

# HEART DISEASE

## Signs and Symptoms

Title: Cardiology

Source: CDC

Link: <http://www.cdc.gov/heartdisease/about.htm>

### Symptoms of a Heart Attack

The five major symptoms of a heart attack are—

- Pain or discomfort in the jaw, neck, or back.
- Feeling weak, light-headed, or faint.
- Chest pain or discomfort.
- Pain or discomfort in arms or shoulder.
- Shortness of breath.

If you think that you or someone you know is having a heart attack, you should call 9–1–1 immediately.

### Heart Attack Signs

If the blood supply to the heart muscle is cut off, a heart attack can result. Cells in the heart muscle do not receive enough oxygen and begin to die. The more time that passes without treatment to restore blood flow, the greater the damage to the heart. Having high blood pressure or high blood cholesterol, smoking, and having had a previous heart attack, stroke, or diabetes can increase a person's chances of having a heart attack.

According to the American Heart Association, about 785,000 Americans have an initial heart attack and another 470,000 have a recurrent heart attack each year. According to a CDC report, almost half of the cardiac deaths in 1999 occurred before emergency services and hospital treatment could be administered.

It is important to recognize the signs of a heart attack and to act immediately by calling 9–1–1. A person's chances of surviving a heart attack are increased if emergency treatment is given to the victim as soon as possible.

# Coronary Artery Disease (CAD)

Coronary artery disease occurs when a substance called plaque builds up in the arteries that supply blood to the heart (called coronary arteries). Plaque is made up of cholesterol deposits, which can accumulate in your arteries. When this happens, your arteries can narrow over time. This process is called atherosclerosis.

Plaque buildup can cause angina, the most common symptom of CAD. This condition causes chest pain or discomfort because the heart muscle doesn't get enough blood. Over time, CAD can weaken the heart muscle. This may lead to heart failure, a serious condition where the heart can't pump blood the way that it should. An irregular heartbeat, or arrhythmia, can also develop.

For some people, the first sign of CAD is a heart attack. A heart attack occurs when plaque totally blocks an artery carrying blood to the heart. It also can happen if a plaque deposit breaks off and clots a coronary artery.

## Important Tests

Doctors can determine your risk for CAD by checking your blood pressure, cholesterol, and blood glucose, and by finding out more about your family's history of heart disease. If you're at high risk or already have symptoms, your doctor can perform several tests to diagnose CAD including—

Test	What it Does
<b>ECD or EKG</b> ( <b>electrocardiogram</b> )	Measures the electrical activity, rate, and regularity of your heartbeat.
<b>Echocardiogram</b>	Uses ultrasound to create a picture of the heart.
<b>Exercise stress test</b>	Measures your heart rate while you walk on a treadmill. This helps to determine how well your heart is working when it has to pump more blood.
<b>Chest X-ray</b>	Creates a picture of the heart, lungs, and other organs in the chest.
<b>Cardiac catheterization</b>	Checks the inside of your arteries for blockage by threading a thin, flexible tube through an artery in the groin, arm, or neck to reach the coronary artery. Can measure blood pressure and flow in the heart's chambers, collect blood samples from the heart, or inject dye into the coronary arteries.
<b>Coronary angiogram</b>	Monitors blockage and flow of blood through the heart. Uses X-rays to detect dye injected via cardiac catheterization.

## Treatment

If you have CAD, there are steps you can take to lower your risk for having a heart attack or worsening heart disease. Your doctor may recommend lifestyle changes such as eating a healthier diet, exercising, and not smoking.

Medications may also be necessary. Medicines can treat CAD risk factors such as high cholesterol, high blood pressure, an irregular heartbeat, and low blood flow. In some cases, more advanced treatments and surgical procedures can help restore blood flow to the heart.

## Heart Attack

A heart attack, also called a myocardial infarction, occurs when a section of the heart muscle dies or gets damaged because of reduced blood supply. Coronary Artery Disease (CAD) is the main cause of heart attack. A less common cause is a severe spasm of a coronary artery, which also can prevent blood supply from reaching the heart.

