

ATHEROSCLEROSIS

■ WHAT IS ATHEROSCLEROSIS?



Picture at left: Stages of plaque build-up inside an artery. The normal artery is on the left. Plaque continues to thicken along the walls of the artery. Eventually it reaches a point at which it ruptures.

substances called plaque
Cholesterol is the main

buildup can cause partial or complete blockage of blood flow through an artery. Atherosclerosis mainly affects medium-sized arteries, such as the coronary (heart), carotid (neck), cerebral (brain) and renal (kidney) arteries. It can also be found in the aorta, which is the largest artery in the body. The branches of the aorta leading to the arms and legs can become lined with plaque as well. Atherosclerosis tends to build up at points where the artery branches off.

Atherosclerosis is sometimes called “hardening of the arteries”. This condition occurs when fatty build up inside the artery walls. fatty substance in plaque. This fatty

■ HOW DOES ATHEROSCLEROSIS OCCUR?

Researchers believe atherosclerosis develops in a sequence of events:

- First, an injury damages the inner lining of an artery. The injury may be caused by high blood pressure in the artery, damage by a virus, or an allergic reaction. Irritants such as nicotine or drugs can also damage the lining. An inflammatory cycle begins which causes plaque to develop.
- Some plaques grow very slowly and the artery gradually becomes narrower. In time, this narrowing may block the artery enough to reduce the blood flow through it. When that happens, the part of the body beyond the narrow area begins to suffer from lack of oxygen.
- When the surface of a plaque ruptures, a clot forms at the rupture. The clot may get large enough to partially or completely block the flow of blood through the artery. No one knows what causes plaques to rupture. A heart attack, stroke, or kidney failure can result.

■ WHAT ARE THE SYMPTOMS?

Most people do not experience any symptoms of atherosclerosis until there is a serious lack of blood flow to a part of the body. When symptoms do occur, they may be constant or they may come and go. Symptoms include:

- Pain in the leg muscles when you exercise (intermittent claudication)
- Pain in the chest (angina or heart attack)
- A mini-stroke (transient ischemic attack or stroke)

Five factors that put you at higher risk for atherosclerosis include:

- Smoking
- High cholesterol
- High blood pressure
- Diabetes
- A history of atherosclerosis in close family members.

■ HOW IS ATHEROSCLEROSIS DIAGNOSED?

Your doctor will ask about your symptoms, take a health history and do an exam. You may have one or more of the following tests:

- Cholesterol testing (basic and advanced testing)
- EKG
- Stress testing
- Angiogram – a dye is injected into the arteries and x-ray pictures are taken
- Ultra Fast CT scan (measures the amount of calcification in the coronary arteries which is an indicator of atherosclerosis)
- Arterial ultrasound – uses sound waves to make a picture of your arteries

■ HOW IS ATHEROSCLEROSIS TREATED?

Depending on your symptoms, your doctor may prescribe medication to reduce blood clotting. Other medications can be used to relax the blood vessels, or lower your cholesterol. In some cases surgical procedures may be needed to relieve symptoms.

Your doctor will advise major lifestyle changes to try to stop or reverse the buildup of plaque in your arteries.

■ HOW CAN I TAKE CARE OF MYSELF?

- Take any medicine your doctor prescribes
- Follow your doctor's advice for lifestyle changes
- Check your blood pressure and cholesterol regularly
- Quit smoking
- If you are overweight, talk to your doctor about losing weight
- Exercise regularly
- Change to a low-fat, low-cholesterol, and high-fiber diet, rich in omega 3 fatty acids
- Find ways to reduce stress
- If you have diabetes, talk to your doctor about ways to keep your diabetes under control