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Patient education: Coronary heart disease (The Basics)

[Written by the doctors and editors at UpToDate](#)

What is coronary heart disease? — Coronary heart disease is a condition that puts you at risk for heart attack and other forms of heart disease. In people who have coronary heart disease, the arteries that supply blood to the heart get clogged with fatty deposits ([figure 1](#)). Other names for this disease are "coronary artery disease" or just "heart disease."

What are the symptoms of coronary heart disease? — Many people with coronary heart disease have no symptoms. For those who do, the most common symptoms usually happen with exercise. They can include:

- Pain, pressure, or discomfort in the center of the chest
- Pain, tingling, or discomfort in other parts of the upper body – This might include the arms, back, neck, jaw, or stomach.
- Feeling short of breath

What are the symptoms of a heart attack? — The first symptom of coronary heart disease can be a heart attack ([figure 2](#)). That's why it is so important to know how to spot a heart attack.

The symptoms of a heart attack can include:

- Pain, pressure, or discomfort in the center of the chest
- Pain, tingling, or discomfort in other parts of the upper body, including the arms, back, neck, jaw, or stomach
- Shortness of breath
- Nausea, vomiting, burping, or heartburn
- Sweating or having cold, clammy skin
- A racing or uneven heartbeat
- Feeling dizzy or lightheaded

If these symptoms last more than 10 minutes or they keep coming and going, **call for an ambulance (in the US and Canada, dial 9-1-1)** right away. Do not try to get to the hospital on your own.

As mentioned above, some people with coronary heart disease have chest pain even when they are not having a heart attack. This is most likely to happen when they are walking, going up stairs, or moving around. But if you have chest pain that is new or different than pain you have had before, you should see a doctor right away.

Is there a test for coronary heart disease? — Yes. If your doctor or nurse thinks you might have coronary heart disease, he or she might order blood tests and one or more of these tests:

- **An electrocardiogram ("ECG" or "EKG")** – This test measures the electrical activity in your heart.
- **A stress test** – During a stress test, which is also called an exercise test, you might be asked to run or walk on a treadmill while you also have an ECG. Physical activity increases the heart's need for blood. This test

helps doctors see if the heart is getting enough blood. If you cannot walk or run, your doctor might do this test by giving you a medicine to make your heart pump faster.

- **An echocardiogram** – This test uses sound waves to create an image of your heart as it beats.
- **Cardiac catheterization (also called "cardiac cath")** – During this test, the doctor puts a thin tube into a blood vessel in your leg or arm. Then he or she moves the tube up to your heart. Next, the doctor puts a dye that shows up on X-ray into the tube. This part of the test is called "coronary angiography." It can show whether any of the arteries in your heart are clogged.

How is coronary heart disease treated? — The main treatments for coronary heart disease are:

- **Lifestyle changes** – Here are some things you can do to reduce your risk of heart attack and death:
 - Quit smoking, if you smoke.
 - Eat lots of fruits, vegetables, and foods with a lot of fiber. Avoid foods that have a lot of sugar.
 - Walk or do some form of physically activity on most days of the week.
 - Lose weight, if you are overweight.
- **Medicines** – The medicines to treat heart disease are very important. Some medicines lower your risk of heart attacks and can help you live longer. But you must take them every day, as directed. Medicines your doctor might prescribe include:
 - Medicines called statins, which lower cholesterol
 - Medicines to lower blood pressure
 - [Aspirin](#) or other medicines that help prevent blood clots
 - Medicines to treat diabetes

People who have chest pain caused by coronary heart disease (called "angina") can also get medicines to relieve their pain. These medicines might include "nitrates," "beta blockers," and others.

Some people with coronary heart disease can also have:

- **A stent procedure** – During this procedure, the doctor puts a thin plastic tube into the blocked artery, and uses a tiny balloon to open the blockage. Then the doctor leaves a tiny mesh tube called a "stent" inside the artery to hold it open.
- **Bypass surgery** (also known as "coronary artery bypass grafting" or CABG) – During bypass surgery, the doctor removes a piece of blood vessel from another part of the body. Then he or she reattaches the blood vessel above and below the area that is clogged. This re-routes blood around the clog and allows it to get to the part of the heart that was not getting blood ([figure 3](#)).

