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| If you are at risk of Heart Disease or Heart Attack, following factors above can help you to reduce its impact to a greater extend. |

What Is Heart Attack?

A heart attack happens when the flow of oxygen-rich blood to a section of heart muscle suddenly becomes blocked and the heart can't get oxygen. If blood flow isn't restored quickly, the section of heart muscle begins to die.

Heart attacks are a leading killer of both men and women in the South Africa. The good news is that excellent treatments are available for heart attacks. These treatments can save lives and prevent disabilities.

Heart attack treatment works best when it's given right after symptoms occur. If you think you or someone else is having a heart attack (even if you're not fully sure), call 9–1–1 right away.

Overview

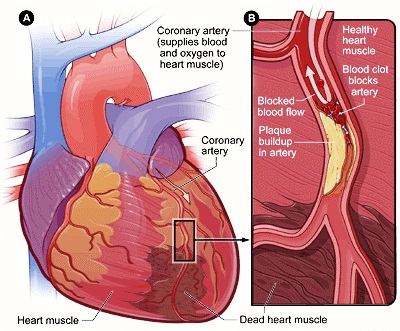
Heart attacks most often occur as a result of coronary heart disease (CHD), also called coronary artery disease. CHD is a condition in which a waxy substance called plaque (plak) builds up inside the coronary arteries. These arteries supply oxygen-rich blood to your heart.

When plaque builds up in the arteries, the condition is called atherosclerosis (ath-er-o-skler-O-sis). The buildup of plaque occurs over many years.

Eventually, an area of plaque can rupture (break open) inside of an artery. This causes a blood clot to form on the plaque's surface. If the clot becomes large enough, it can mostly or completely block blood flow through a coronary artery.

If the blockage isn't treated quickly, the portion of heart muscle fed by the artery begins to die. Healthy heart tissue is replaced with scar tissue. This heart damage may not be obvious, or it may cause severe or long-lasting problems.

Heart with Muscle Damage and a Blocked Artery

*Figure A shows a heart with dead heart muscle caused by a heart attack. Figure B is a cross-section of a coronary artery with plaque buildup and a blood clot.*

A less common cause of heart attack is a severe spasm (tightening) of a coronary artery. The spasm cuts off blood flow through the artery. Spasms can occur in coronary arteries that aren't affected by atherosclerosis.

Heart attacks can be associated with or lead to severe health problems, such as heart failure and life-threatening arrhythmias (ah-RITH-me-ahs).

Heart failure is a condition in which the heart can't pump enough blood to meet the body's needs. Arrhythmias are irregular heartbeats. Ventricular fibrillation is a life-threatening arrhythmia that can cause death if not treated right away.

Don't Wait--Get Help Quickly

Acting fast at the first sign of heart attack symptoms can save your life and limit damage to your heart. Treatment works best when it's given right after symptoms occur.

Many people aren't sure what's wrong when they are having symptoms of a heart attack. Some of the most common warning symptoms of a heart attack for both men and women are:

* **Chest pain or discomfort.** Most heart attacks involve discomfort in the center or left side of the chest. The discomfort usually lasts more than a few minutes or goes away and comes back. It can feel like pressure, squeezing, fullness, or pain. It also can feel like heartburn or indigestion.
* **Upper body discomfort.** You may feel pain or discomfort in one or both arms, the back, shoulders, neck, jaw, or upper part of the stomach (above the belly button).
* **Shortness of breath.** This may be your only symptom, or it may occur before or along with chest pain or discomfort. It can occur when you are resting or doing a little bit of physical activity.

Reducing your risk of a heart attack:

There are five main steps you can take to reduce your risk of having a heart attack (or having another heart attack):

* Smokers should quit smoking
* Lose weight if you are overweight or obese
* Take regular exercise – adults should do at least 150 minutes (2 hours and 30 minutes) of moderate-intensity aerobic activity each week, unless advised otherwise by the doctor in charge of your care
* Eat a low-fat, high-fiber diet, including whole grains and plenty of fresh fruit and vegetables (at least five portions a day)
* Moderate your alcohol consumption.

Quick Action Can Save Your Life: Call 9–1–1

If you think you or someone else may be having heart attack symptoms or a heart attack, don't ignore it or feel embarrassed to call for help. Call 9–1–1 for emergency medical care. Acting fast can save your life.

Do not drive to the hospital or let someone else drive you. Call an ambulance so that medical personnel can begin life-saving treatment on the way to the emergency room. Take a nitroglycerin pill if your doctor has agreed this type of treatment.