**It is important to seek treatment for a heart attack immediately.** Otherwise, further damage to the heart muscle can occur and an irregular heart rhythm may develop.

Sudden cardiac arrest—the stopping of the heart—occurs when the heart stops completely. Unless treated, a person whose heart has stopped will die within minutes.

### Treatment

People who experience a heart attack need emergency care such as cardiopulmonary resuscitation (CPR) or electrical shock (defibrillation). That's why you need to act quickly once you notice the signs and symptoms of heart attack.

If you think you or someone you know is having a heart attack, **call 9-1-1 immediately.** Bystanders who have been trained to perform CPR or use a defibrillator may be able to help the victim until emergency medical personnel arrive. At the hospital, doctors can perform tests to determine whether a heart attack is occurring and decide on the best treatment.

**Remember, the chances of surviving a heart attack are greater when emergency treatment begins quickly.**

### Life After an Attack

If you've had a heart attack, your heart may still be damaged. This could affect your heart's rhythm, pumping action, and blood circulation. You may also be at risk for another heart attack or conditions such as stroke, kidney disorders, and peripheral arterial disease. But, there are steps you can take to lower your chances of having future health problems.

Your doctor may recommend cardiac rehabilitation, which is a program that can help you make lifestyle changes to improve your heart health and quality of life. These changes may include taking medication, changing what you eat, increasing your physical activity, stopping smoking,

and managing stress. Also, be sure to talk with your doctor about everyday activities. He or she may want you to limit work, travel, sex, or exercise.

## Other Related Conditions

**Acute coronary syndrome** is a general term that includes heart attack and unstable angina.

**Angina**, a symptom of CAD, is chest pain or discomfort that occurs when the heart muscle is not getting enough blood. Angina may feel like pressure or a squeezing pain in the chest. The pain may also occur in the shoulders, arms, neck, jaw, or back, and it may feel like indigestion.

There are two forms of angina—stable or unstable. Stable angina happens during physical activity or under mental or emotional stress. Unstable angina is chest pain that occurs even while at rest, without apparent reason. This type of angina is a medical emergency.

**Aortic aneurysm and dissection** are conditions in which the aorta, the major artery that carries blood from the heart to the body, stretches (aneurysm) and ruptures (dissection). A rupture is a medical emergency.

**Arrhythmias** are irregular, or abnormally fast or slow, heartbeats. Some arrhythmias are serious. One example is ventricular fibrillation. This type of arrhythmia causes a severely abnormal heart rhythm that leads to death unless treated right away with an electrical shock to the heart (called defibrillation). Other arrhythmias are less severe, but can develop into more serious conditions such as atrial fibrillation.

**Atrial fibrillation** is a type of arrhythmia that can cause rapid, irregular beating of the heart's upper chambers. Blood may pool and clot inside the heart, increasing the risk for heart attack and stroke. For more information, [see our atrial fibrillation fact sheet](#).

**Cardiomyopathy** occurs when the heart muscle becomes enlarged or rigid. This can lead to inadequate heart pumping or other problems. Cardiomyopathy has many causes, including prior heart attacks and viral or bacterial infections.

**Congenital heart defects** are malformations of heart structures that are present at birth. They are the most common type of major birth defect. Examples include abnormal heart valves or holes in the heart's walls that divide the chambers. Congenital heart defects range from minor to severe. For more information, see [CDC's Birth Defects Web site](#).

**Heart failure**, also called congestive heart failure or chronic heart failure, is a serious condition that occurs when the heart can't pump enough blood to meet the body's needs. It does not mean that the heart has stopped.

The only cure for heart failure is a heart transplant. However, heart failure can be managed with medication. [Learn more from our heart failure fact sheet](#).

**Peripheral arterial disease (PAD)** is hardening of the arteries that supply blood to the arms and legs. PAD usually results from atherosclerosis, the buildup of plaque and narrowing of the arteries. With this condition, blood flow and oxygen to the arm and leg muscles are low or even fully blocked. Signs and symptoms include leg pain, numbness, and swelling in the ankles and feet.

**Rheumatic heart disease** is damage to the heart valves caused by a bacterial (streptococcal) infection called rheumatic fever.

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