If your doctor recommends stenting or bypass surgery, ask these questions:

- What are the benefits of this procedure for me? Will the procedure help me live longer? Will it reduce my chance of having a heart attack? Will I feel better if I have this procedure?
- What are the risks of the procedure?
- What happens if I don't have this procedure?

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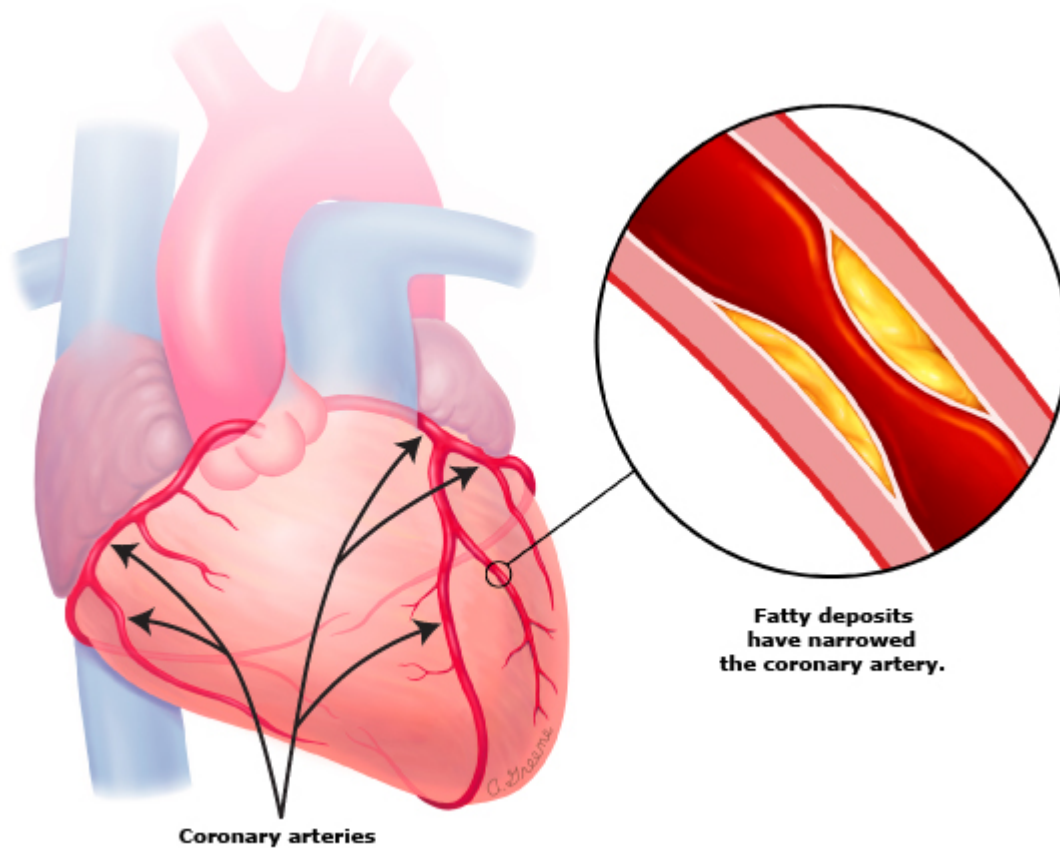
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Topic 15331 Version 18.0

