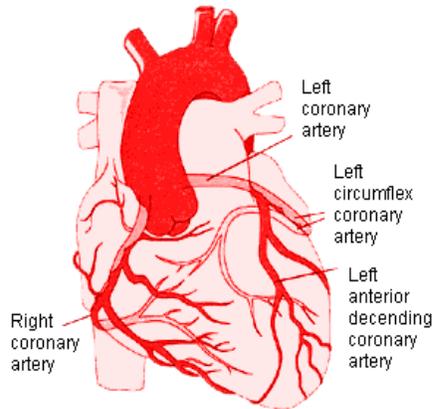




Here is some information on Angina or Angina Pectoris.



Angina occurs when the heart muscle isn't getting enough oxygen from the blood to meet its needs. It is the pain or discomfort that is considered Angina. Like a heart attack, angina pain can involve the chest, neck, jaw, shoulders, arms and back, but rest quickly relieves pain, or sometimes it is relieved by medications such as nitroglycerine, and no permanent heart damage occurs. Some people, in addition, become aware that the blood supply to their heart is reduced because they begin to have shortness of breath or when doing activities they used to find easy they experience unusual tiredness.

At first, angina pain may only happen during times when the heart has to work harder. During exercise, for example, when out in cold weather or extreme heat, following a large meal or during periods of increased excitement or stress. As the blood flow through the 'coronary arteries' (the arteries that supply the needs of the heart - see diagram at top of page) continues to decrease, however, angina may begin to occur at rest as well.

The pain of Angina usually occurs as a result of gradual narrowing and hardening of the coronary arteries

(atherosclerosis), but may also occur as a result of spasms in the arteries, a blood clot, rapid heart rate or irregularities in the heart beat (arrhythmias).

## Prinzmetal's Angina

The signs of Prinzmetal's angina, also known as variant angina, may be quite different from chronic angina.

For example, people often describe angina pain or discomfort more often in clusters of two or three attacks in the night or early morning hours, or at the same time every day. Sometimes, patients may state they experience attacks while at complete rest, but at times may be able to perform physically strenuous activities without triggering attacks. Often, the exercise tolerance test is negative.

The cause of variant angina seems to be more related to a spasm, or sudden tightening, of the coronary artery. The spasm may occur in normal coronary arteries, or in arteries with plaque buildup (atherosclerosis).

Attacks are usually short, and are often treated with short-acting nitroglycerin

What are the signs and symptoms of angina? Angina is a feeling of pressure, tightness, or pain. This discomfort usually happens in the center of your chest. Angina may also be felt in your neck, jaw, shoulder, back, or as pain or numbness in either arm. You may have discomfort that feels like indigestion (heartburn). You may have shortness of breath, sweating, or feel fear or anxiety before or during an angina attack. Angina may feel different to each person who has it. There are different types of angina:

- **Stable angina:** A person with stable angina usually knows what activities will trigger their chest pain. The pain often starts slowly and may last a few seconds to 30 minutes. Stable angina is often triggered by exercise or physical work. It may be triggered by extreme temperatures, heavy meals, or getting upset. Ten minutes of rest or medicine (such as nitroglycerin, or “nitro” usually makes stable angina go away.
- **Unstable angina:** Unstable angina is chest discomfort that is not expected and may occur at rest. Unstable angina may be more painful, and last longer than the pain of stable angina. Some people get unstable angina without ever having stable angina. Stable angina that changes to unstable angina may mean that your heart is getting worse. Unstable angina is serious. If you have an angina attack that is worse or different than usual, you need to be seen in an emergency department right away
- **Prinzmetal's or variant angina:** This type of angina is caused by a spasm of a coronary artery
- **Microvascular angina:** This is angina that occurs without narrowing, blockage, or spasms of the coronary arteries. A problem with tiny blood vessels that supply the heart is thought to cause this kind of angina.
- **Atypical angina:** Women and people who have diabetes may not have typical chest pain when they have a heart problem. The discomfort may be in an unusual place, or there may not be pain at all. With atypical angina, a person may have symptoms like shortness of breath or nausea as their only sign of a problem.