National Heart,
Lung, and Blood Institute

AT-A-GLANCE:

Coronary Heart Disease

Coronary heart disease (CHD), also called coronary artery disease, is the leading cause of death in the United States for both men and women. CHD occurs when plaque builds up inside the coronary arteries. These arteries supply your heart muscle with oxygen-rich blood.

Plaque is made up of fat, cholesterol, calcium, and other substances found in the blood. Over time, plaque hardens and narrows the arteries, reducing blood flow to your heart muscle.

Eventually, an area of plaque can rupture, causing a blood clot to form on the surface of the plaque. If the clot becomes large enough, it can mostly or completely block the flow of oxygen-rich blood to the part of the heart muscle fed by the artery. This can lead to angina or a heart attack.

Angina is chest pain or discomfort that occurs when not enough oxygen-rich blood is flowing to an area of your heart muscle. Angina may feel like pressure or squeezing in your chest. The pain also may occur in your shoulders, arms, neck, jaw, or back.

A heart attack occurs when blood flow to an area of your heart muscle is completely blocked. This prevents oxygen-rich blood from reaching that area of heart muscle, causing it to die. Without quick treatment, a heart attack can lead to serious problems or death.

Over time, CHD can weaken the heart muscle and lead to heart failure and arrhythmias. Heart failure is a condition in which your heart can't pump enough blood throughout your body. Arrhythmias are problems with the rate or rhythm of your heartbeat.

Causes and Risk Factors

Research suggests that CHD starts when certain factors damage the inner layers of the coronary 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 coronary arteries may start in childhood.

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

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

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Lifestyle changes, medicines, and/or medical procedures can prevent or treat CHD in most people.

Treatment and Prevention

Taking action to control your risk factors can help prevent or delay CHD. Your chance of developing CHD goes up with the number of risk factors you have.

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 CHD if lifestyle changes aren't enough. Medicines can help control CHD risk factors and relieve CHD symptoms. Some people who have CHD also need a medical procedure to treat the disease. Angioplasty and coronary artery bypass grafting are two procedures used to treat CHD.

If you've been diagnosed with CHD, 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 CHD 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, videos, 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 take charge of your heart health!

Your Guide to a Healthy Heart (#06-5269)
This booklet provides up-to-date information and practical tips about establishing and maintaining a heart healthy lifestyle, including understanding the risk factors for heart disease, determining your risk, and establishing a plan for heart health. $4 each

In Brief: Your Guide to a Healthy Heart (#06-5715)
Critical messages from "Your Guide to a Healthy Heart" are provided in this easy-to-read fact sheet. $0.25 each

Also of interest:

- **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. $4 each
- **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. $1.25 each

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