Peripheral Vascular Disease

How Circulation Affects Your Recovery — and What You Can Do

1 What Is Peripheral Vascular Disease?

Peripheral vascular disease (PVD) refers to narrowing or blockage of the blood vessels outside the heart and brain — most commonly the arteries supplying the legs and feet. This reduces blood flow to muscles and tissues, which directly affects healing, exercise capacity, and the health of your skin and feet.

Feature	What It Means for You
Intermittent claudication	Cramping or aching pain in the calves, thighs, or buttocks during walking — relieves with rest. This is the most common symptom of PVD
Rest pain	Pain at rest (especially at night, relieved by hanging the leg down) indicates more severe disease — seek urgent review
Reduced wound healing	Poor blood supply means cuts, blisters, and ulcers heal slowly and carry a high infection risk
Skin and foot changes	Pale or bluish skin, hair loss on legs, cold feet, and thickened nails are signs of reduced circulation
Increased cardiovascular risk	PVD is a strong marker for heart disease and stroke — managing risk factors is essential

2 Treatment Options

Treatment	How It Helps	What to Know
Supervised exercise therapy	The most evidence-based treatment — walking to the point of discomfort improves collateral circulation	3x/week for 12+ weeks; walking programmes are first-line treatment
Antiplatelet medication (e.g. aspirin, clopidogrel)	Reduces risk of blood clots; lowers cardiovascular event risk	Usually prescribed long-term; do not stop without medical advice
Statins and blood pressure control	Slows disease progression; reduces cardiac and stroke risk	Equally important as treating the leg symptoms
Angioplasty / bypass surgery	Restores blood flow in severe or lifestyle-limiting cases	Not first-line — reserved for those who fail conservative management

Orthotics and footwear	Protects vulnerable feet; reduces pressure and friction on at-risk skin	Wide, deep footwear essential; custom insoles offload bony prominences

3 Exercise and Activity

Walking through mild-to-moderate claudication pain is not only safe — it is the most effective way to improve circulation in PVD. Your body responds by developing new blood vessel pathways (collateral circulation). Stopping at the first sign of discomfort limits this adaptation.

Principle	How to Apply It	Why It Matters
Walk to moderate discomfort	Walk until pain reaches 3–4/10, rest until it resolves, then repeat — aim for 30–45 min total	Intermittent walking drives collateral vessel development better than continuous low-intensity walking
Frequency over intensity	Daily short sessions are more effective than occasional long ones	Consistent stimulus is needed to drive vascular adaptation
Upper body exercise	Cycling, arm ergometry, and swimming are useful when leg claudication is limiting	Maintains cardiovascular fitness without provoking leg symptoms
Avoid leg elevation during rest	Unlike venous conditions, elevating the legs reduces arterial flow in PVD — keep legs level or slightly dependent	Important distinction from venous disease management

4 Foot and Skin Care

Area	What to Do
Daily inspection	Check feet and legs daily for cuts, blisters, redness, or skin breakdown — use a mirror for the soles if needed
Footwear	Always wear well-fitted, protective footwear — never walk barefoot. Avoid tight socks, elastic-top hosiery, or anything that restricts circulation
Skin moisturising	Dry skin cracks easily and becomes an entry point for infection — moisturise daily (avoid between toes)
Temperature	Avoid hot water bottles, electric blankets, and open fires near the feet — reduced sensation means burns can occur without warning
Nail care	Cut nails straight across; avoid cutting corners. Consider podiatry review for nail and skin management in PVD
Report promptly	Any wound, ulcer, or skin breakdown that does not begin to improve within 48–72 hours requires urgent clinical review

5 When to Seek Urgent Help

Symptom / Sign	Action
Pain at rest or at night	Contact your GP or vascular team urgently — this indicates critical limb ischaemia
Sudden severe leg pain, pallor, or coldness	Call 999 — this may indicate acute arterial occlusion (a medical emergency)
New ulcer or wound not healing within 2 weeks	Seek review within days — vascular ulcers can deteriorate rapidly without treatment
Black or dark discolouration of toes or skin	Urgent referral to vascular surgery — may indicate tissue loss or gangrene

6 Key Takeaways

KEY TAKEAWAY 1

Walking is the most effective treatment for claudication. Supervised exercise therapy — walking to the point of moderate discomfort and resting — is first-line treatment and produces the best long-term outcomes. Do not avoid exercise because it causes leg pain; the discomfort is expected and drives adaptation.

KEY TAKEAWAY 2

Foot care is critical — small wounds can become serious. Poor circulation means wounds heal slowly and infection risk is high. Check your feet every day, wear protective footwear always, and report any skin changes or wounds to your clinician promptly.

KEY TAKEAWAY 3

Risk factor management is as important as treating your legs. Smoking cessation is the single most effective intervention in PVD. Blood pressure control, statins, and antiplatelet medication all slow disease progression and reduce your risk of heart attack and stroke significantly.