



EviCore
By **EVERNORTH**

Evidence-based care for peripheral vascular intervention



Peripheral vascular disease (PVD) occurs when there is a narrowing or blockage of an artery or arteries, which are the set of blood vessels that carry blood away from the heart to the rest of the body. While “vascular” can mean arteries and veins, the condition is also sometimes known as peripheral artery disease (PAD).*

*In this document, if the acronym PAD is used, it reflects the specific terminology used in a cited source. Otherwise, the condition is referenced as PVD, since that is a more inclusive term (i.e., “vascular” versus “artery”).

OVERVIEW

Unnecessary, potentially dangerous peripheral vascular interventions highlight need for evidence-based care

PVD is typically a result of atherosclerosis, which is a buildup of calcium and cholesterol plaque in the arteries. Atherosclerosis can lead to reduced blood flow to parts of the body. In PVD patients, it most commonly impacts the legs.

PVD affects a significant number of people, and it is often overtreated in ways that can be dangerous to patients.

While one in five people over 80 has PAD, around 90% of them have its milder forms (i.e., not chronic limb threatening).¹ Invasive interventions are not recommended for these milder forms, but they are conducted at alarming frequency.

Beyond the significant human cost, there is a financial cost as well. **The average annual per-person health care expenditures for patients with PAD is 93% higher than for those without it.**³ PAD patients have significantly higher out-of-pocket costs too.⁴

Despite the evidence that these treatments are often unnecessary and potentially harmful—and drive needless costs associated with that inappropriate care—there has been significant growth in this area. For example, an estimated **800,000 peripheral vascular stents are implanted each year**, which is expected to increase.⁵

The good news is that evidence-based approaches to PVD **can yield better outcomes** for these vulnerable patients across all phases of the disease, which they can successfully manage without surgical interventions for many years, while also lowering the overall cost of treatment.



~50% of PVD interventions overall do not meet evidence-based guidelines, increasing risk of death and major amputation.²



MILD, MODERATE, SEVERE:

The evidence-based approach to treating PVD

Mild: Many patients who have PVD exhibit no symptoms. In these cases, no interventions are recommended. However, aggressive management of modifiable risk factors is important in all phases of PVD to help slow disease progression. While some risk factors, including age, cannot be modified, other risk factors, including high cholesterol and smoking, can be.⁶

Moderate: One common symptom patients with PVD may have is leg pain or cramping when walking, which is called claudication. Claudication is not limb threatening, which means the patient is not at risk for limb loss or major amputation. For patients with claudication, lifestyle changes such as walking and smoking cessation can help lessen symptoms. The use of invasive first-line treatments for claudication is not recommended by any of the major medical societies.⁷

Severe: Chronic limb-threatening ischemia is the most severe form of PVD, and it can be identified through symptoms such as wounds that fail to heal. It requires revascularization (interventions to restore blood flow).⁸



Because patients with PVD can be at widely varying stages of the disease, a helpful way for providers to think about treating them is through escalating categories: **mild, moderate, severe.**

The majority of patients will fall in the mild and moderate categories.

Evidence-based treatment for PVD patients by severity level⁹

	Patient Symptoms	Percentage of Patients Impacted*	Evidence-Based Treatment	
MILD	None	20% – 50%	Cholesterol management, blood glucose control, smoking cessation	Percentage of patients with worse symptoms five years later: 10% – 20%
MODERATE	Claudication and other leg pain	Claudication: 10%–35% Other leg pain: 30%–40%	Lifestyle changes (i.e., walking more, smoking cessation)	
SEVERE	Resting foot pain, ulcers, gangrene	1% – 3%	Revascularization	

*PAD patients age 50+ at the time of their initial clinical presentation.

Treatment solutions that may do more harm than good

For mild or moderate category PVD patients, management of modifiable risk factors and lifestyle changes are likely all the treatment they will ever need. However, physicians often use invasive interventions in these cases even though the evidence does not support it. Such unnecessary interventions can carry serious risks without actually improving patient health outcomes or quality of life.

For example, patients with asymptomatic PVD or intermittent claudication often receive angioplasty, stenting or atherectomy without having received first-line treatment. This approach is not evidence based, and it carries significant risks. A patient may bleed from the surgical site or develop acute limb ischemia necessitating amputation. With stents, there is the risk of restenosis (re-narrowing of the blood vessel) or occlusion (closing of the blood vessel). The patient also must undergo regular imaging for as long as they have the stent.

These inappropriate, potentially harmful interventions can occur when patients are unnecessarily screened. For example, if a patient has atherosclerosis but no resistant hypertension and normal renal function, the evidence generally does not recommend screening for renal artery stenosis or renal artery angioplasty and stenting. However, such screening routinely occurs, often leading to unneeded interventions and additional testing.



