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About Coronary Artery Disease (CAD)

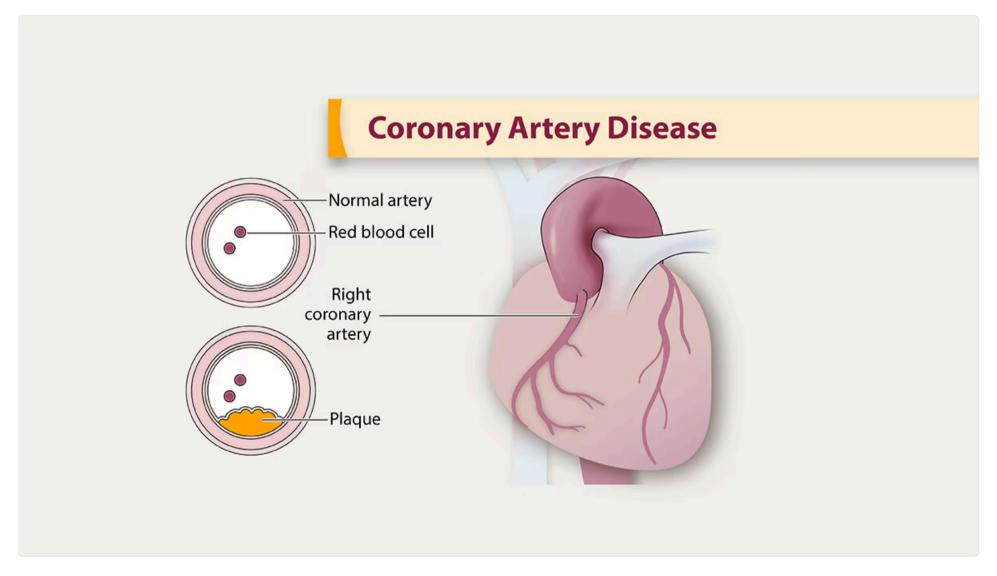
KEY POINTS

- Coronary artery disease (CAD) is the most common type of heart disease in the United States.
- CAD is caused by plaque buildup in the walls of the arteries that supply blood to the heart.

What it is

Coronary artery disease (CAD) is the most common type of heart disease in the United States. It is sometimes called coronary heart disease or ischemic heart disease.

For some people, the first sign of CAD is a heart attack. You and your health care team may be able to help reduce your risk for CAD.



Coronary artery disease is caused by plaque buildup in the arteries that block blood supply to the heart.

Symptoms

Angina, or chest pain and discomfort, is the most common symptom of CAD. Angina can happen when too much plaque builds up inside arteries, causing them to narrow. Narrowed arteries can cause chest pain because they can block blood flow to your heart muscle and the rest of your body.

For many people, the first clue that they have CAD is a heart attack. Symptoms of heart attack include

- Chest pain or discomfort (angina)
- Weakness, light-headedness, nausea (feeling sick to your stomach), or a cold sweat
- Pain or discomfort in the arms or shoulder

Shortness of breath

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 it should.

Risk factors

Overweight, physical inactivity, unhealthy eating, and smoking tobacco are risk factors for CAD. A family history of heart disease also increases your risk for CAD, especially a family history of having heart disease at an early age (50 or younger).

To find out your risk for CAD, your health care team may measure your blood pressure, blood cholesterol, and blood sugar levels.

Learn more about heart disease risk factors.

Causes

CAD is caused by plaque buildup in the walls of the arteries that supply blood to the heart (called coronary arteries) and other parts of the body.

Plaque is made up of deposits of <u>cholesterol</u> and other substances in the artery. Plaque buildup causes the inside of the arteries to narrow over time, which can partially or totally block the blood flow. This process is called atherosclerosis.

Diagnosis

If you're at high risk for heart disease or already have symptoms, your doctor can use several tests to diagnose CAD.

ECG or EKG (electrocardiogram)	 Measures the electrical activity, rate, and regularity of your heartbeat.
Echocardiogram	Uses ultrasound (special sound wave) to create a picture of the heart.
Exercise stress test	 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.
Chest X-ray	Uses x-rays to create a picture of the heart, lungs, and other organs in the chest.
Cardiac catheterization	 Checks the inside of your arteries for blockage by inserting a thin, flexible tube through an artery in the groin, arm, or neck to reach the heart. Health care professionals can measure blood pressure within the heart and the strength of blood flow through the heart's chambers as well as collect blood samples from the heart or inject dye into the arteries of the heart (coronary arteries).
Coronary angiogram	 Monitors blockage and flow of blood through the coronary arteries. Uses X-rays to detect dye injected via cardiac catheterization.
Coronary artery calcium scan	 A computed tomography (CT) scan that looks in the coronary arteries for calcium buildup and plaque.

Treatment and recovery

What is cardiac rehabilitation and recovery?

<u>Cardiac rehabilitation</u> is an important program for anyone recovering from a heart attack, heart failure, or other heart problem that required surgery or medical care. In these people, cardiac rehab can help improve quality of life and can help prevent another cardiac event. Cardiac rehabilitation is a supervised program that includes

- Physical activity
- Education about healthy living, including healthy eating, taking medicine as prescribed, and ways to help you quit smoking
- Counseling to find ways to relieve stress and improve mental health

A team of people may help you through cardiac rehabilitation, including your health care team, exercise and nutrition specialists, physical therapists, and counselors or mental health professionals.

How can I be healthier if I have coronary artery disease?

If you have CAD, your health care team may suggest the following steps to help lower your risk for heart attack or worsening heart disease:

- Lifestyle changes, such as eating a healthier (lower sodium, lower fat) diet, increasing physical activity, reaching a healthy weight, and quitting smoking
- Medicines to treat risk factors for CAD, such as high cholesterol, high blood pressure, or an irregular heartbeat
- Surgical procedures to help restore blood flow to the heart

SOURCES

CONTENT SOURCE:

National Center for Chronic Disease Prevention and Health Promotion; About the Division for Heart Disease and Stroke Prevention