

Considering... Arteries and Your Health

A Guide to Preventing and Understanding Peripheral Arterial Disease

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Report From the
Committee on Cardiovascular and Metabolic Diseases™

Think of your arteries as highways: tubes that carry blood from your heart (coronary arteries) to your toes (peripheral arteries). As you age, certain roadblocks can slow blood flow to your brain, heart, and legs. Reduced blood flow to your legs can lead to *peripheral arterial disease (PAD)* and possibly a heart attack or stroke. This handout will look at how and why artery disease forms and what you and your doctor can do to reduce its impact on your health.

Factors that put your arteries at risk

Some risk factors you can't do anything about—for instance, if your family has a history of PAD, stroke, or heart disease, there is a good chance that you may also be at risk. Then there are other risk factors that you can do something about to keep your arteries healthy.

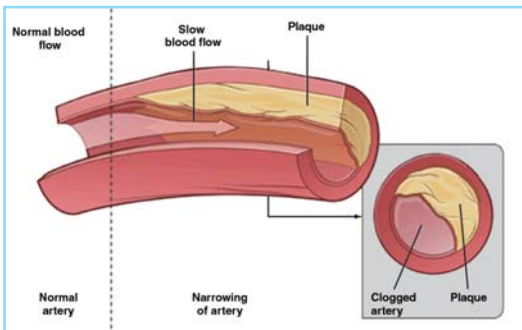
The most common risk factors that can cause damage to your arteries include:

- ❖ **Smoking:** it's the leading risk factor
- ❖ **High blood pressure (BP; hypertension):** readings more than 120/80 mm Hg
- ❖ **Low levels of HDL-C ("good" cholesterol):** readings less than 50 mg/dL in women or 40 mg/dL in men
- ❖ **Family history:** particularly if your father or mother had heart disease, PAD, or a heart attack at a young age
- ❖ **Type 2 diabetes:** fasting plasma glucose levels higher than 100 mg/dL

How do I know when something goes wrong? Whether you have bad habits (smoking, unhealthy diet) or a family history for artery disease, with time, blood flow through your arteries may slow down.

As you age, a toothpaste-like substance called *plaque*—which is made up of cholesterol and other materials—builds up in your arteries. Add on other things that stick to plaque and, soon, arteries

narrow and harden. This slows or stops blood flow, which leads to a condition called *atherosclerosis*, a signal for artery disease.



What are the signs? Although most people with artery disease or PAD don't have any symptoms, these clues may signal something has affected the blood flow in your legs:

- ❖ Cramping or pain in the calves, legs, or buttocks while walking or exercising. This is known as *intermittent claudication* and is usually relieved with rest.
- ❖ Numbness or weakness, or a pale or blue color in the legs and feet.
- ❖ Burning or aching in your feet and toes, or open sores or ulcers on your feet or legs that take a long time to heal, may signal a severe case of PAD.

Testing the health of your arteries

If you are diagnosed with PAD, your doctor will discuss with you ways to bring your arteries back to health. Your best bets are exercise and a healthy diet. Your doctor may also prescribe medication to improve your risk factor(s). These tests can give your doctor a sneak peek at what's going on inside your arteries:

BP

- ❖ **Normal:** less than 120/80 mm Hg
- ❖ **Prehypertension:** 120/80–139/89 mm Hg (less than 140/90 mm Hg without diabetes; less than 130/80 mm Hg with diabetes)
- ❖ **Stage 1 hypertension:** 140/90–159/99 mm Hg
- ❖ **Stage 2 hypertension:** more than 160/100 mm Hg

Cholesterol

(No artery disease)

- ❖ **Total cholesterol:** less than 200 mg/dL
- ❖ **LDL-C ("bad"):** less than 100 mg/dL
- ❖ **HDL-C ("good"):** more than 50 mg/dL in women, more than 40 mg/dL in men
- ❖ **Triglycerides:** less than 150 mg/dL

(If you've been diagnosed with PAD)

- ❖ **LDL-C:** less than 100 mg/dL; less than 70 mg/dL is optional
- ❖ **Non-HDL-C:** less than 130 mg/dL

Glucose (blood sugar)

- ❖ **Normal:** less than 100 mg/dL
- ❖ **Borderline diabetes:** more than 125 mg/dL

Ankle-brachial index (ABI)

This test compares the BP in your arms and legs to see how well your blood is flowing and identifies artery blockage.

Special artery images

These are imaging tests that look inside your arteries for blockages. The most common are ultrasound, a computed tomography (CAT) scan, a magnetic resonance angiogram, or an X-ray angiogram.

FACULTY ADVISOR: Leonard Keilson, MD, MPH, Associate Professor of Medicine, University of Vermont, has no relevant financial relationships to disclose.

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