

HEART DISEASE

What is Heart Disease?

Heart disease is a term that includes several more specific heart conditions. The most common heart disease in the US is coronary artery disease (CAD). CAD occurs when the arteries that supply blood to the heart muscle become hardened and narrowed due to the buildup of plaque. The narrowing and buildup of plaques is called atherosclerosis. Plaques are a mixture of fatty and other substances including cholesterol and other lipids. Blood flow to the heart is reduced, which reduces oxygen to the heart muscle. This can lead to heart attack. Other heart conditions include angina, heart failure, and arrhythmias. Find out more about heart diseases.

What are symptoms of heart attack?

The National Heart Attack Alert Program notes these major symptoms of a heart attack:

- Chest discomfort. Most heart attacks involve discomfort in the center of the chest that lasts for more than a few minutes, or goes away and comes back. The discomfort can feel like uncomfortable pressure, squeezing, fullness, or pain.
- Discomfort in other areas of the upper body. This can include pain or discomfort in one or both arms, the back, neck, jaw, or stomach.
- Shortness of breath. This often comes along with chest discomfort. But it also can occur before chest discomfort.
- Other symptoms. These may include breaking out in a cold sweat or experiencing nausea or light-headedness.

What should a bystander do if they think someone is having a heart attack?

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

Why is there a need to act fast?

Death or permanent disability can result from a heart attack. The risk of death or permanent damage can be reduced with timely treatment. Some newer treatments need to be given soon after the onset of a heart attack in order to be effective. It is important to know the symptoms of a heart attack and act right away.

What are the risk factors for heart disease?

Some conditions as well as some lifestyle factors can put people at a higher risk for developing heart disease. In principle, all persons can take steps to lower their risk of heart disease and heart attack by addressing these risk factors. Control of risk factors is especially needed by people who already have heart disease.

- **Blood Cholesterol Levels** - Cholesterol is a waxy substance produced by the liver or consumed in certain foods. It is needed by the body, and the liver makes enough for the body's needs. When there is too much cholesterol in the body—because of diet and the rate at which the cholesterol is processed—it is deposited in arteries, including those of the heart. This can lead to narrowing of the arteries, heart disease, and other complications.

Some cholesterol is often termed "good," and some often termed "bad." A higher level of high-density lipoprotein cholesterol, or HDL, is considered "good," and gives some protection against heart disease. Higher levels of low-density lipoprotein, or LDL, are considered "bad" and can lead to heart disease. A lipoprotein profile can be done to measure several different forms of cholesterol, as well as triglycerides (another kind of fat) in the blood.

- **High Blood Pressure** - High blood pressure is another major risk factor for heart disease. It is a condition where the pressure of the blood in the arteries is too high. There are often no symptoms to signal high blood pressure. Lowering blood pressure by changes in lifestyle or by medication can lower the risk of heart disease and heart attack.

- **Diabetes Mellitus** - Diabetes also increases a person's risk for heart disease. With diabetes, the body either doesn't make enough insulin, can't use its own insulin as well as it should, or both. This causes sugars to build up in the blood. About three-quarters of people with diabetes die of some form of heart or blood vessel disease. For people with diabetes, it is important to work with a healthcare provider to help in managing it and controlling other risk factors.
- **Tobacco Use** - Tobacco use increases the risk of heart disease and heart attack. Cigarette smoking promotes atherosclerosis and increases the levels of blood clotting factors, such as fibrinogen. Also, nicotine raises blood pressure, and carbon monoxide reduces the amount of oxygen that blood can carry. Exposure to other people's smoke can increase the risk of heart disease even for nonsmokers.
- **Diet** - Several aspects of peoples' dietary patterns have been linked to heart disease and related conditions. These include diets high in saturated fats and cholesterol, which raise blood cholesterol levels and promote atherosclerosis. High salt or sodium in the diet causes raised blood pressure levels.
- **Physical Inactivity** - Physical inactivity is related to the development of heart disease. It also can impact other risk factors, including obesity, high blood pressure, high triglycerides, a low level of HDL (good) cholesterol, and diabetes. Regular physical activity can improve risk factor levels.
- **Obesity** - Obesity is excess body fat. It is linked to higher LDL (bad) cholesterol and triglyceride levels and to lower HDL (good) cholesterol, high blood pressure, and diabetes.
- **Alcohol** - Excessive alcohol use leads to an increase in blood pressure, and increases the risk for heart disease. It also increases blood levels of triglycerides which contributes to atherosclerosis.
- **Heredity** - Heart disease can run in the family. Genetic factors likely play some role in high blood pressure, heart disease, and other vascular conditions. However, it is also likely that people with a

family history of heart disease share common environments and risk factors that increase their risk.

What can you do to reduce your risk?

Persons can take steps to lower their risk of developing heart disease by preventing or treating and controlling high blood pressure, preventing or treating and controlling high blood cholesterol, by not using tobacco, by preventing or controlling diabetes, and by maintaining adequate physical activity, weight, and nutrition. Persons being treated for conditions or risk factors should follow the guidance of their health care providers.

Additional Information

- American Heart Association - <http://www.americanheart.org/>

*Source: CDC
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