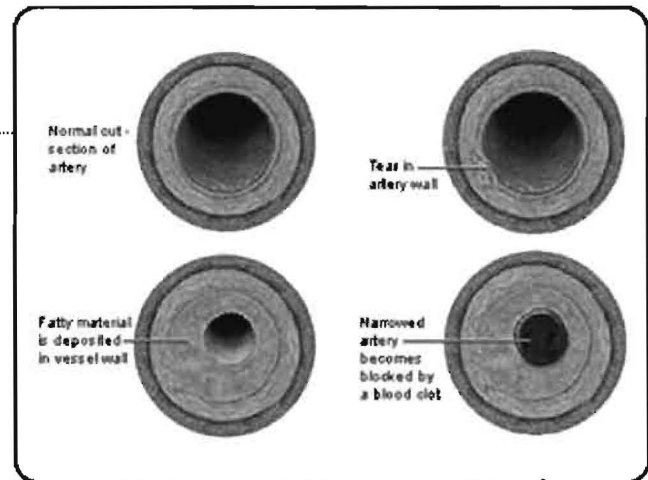




Coronary Artery Disease (CAD)

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 (<http://www.cdc.gov/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 |
|--------------------------------|--|
| ECD or EKG (electrocardiogram) | Measures the electrical activity, rate, and regularity of your heartbeat. |
| Echocardiogram | Uses ultrasound 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 | Creates a picture of the heart, lungs, and other organs in the chest. |
| Cardiac catheterization | 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. |
| Coronary angiogram | |

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.



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