Of the PVD patients who fall into the mild or moderate category—those who are asymptomatic or have claudication symptoms—**only 10%–20% will have worsening symptoms five years later.**

Examples of inappropriate, potentially dangerous PVD care

Patient Presentation	Common Inappropriate Care	Negative Impacts on Patients
Asymptomatic PVD or intermittent claudication (pain when walking)	Angioplasty, stent or atherectomy without first-line treatment	+ Risks from surgery, including bleeding from the surgical site, acute limb ischemia necessitating amputation, restenosis or occlusion of the stent + Imaging for the life of the stent
Known atherosclerosis but no resistant hypertension and with normal renal function; essential hypertension well controlled on medication	Screening for renal artery stenosis, renal artery angioplasty and stenting	Often leads to unnecessary interventions and additional testing

ATHERECTOMY

A case study in potentially dangerous PVD overtreatment

Atherectomy is a procedure that uses blades or lasers to remove plaque from arteries. While atherectomies may be appropriate for severe PVD, they are not indicated for patients with claudication. However, according to a recently published investigation, nearly one in four Medicare patients who underwent first-time atherectomies did so after a diagnosis of claudication.¹⁰ The dangers to patients can be significant. **For example, more long-term adverse outcomes, including amputation, are associated with atherectomy.**¹¹

Atherectomy is a particularly powerful example of the potential dangers of overtreatment for PVD. The issue has gotten national attention, including in news outlets including the [New York Times](#).¹²



Even with the lack of evidence for proceeding with atherectomy in many cases—and the potentially negative outcomes to patients—atherectomies have more than doubled in the past decade.¹²

In addition to negative impacts to patient safety and outcomes, the financial costs are also significant for patients, health plans and the health care system. People with PAD already have significantly higher health care-related expenditures and out-of-pocket expenses compared to other adults, even when adjusted for age, gender and race.¹³

The total cost of PVD exceeds **\$21 billion annually.**¹⁴



The positive impact of evidence-based, expert-driven PVD care

Failing to appropriately manage PVD—which patients will have to do for the rest of their life—has significant consequences. **Improperly treated PVD can lead to serious complications, such as critical limb ischemia and amputation, along with complications of atherosclerosis, such as stroke and heart attack.**¹⁷ However, with an evidence-based approach, PVD patients can get the care they need to relieve their symptoms and prevent the progression of the disease. This approach requires both the latest science and knowledgeable specialists.

Evidence-based guidelines on PVD are available from leading medical societies, including the Society for Vascular Surgery and the Society for Vascular Medicine. However, the existence of guidelines does not necessarily translate into improved patient outcomes. It is estimated to take about 17 years for medical evidence to reach clinical practice.¹⁸ That is too long for the millions of PVD patients who could benefit from better approaches now.

Another challenge is that many treatments for PVD are done outside the purview of vascular specialists. That can lead to significant knowledge gaps in patient care. Vascular surgeons and vascular-trained cardiologists have the specialized knowledge needed to treat this complex disease.

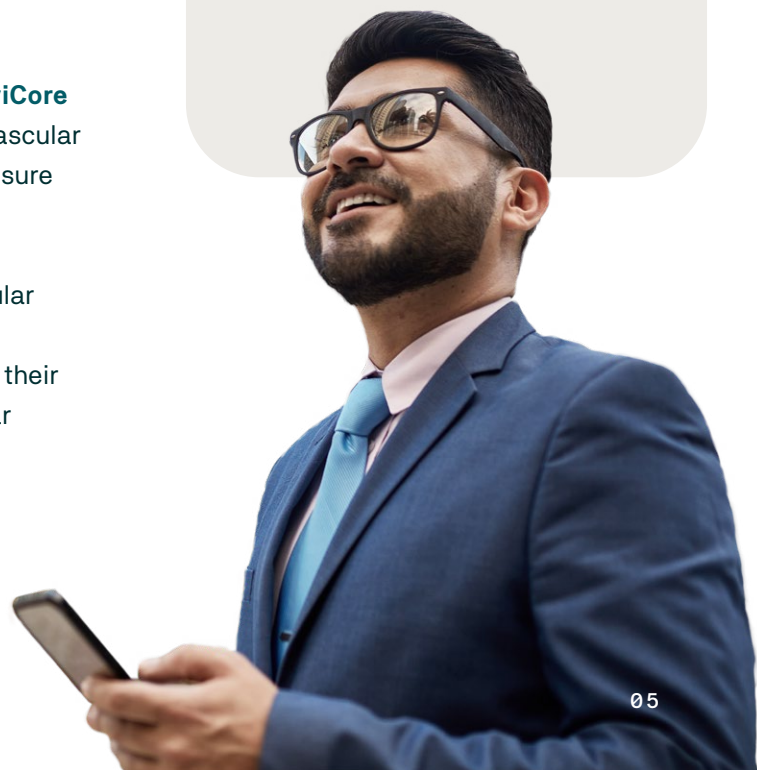
The Peripheral Vascular Interventions program from EviCore by Evernorth® is a vital component of our holistic cardiovascular solution that brings together evidence and expertise to ensure better outcomes for PVD patients. Our dedicated team, including seven board-certified vascular surgeons and 10 board-certified interventional cardiologists, reviews vascular imaging and interventions to ensure they meet the latest guidelines, helping PVD patients get care that best meets their needs. These services are reviewed exclusively by vascular surgeons and vascular-trained cardiologists and nurses.

Up to 12 million Americans are estimated to be living with PAD, and there is no cure for their disease.¹⁵

For perspective on the scope of patients impacted, there were an estimated 2 million cancer cases diagnosed in 2023.¹⁶

EviCore's Peripheral Vascular Interventions program delivers improved patient care and safety, reduces the burden on providers, and lowers costs for patients and health plans alike.

To learn more about how to better care for your members with PVD, contact your EviCore account executive.



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