

Peripheral Arterial Disease (PAD)

WHAT IS IT?

Peripheral arterial disease (PAD) occurs when a fatty material called plaque builds up on the inside walls of the arteries that carry blood from the heart to the head, internal organs, and limbs. PAD is also known as atherosclerotic peripheral arterial disease.

Also Known As: Arm Artery Disease, Circulation Problems, Leg Artery Disease

BASIC FACTS

- Peripheral arterial disease (PAD) occurs when a fatty material called plaque builds up on the inside walls of the arteries that carry blood to the limbs.
- PAD is a common, yet serious disease.
- PAD affects 8 to 12 million people in the United States. An estimated 5 percent of U.S. adults over age 50 have PAD. Among adults age 65 and older, 12 to 20 percent may have PAD.
- PAD can impair physical health and diminish a person's ability to walk.
- People with PAD have an increased risk for heart attack.
- Early diagnosis and treatment of PAD are important to prevent disability and save lives.
- PAD screening for individuals at high risk is very important.
- PAD can be treated with lifestyle changes, medicines, and/or surgery and special procedures.
- Treatment often includes making long-lasting lifestyle changes, including quitting smoking, lowering high blood pressure, lowering high cholesterol levels, and lowering blood glucose levels if you are diabetic.
- PAD treatment may stop the disease from progressing and reduce the risk of heart attack, heart disease, stroke, and kidney failure.
- Surgery may be necessary to supply more blood flow to the leg if a person has severe symptoms.

WHAT CAUSES PERIPHERAL ARTERIAL DISEASE?

The most common cause of peripheral arterial disease (PAD) is atherosclerosis. When atherosclerosis affects the arteries of the limbs, it is called PAD. The exact cause of atherosclerosis

is unknown in the majority of cases. In atherosclerosis, the plaque that builds up on artery walls is made up of fat, cholesterol, calcium, and other substances in the blood. Smoking, diabetes, a high blood cholesterol level, and high blood pressure increase the risk of atherosclerosis.

WHO IS AT RISK FOR PERIPHERAL ARTERIAL DISEASE?

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MAJOR RISK FACTORS

Major risk factors for developing PAD include:

- Smoking. Smoking is more closely related to developing PAD than any other risk factor. Smoking increases the risk of developing PAD three to five times. On average, smokers who develop PAD experience symptoms 10 years earlier than nonsmokers who develop PAD. Stopping smoking will slow the progress of PAD. Smoking even one or two cigarettes daily can interfere with the treatment for PAD. Smokers and diabetics have the greatest risk of complications from PAD, including gangrene in the leg from decreased blood flow.
- Chronic or serious illnesses, such as diabetes. One in three people over age 50 with diabetes is likely to have PAD. Anyone over age 50 with diabetes should be screened for PAD.
- Other diseases and conditions, such as:
 - Kidney disease
 - High blood pressure or a family history of it
 - A high cholesterol level or a family history of it
 - Heart disease or a family history of it
- A family history of stroke
- Age. Men who are older than age 50 and women who are older than age 55 are at higher risk for PAD.

WHAT ARE THE SIGNS AND SYMPTOMS OF PERIPHERAL ARTERIAL DISEASE?

At least half of the people who have peripheral arterial disease (PAD) don't have any signs or symptoms of the disease.

People who do have signs or symptoms may have pain when walking or climbing stairs, which may be relieved after resting. This pain is called intermittent claudication. Blood brings oxygen to the muscles, but during exercise, muscles need more blood flow. If there is a blockage in the blood vessels, muscles won't get enough blood. If a person has intermittent claudication and exercises while in pain, his or her muscles may be harmed. When resting, the muscles require less blood flow and the pain goes away. Claudication is more likely in people who also have atherosclerosis in other arteries, such as the heart and brain. About 10 percent of people with PAD have intermittent claudication.

Other signs and symptoms of PAD include:

- Pain, numbness, aching, and heaviness in the muscles

- Cramping in the legs, thighs, calves, and feet
- A weak or absent pulse in the legs or feet
- Sores or wounds on toes, feet, or legs that heal slowly, poorly, or not at all
- Color changes in skin, paleness, or blueness (called cyanosis)
- A decreased temperature in one leg compared to the other leg
- Poor nail growth and decreased hair growth on toes and legs
- Erectile dysfunction, especially among people with diabetes

HOW IS PERIPHERAL ARTERIAL DISEASE DIAGNOSED?

Peripheral arterial disease (PAD) is diagnosed based on general medical and family history, history of leg or heart problems, personal risk factors, a physical exam, and test results. An accurate diagnosis is critical, because people with PAD face a six to seven times higher risk of heart disease or stroke than the rest of the population. PAD is often diagnosed after symptoms are reported. If you have PAD, your doctor also may want to look for signs of coronary artery disease (CAD).

MEDICAL AND FAMILY HISTORY

Medical and family history is important in diagnosing PAD. Your doctor may:

- Ask about your family history of cardiovascular disease
- Review your medical history, including high blood pressure or diabetes
- Ask about any symptoms, including any symptoms that occur when walking or exercising
- Ask if you are currently or used to be a smoker
- Ask if you have any symptoms in the legs when sitting, standing, walking, or climbing
- Review your diet
- Review your current medicines