GRAPHICS

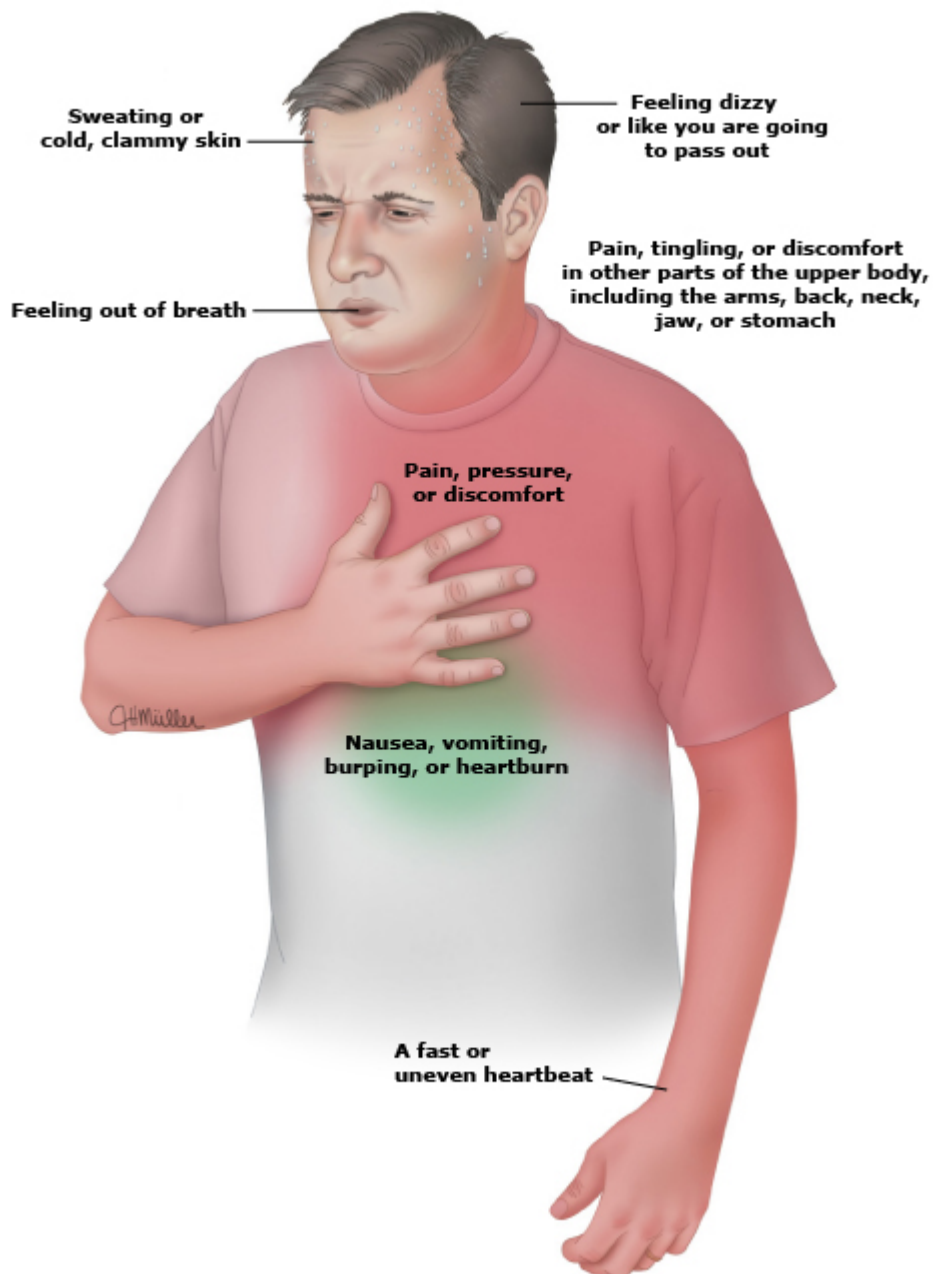
Coronary heart disease



In people with coronary heart disease, the coronary arteries get clogged with fatty deposits called plaques.

