



Atherosclerosis

Atherosclerosis is a disease in which plaque builds up inside your arteries. Arteries are blood vessels that carry oxygen-rich blood to your heart and other parts of your body.

Plaque is made up of fat, cholesterol, calcium, and other substances found in the blood. Over time, plaque hardens and narrows your arteries, reducing blood flow to your organs (such as your heart) and other parts of your body. This can lead to serious problems, including heart attack, stroke, or even death.

Overview

Atherosclerosis can affect any artery in the body, including arteries in the heart, brain, arms, legs, and pelvis. As a result, different diseases may develop based on which arteries are affected.

Coronary heart disease (CHD), also called coronary artery disease, occurs when plaque builds up in the coronary arteries. These arteries supply oxygen-rich blood to your heart. CHD can lead to angina (chest pain) and heart attack. CHD is the leading cause of death in the United States for both men and women.

Carotid artery disease occurs when plaque builds up in the carotid arteries. These arteries supply oxygen-rich blood to your brain. Carotid artery disease can lead to stroke.

Peripheral arterial disease (PAD) occurs when plaque builds up in the major arteries that supply

oxygen-rich blood to your limbs and pelvis. PAD can lead to numbness and pain and may cause infections.

Causes and Risk Factors

The exact cause of atherosclerosis isn't known. Research suggests that atherosclerosis starts when certain factors damage the inner layers of the arteries. These factors include smoking, high amounts of certain fats and cholesterol in the blood, high blood pressure, and high amounts of sugar in the blood due to insulin resistance or diabetes.

When damage occurs, your body starts a healing process. This process causes plaque to build up where the arteries are damaged. The buildup of plaque in the arteries may start in childhood.

Certain traits, conditions, or habits raise your risk for atherosclerosis. These conditions are known as risk factors. The major risk factors for atherosclerosis include:

- Unhealthy blood cholesterol levels
- High blood pressure
- Smoking
- Insulin resistance
- Diabetes
- Overweight or obesity
- Lack of physical activity
- Age (as you get older, your risk increases)
- Family history of early heart disease

You can control most of these risk factors, which can help delay or prevent atherosclerosis.



Treatment and Prevention

For some people, lifestyle changes may be the only treatment needed. Lifestyle changes include following a heart healthy diet, doing physical activity regularly, maintaining a healthy weight, quitting smoking, and reducing stress.

You may need medicines to treat atherosclerosis if lifestyle changes aren't enough. Medicines can help control atherosclerosis risk factors and may help slow or reverse plaque buildup.

If you have severe atherosclerosis, your doctor may recommend a medical procedure or surgery, such as angioplasty, bypass grafting, or carotid artery surgery.

Improved treatments have reduced the number of deaths from atherosclerosis-related diseases. These treatments also have improved the quality of life for people who have these diseases. Still, the number of people diagnosed with atherosclerosis remains high.

If you've been diagnosed with atherosclerosis, see your doctor for ongoing care. Follow your treatment plan and take all medicines as your doctor prescribes. Call your doctor if you have new or worsening symptoms.

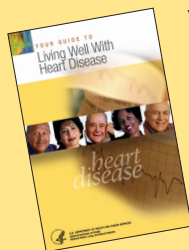
Learn More

More information about atherosclerosis is available from the National Heart, Lung, and Blood Institute (NHLBI) Web site at www.nhlbi.nih.gov (under Health Information for the Public). Podcasts and Spanish-language articles also can be found in the online Diseases and Conditions Index at www.nhlbi.nih.gov/health/dci.

You also can order or download information on heart disease from the NHLBI Web site or by calling the NHLBI Health Information Center at 301-592-8573 (TTY: 240-629-3255).

Want More Information?

These NHLBI publications will help you control atherosclerosis and its related diseases!



Your Guide to Living Well With Heart Disease (#06-5270)

This easy-to-read booklet for people who have heart disease suggests ways to protect and improve heart health—providing information on heart disease screening, risk factors, and treatments.

In Brief: Your Guide to Living Well With Heart Disease (#06-5716)

Critical messages from "Your Guide to Living Well With Heart Disease" are provided in this easy-to-read fact sheet.



Also of interest:

- **Facts About Peripheral Arterial Disease (P.A.D.) (#06-5837)**
This fact sheet provides easy-to-read information on P.A.D., which raises your risk for stroke and

heart attack. Available in English and Spanish, as well as a version tailored for African Americans.

- **Stay in Circulation: Take Steps To Learn About P.A.D. Wallet Card (#07-6145)**
This handy card is sized perfectly to slip into a wallet and carry to your doctor's office. Provides information about P.A.D., its risk factors, symptoms, and treatment options, plus questions to ask your doctor.



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To Order: Visit www.nhlbi.nih.gov or <http://email.nhlbihin.net> or call **301-592-8573**