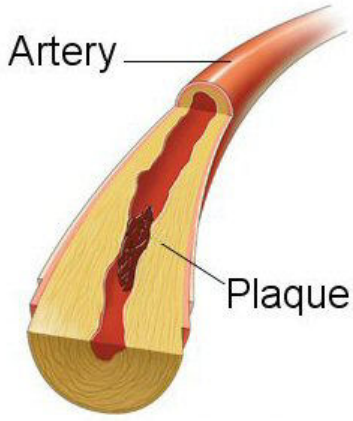
Atherosclerosis

Atherosclerosis is the name for a buildup of fatty substances (*plaque*) on the walls of the blood vessels that carry blood away from the heart (*arteries*). The term is similar to arteriosclerosis which means that arteries have become hard or stiff. This is also called "hardening of the arteries." It usually takes years for the arteries to become coated with plaque or hard and stiff.



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How atherosclerosis affects the body depends on which arteries are involved. If the arteries become stiff or coated with plaque, the flow of blood is too low to carry enough oxygen and nutrients to the affected organ. When some of the plaque splits open (*ruptures*), a clot may form and the artery may become blocked. If an artery to the heart is blocked, you may have a heart attack. A blocked artery to the brain may cause a stroke. Blocked arteries in the legs or arms may cause cramping, weakness, or pain.

RISK FACTORS

- Family history.
- Low level of HDL (good) cholesterol.
- Smoking.
- Lack of activity/exercise.
- Carrying extra weight in the belly (abdominal obesity).
- Diabetes.

SYMPTOMS

- For men, pain, pressure or tightness (*angina*) in the chest, neck, arm or jaw may be warnings of low blood flow to the heart. For women, heartburn, extreme fatigue, anxiety, or nausea may be warnings.
- Leg cramps or pain that occurs with physical exercise may mean that arteries to your legs are affected.
- Weakness on one side or area of the body or difficulty with speech, vision, balance, or sudden confusion may indicate narrow arteries to your brain.
- These problems may only last for a few minutes, but need to be checked out by your caregiver soon after they happen.

DIAGNOSIS

After examination and a review of your problems, your caregiver may order tests such as:

- An EKG, stress test, or coronary angiogram to find problems with arteries to the heart.
- An ultrasound, CT scan or MRI to examine arteries in the brain.
- A special angiogram or ultrasound to study blood flow to your legs or arms.

TREATMENT

- Early stages may be managed with medications and life-style changes to reduce risk factors.
- Angioplasty
  - A special balloon is placed in the narrow artery through a small tube inserted in the groin. The balloon is blown up to make the artery wider, then deflated and removed.
- Stent
  - Placed in a procedure similar to an angioplasty. The stent is a small metal mesh that expands after it is guided to the narrow place in the artery. It is permanent and the walls of the artery gradually grow over it.
- Open heart surgery
  - May be needed if flow through the arteries of the heart is poor. During surgery, blood vessels from another part of the body are taken to bypass the clogged arteries. If someone has had a "triple bypass," three of the arteries to the heart were replaced.

SEEK IMMEDIATE MEDICAL CARE IF YOU:

- Think you might be having a heart attack or a stroke. Delay may result in serious consequences.
- Are having a hard time breathing.
- Notice that your hands or feet are bluish or cold.
- Cannot move one side or area of your body.
- Cannot get words out or your speech is garble.
- Feel too weak or dizzy to walk by yourself.

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