

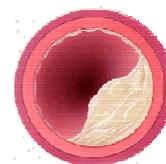
## Coronary Artery Disease

### What is coronary artery disease?



Coronary artery disease (CAD) is a type of heart disease. It is caused by gradual blockage of the coronary arteries. Your heart gets oxygen and nutrients from the blood that flows through these arteries.

In coronary artery disease, atherosclerosis causes thick patches of fatty tissue to form on the inside of the walls of the coronary arteries. These patches are called plaque. As the plaque thickens, the artery narrows and blood flow decreases. This causes the heart to get less oxygen. The plaque, or a clot of blood that forms on the plaque, may completely block an artery. This narrowing or blockage of the arteries increases your risk for heart attack and sudden death.



### How does it occur?

Several factors can put you at risk for developing coronary artery disease. Your risk of getting fatty plaques in your arteries is increased by:

- an inherited tendency in your family
- cigarette smoking
- high blood pressure
- diabetes
- obesity
- high levels of blood fat (for example, cholesterol).



There may be other factors we do not yet understand.

### What are the symptoms?

Coronary artery disease may have no symptoms. When there are symptoms, the most common one is chest pain, called angina. This pain usually feels like a heavy pressure in the middle of the chest. You may feel it in your abdomen, so you may think it is stomach upset. You may also feel the pressure in your neck, shoulders, arms, and even your jaw.

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When you have angina, you may also often have:

- shortness of breath
- light-headedness
- cold sweats
- nausea.



Angina tends to occur with exertion, after a heavy meal, or with emotional stress. However, angina may also occur when you are resting. The pain occurs more easily and frequently in cold weather.

### How is it diagnosed?



Your health care provider will ask about your symptoms and then examine you. He or she will ask about your symptoms and your personal and family medical history.

Blood samples will be tested in the lab to check the levels and types of fats (lipids) in your blood. Your provider will order an electrocardiogram (ECG or EKG).



You may do an exercise treadmill test. For this test you have an ECG while you exercise on a treadmill. It lets your provider see the electrical response of your heart and your body during exercise. Your provider may want to know how your heart works during the exercise test. This may be done by injecting radioactive dyes (isotopes) into your bloodstream and then using x-ray cameras to view blood flow during the test.



Echocardiography (ultrasound) may also be done during the exercise test to look at the motion of the heart during exercise.

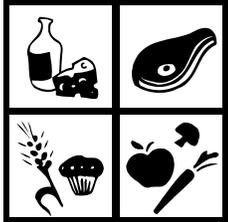
Heart catheterization and angiography are often necessary. Angiography shows blood flow through the coronary arteries. Seeing the blood flow, including the number, location, and size of any blockages, allows a heart specialist (cardiologist) or cardiovascular surgeon to recommend the best treatment for you.

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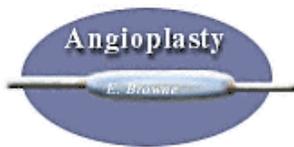
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## How is it treated?

The goal of treatment is for you to resume a full and active lifestyle. Your treatment depends on many factors, such as your age, heart muscle function, and other health problems.



At first, treatment may include changes to your diet and a monitored exercise program. Your health care provider may prescribe medication. If this treatment is not effective over a brief time, or if your coronary arteries are severely blocked, the blockages may need to be opened up or bypassed.



Balloon angioplasty is a method of opening up, or dilating, a partially blocked artery. The cardiologist uses a thin tube (catheter) to do this. The procedure involves some risk, but the risk is less than that of coronary artery bypass surgery.

If you have very severe or multiple blockages, your health care provider may recommend coronary artery bypass surgery. Arteries from the chest or veins from the legs or arms are used to create detours around areas of blockage in the heart artery.



## How long will the effects last?



Just as treatment is different for each person, so is the course of the disease. Many people respond well to balloon angioplasty or bypass surgery and return to very active lives, sometimes more active than before their diagnosis. People who already have advanced disease with complications when they are diagnosed and those who are unable to adapt to a healthier lifestyle are least likely to do well over the long term.

## How can I take care of myself?

Follow your provider's advice as to diet, activity, exercise, medication, and follow-visits.

Do not smoke.



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Make sure your cholesterol level is normal, even if this requires medication.

## **What can I do to help prevent coronary artery disease?**

Review your personal and family medical history and your lifestyle habits with your health care provider. This will help you assess your risk for coronary artery disease. You may then be able to figure out the best ways to decrease your risk.

Each day for the rest of your life, follow your provider's advice for any changes in your diet and activity. Eating a healthy diet, staying fit with the right kind of exercise for you, and not smoking are the best ways to try to avoid CAD.

If you have a strong family history of CAD, a healthy lifestyle will likely delay the onset of the disease and perhaps even avoid it. However, you must have regular checkups to keep a close watch on the health of your heart.

**NOTE: If you ever have angina like chest pain, get medical attention right away.**

Developed by McKesson Clinical Reference Systems.

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