight. Talk to your doctor before starting a new exercise plan, especially if you have been diagnosed with heart disease or you have ever had a heart attack.

Get your blood pressure checked every 1 - 2 years before age 50 and yearly after age 50. Have your blood pressure checked more often if you have high blood pressure, heart disease, or you have had a stroke. Talk to your doctor about how often you should have your blood pressure checked.

If your blood pressure is high, it is important for you to lower it and keep it under control.

- Everyone should keep their blood pressure below 140/90 mmHg
- If you have diabetes, kidney disease, or have had a stroke or heart attack, your blood pressure should probably be lower. Ask your doctor what your blood pressure should be.

Your doctor may want you to take medicine for [high cholesterol levels](#) if lifestyle changes do not work. This will depend on:

- Your age
- Whether you have heart disease or other blood flow problems
- Whether you smoke or are overweight
- Whether you have high blood pressure or diabetes

Your doctor may suggest taking aspirin or another medicine to help prevent blood clots from forming in your arteries. These medicines are called antiplatelet drugs. DO NOT take aspirin without first talking to your doctor.

Outlook (Prognosis)

Hardening of the arteries cannot be reversed once it has occurred. However, lifestyle changes and treating high cholesterol levels can prevent or slow the process from becoming worse.

Possible Complications

In some cases, the plaque is part of a process that causes weakening of the wall of an artery. This can lead to a bulge in an artery called an aneurysm. Aneurysms can break open (rupture). This causes bleeding that can be life threatening.

See:

- [Brain aneurysm](#)
- [Abdominal aneurysm](#)
- [Chest aneurysm](#)

Alternative Names

Atherosclerosis; Arteriosclerosis; Plaque buildup - arteries

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