Graphic 61785 Version 5.0

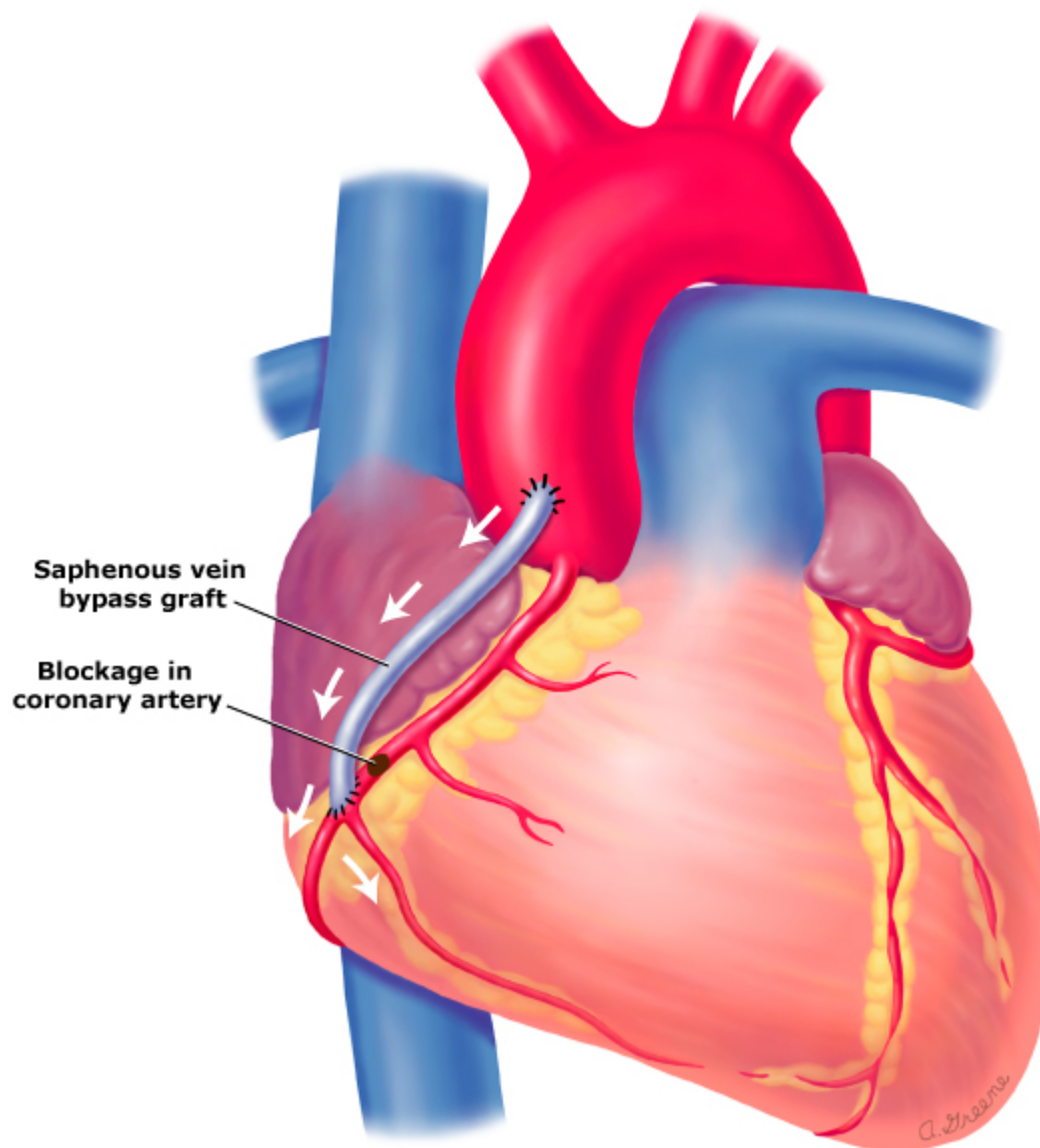
Heart attack symptoms



This picture shows the main symptoms of a heart attack. People who are having a heart attack often have only some of these symptoms. The pain, pressure, and discomfort caused by a heart attack mostly affect the left side of the body (shown in darker red) but can also affect the right. If you think you are having a heart attack, call 9-1-1 for an ambulance. Do not try to get yourself to the hospital.

Graphic 52579 Version 1.0

Coronary artery bypass graft surgery



During coronary artery bypass surgery, the surgeon removes a piece of blood vessel from the leg, chest, arm, or belly. Then the surgeon uses that piece of blood vessel (called a "graft") to reroute blood around the blocked artery. The surgery is called "bypass surgery" because it bypasses the blockage. Some people have more than 1 blocked artery bypassed. In this picture, the graft came from a vein in the leg called the "saphenous vein." But grafts can come from other places, too.

Graphic 73589 Version 5.0