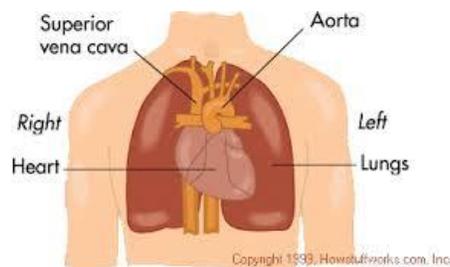


ABOUT THE Heart

The heart is a strong muscle about the size of a fist. It lies in the center of the chest and is tilted slightly to the left. The heart must pump blood, oxygen, and nutrients to all parts of the body.

A thin band of muscle tissue (the septum) divides the heart into 2 sides – the right side and the left side. Each has a different job in the heart's pumping action. The right side of the heart only pumps blood to the lungs while the left side must pump blood to all other parts of the body. For this reason, the left heart muscle is thicker than the right. The heart muscle gets its oxygen and nutrients from the blood that flows through the coronary arteries. The 3 major branches of these arteries circle the heart and take blood into the heart muscle (myocardium).

The right coronary artery brings blood to the right side of the back of the heart. The left coronary artery has two branches; the circumflex and the left anterior descending. These carry blood to the septum and left side of the heart.



WHAT IS A HEART ATTACK

When blood flow to the heart muscle is slowed or stopped for 15 to 30 minutes or longer, there is damage to the heart muscle. That's a heart attack. A Heart Attack can happen if any of the coronary artery branches develop:

♥ Fatty build = up (atherosclerosis)

Atherosclerosis refers to a buildup of fatty deposits in the arteries. It is one type of atherosclerosis, the medical term for "hardening of the arteries".

♥ Or a blood clot (thrombus)

♥ Or spasm

Whichever happens, the result is the same, not enough blood and oxygen reaching the heart. Without enough blood and oxygen, the heart muscle begins to die. It is important to go to hospital Emergency, early detection can help decrease the amount of damage to the heart.

ANGINA

Angina is a sign that something is wrong. Coronary heart disease is the buildup of fat in the arteries that feed the heart. While this build-up is going on, you will not feel it. Then one day, you feel the discomfort that we all call angina pectoris. If you don't do something about your angina, you can end up having a heart attack.

What to do about Angina?

Nitroglycerin (NTG) AND rest are the quickest way to relieve angina. Since angina is a warning that the heart needs more blood and oxygen act fast when you first feel the symptoms.

If you have angina, **stop what you are doing and if rest does not relieve your discomfort completely within one minute (60 seconds)**

 Take nitroglycerin (NTG) one tablet or spray every 5 minutes (or until you have taken 3)

 If you have had to take the third NTG then call "911" and **go to the nearest hospital emergency room!**

If NTG brings relief, wait until another time to finish what you were doing. If the same activity causes angina again, take a nitroglycerin ahead of time to prevent discomfort.

Let your doctor know **how often** you have angina and which activities bring it on. Even if NTG gives complete relief, you should let your doctor know of your angina:

 Occurs with little or no exertion

 Requires more NTG for relief

 Lasts longer each time

WORD OF CAUTION:

Do not use VIAGRA unless your doctor has prescribed it. VIAGRA (sildenafil citrate) can cause dangerous heart and blood pressure changes if taken within 24 hours of using short acting or long acting forms of nitroglycerin. If anyone has used VIAGRA within the past 24 hours and has chest or discomfort or pain, most doctors advise them not to use any form of NTG, but to go to the nearest emergency room.

How the Damaged Heart Heals

The heart begins to heal during the first several weeks after a heart attack. It heals in two main ways:



by forming scar tissue



by expanding the smaller blood vessels

In time, scar tissue replaces the damaged heart cells, making the injured part of the heart muscle stronger. Within 2 to 3 hours, small arteries near the damaged area begin to expand. In 2 to 3 weeks these arteries will be large enough to bring more blood to the surrounding tissues. These arteries are called “collateral blood vessels”. It may take these vessels several months to bring enough blood to the tissues around the heart damage.

Procedures for your Information

Cardiac Catheterization

A heart Catheterization is often needed to find out how much damage has occurred or if future heart damage is likely. During this procedure, a catheter is used to inject dye into the heart. Pictures can then be made of the coronary arteries and the heart’s pumping chambers. If a narrowed coronary artery seems likely to cause a large heart attack in the future, bypass surgery or angioplasty may be needed.

Coronary Angioplasty

A catheter with a tiny balloon on the end is placed in the narrowed coronary artery. The balloon is inflated one or more times to try to flatten layers against the artery wall. When successful, this permits a bigger opening inside the artery, and blood flow improves.

Stents

A stent is a small, stainless steel wire mesh tube placed in a clogged artery to help prop it open. The stent’s fine wires expand the artery opening and allow for better blood flow.

Within 2-4 weeks your tissue lining will grow over the stent, holding it securely in place. Because blood clots can form easily on a stent, you will be given a medication (like Plavix or Clopidogrel) to take for a period of time to keep blood clots from forming in the artery. Your doctor may also tell you to take an aspirin each day to help prevent blood clots.

Take all medications just as your doctor prescribes, don’t miss a dose or take an extra dose. Call your doctor if you have unusual bleeding or bruising or if you have any questions.

Bypass Surgery

A piece of vein from leg or an artery from the chest is used to make a bypass. The bypass lets blood flow around the blockage to reach the heart muscle.



Note: Angioplasty and/or bypass surgery may not be necessary after a heart attack.