



Peripheral Vascular Disease: Symptoms, Risk Factors and Complications

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DESCRIPTION

Peripheral Vascular Disease (PVD), referred to as Peripheral Artery Disease (PAD) when specifically involving arterial circulation, it is a condition that affects the blood vessels outside the heart and brain. It primarily involves the narrowing, blockage or dilatation of arteries and veins, leading to impaired blood flow to the extremities, most commonly in the legs. PVD is a significant contributor to cardiovascular morbidity and it can have a major adverse impact on the individual's quality of life. The circulatory system is essential for delivering oxygen and nutrients to tissues while removing waste products. In PVD, this circulation becomes less effective due to difficulties with the peripheral blood vessels.

Types of peripheral vascular disease

Peripheral vascular disease is essentially divided into two types.

Peripheral Arterial Disease (PAD): This type occurs when arteries supplying blood to the limbs, particularly the legs, are narrowed or blocked, typically due to atherosclerosis. Peripheral vascular disease contributes to a majority of Peripheral Vascular Disease cases.

Peripheral venous disease: This type involves difficulties in the veins, such as blood clots (e.g., deep vein thrombosis) or venous insufficiency, where blood circulates in the legs due to improper vein function.

Causes of peripheral vascular disease

The primary cause of PVD is atherosclerosis, a condition where fatty deposits (plaques) develop in the inner layers of arteries, narrowing and become harder. However, other factors can also contribute to the development of PVD.

Blood clots: Sudden blockages caused by clots can obstruct blood flow in the arteries or veins.

Inflammation: Conditions such as vacuities can lead to blood vessel damage and PVD.

Injury: Trauma to blood vessels can cause narrowing or blockages.

Radiation therapy: Exposure to radiation can damage blood vessels, contributing to PVD.

Risk factors for peripheral vascular disease

Several risk factors increase the probability of developing PVD. Smoking is the most significant risk factor for PVD because it increases atherosclerosis. Lack of physical activity contributes to poor circulation and obesity, which raises PVD risk. High blood sugar levels damage blood vessels and nerves, this can result in diabetics especially vulnerable. Elevated blood pressure increases arterial stress, accelerating PVD progression. Excess cholesterol contributes to plaque buildup in arterial walls. PVD risk increases with age, especially after age 50. Men are more susceptible to develop PVD than women, though the risk for women increases after the menopause. A family history of atherosclerosis or cardiovascular disease increases susceptibility.

Symptoms of peripheral vascular disease

PVD symptoms vary depending on the severity of the disease and whether arteries or veins are affected. In its early stages, PVD may be asymptomatic, but as the condition progresses, the following symptoms may appear. Pain or fatigue in the legs or arms triggered by activity and relieved by rest. This is an essential sign of PAD caused by insufficient blood supply to the muscles during activity. As PVD advances, pain may occur even at rest, particularly in the feet or toes.

Complications of peripheral vascular disease

Peripheral vascular disease can cause major difficulties.

Critical Limb Ischemia (CLI): Advanced PAD can result in severe blockages that relieve limb tissues of oxygen, leading to non-healing wounds, infection and in extreme cases leg amputation.

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Stroke or heart attack: Atherosclerosis in peripheral arteries frequently integrates with blockages in coronary or carotid arteries, increasing the risk of stroke or myocardial infarction.

Deep Vein Thrombosis (DVT): Venous PVD may result in blood clots that can eliminate and travel to the lungs, causing a potentially fatal pulmonary embolism.