Heart Attack Symptoms

Symptoms of a heart attack include:

Discomfort, pressure, heaviness, or pain in the chest, arm, or below the breastbone

Discomfort radiating to the back, jaw, throat, or arm.

Other symptoms include

Fullness, indigestion, or choking feeling (may feel like heartburn)

Sweating, nausea, vomiting, or dizziness

Extreme weakness, anxiety, or shortness of breath

Rapid or irregular heartbeats

During a heart attack, symptoms last 30 minutes or longer and are not relieved by rest or nitroglycerin under the tongue.

Some people have a heart attack without having any symptoms (a "silent" myocardial infarction). A silent MI can occur in anyone, but it is more common among people with diabetes.

How Is a Heart Attack Diagnosed?

To diagnose a heart attack, an emergency care team will ask you about your symptoms and begin to evaluate you. The diagnosis of the heart attack is based on your symptoms and test results. The goal of treatment is to treat you quickly and limit heart muscle damage.

Tests to Diagnose a Heart Attack

* **ECG.** The ECG (also known as EKG or electrocardiogram) can tell how much damage has occurred to your heart muscle and where it has occurred. In addition, your heart rate and rhythm can be monitored.
* **Blood tests.** Blood may be drawn to measure levels of cardiac enzymes that indicate heart muscle damage. These enzymes are normally found inside the cells of your heart and are needed for their function. When your heart muscle cells are injured, their contents -- including the enzymes -- are released into your bloodstream. By measuring the levels of these enzymes, the doctor can determine the size of the heart attack and approximately when the heart attack started. Troponin levels will also be measured. Troponins are proteins found inside of heart cells that are released when they are damaged by the lack of blood supply to the heart. Detecting troponin in the blood may indicate a heart attack.
* **Echocardiography.** Echocardiography is an imaging test that can be used during and after a heart attack to learn how the heart is pumping and what areas are not pumping normally. The "echo" can also tell if any structures of the heart (valves, septum, etc.) have been injured during the heart attack.
* **Cardiac catheterization.** Cardiac catheterization, also called cardiac cath, may be used during the first hours of a heart attack if medications are not relieving the ischemia or symptoms. The cardiac cath can be used to directly visualize the blocked artery and help your doctor determine which procedure is needed to treat the blockage.

How Are Future Heart Attacks Prevented?

The goal after your heart attack is to keep your heart healthy and reduce your risks of having another heart attack. Your best bet to ward off future attacks are to take your medications, change your lifestyle, and see you doctor for regular heart checkups.

Why Do I Need to Take Drugs After a Heart Attack?

Drugs are prescribed after a heart attack to:

* **Prevent future blood clots**
* Lessen the work of your heart and improve your heart's performance and recovery
* **Prevent plaques** by lowering cholesterol

Other drugs may be prescribed if needed. These include medications to treat irregular heartbeats, lower blood pressure, control angina, and treat heart failure.

It is important to know the names of your medications, what they are used for, and how often and at what times you need to take them. Your doctor or nurse should review your medications with you. Keep a list of your medications and bring them to each of your doctor visits. If you have questions about them, ask your doctor or pharmacist.

What Lifestyle Changes Are Needed After a Heart Attack?

There is no cure for coronary artery disease. In order to prevent the progression of heart disease and another heart attack, you must follow your doctor's advice and make necessary lifestyle changes – quitting smoking, lowering your blood cholesterol, controlling your diabetes and high blood pressure, following an exercise plan, maintaining an ideal body weight, and controlling stress.

When Will I See My Doctor Again After I Leave the Hospital?

Make a doctor's appointment for four to six weeks after you leave the hospital following a heart attack. Your doctor will want to check the progress of your recovery. Your doctor may ask you to undergo diagnostic tests such as an exercise stress test at regular intervals. These tests can help your doctor diagnose the presence or progression of blockages in your coronary arteries and plan treatment.

Call your doctor sooner if you have symptoms such as [chest pain](http://www.webmd.com/pain-management/guide/whats-causing-my-chest-pain) that becomes more frequent, increases in intensity, lasts longer, or spreads to other areas; shortness of breath, especially at rest; dizziness, or irregular heartbeats.

Citations

*WebMd.* (2015, April 11). Retrieved September 19, 2015, from Webmd: http://www.webmd.com/heart-disease/guide/heart-disease-heart-attacks?page=4

