Arterial Ulcers

Wounds caused by blocked or narrowed arteries in the legs

What is an arterial ulcer?

An arterial ulcer, sometimes called an ischemic ulcer, is a wound that happens when not enough oxygen-rich blood reaches the skin. It is usually found on the toes, the tips of the toes, the outer ankle, the heel, or anywhere the leg is rubbed or pressed.

These wounds are often painful, tend to look deep and 'punched out,' and they will not heal until blood flow is improved. That makes an early circulation evaluation the most important step.

Why does it happen?

Fatty plaque builds up inside the arteries and narrows them. This is called peripheral artery disease, or PAD. Less blood gets through, so the skin and tissue at the far end of the leg slowly starve for oxygen. A small injury that would normally heal in a week instead becomes an ulcer.

Smoking, diabetes, high blood pressure, high cholesterol, kidney disease, and a family history of heart or vascular disease all raise the risk.

What you may notice

- Leg or calf pain when walking that goes away with rest (called claudication)
- Pain in the foot at night that improves when you hang your leg over the side of the bed
- A wound with sharply defined, even edges that looks deep, dry, and pale or gray at the base
- Cool, shiny, thin, or hairless skin on the leg and foot
- Toenails that are thick and slow-growing
- Weak or absent pulses in the foot
- A foot that turns pale when raised and dusky red when lowered

How we treat it

- **Circulation testing.** We measure blood flow with painless bedside tests such as an ankle-brachial index or toe pressures, and we arrange vascular imaging when needed.
- **Referral to a vascular specialist.** If blood flow is significantly reduced, a procedure to open or bypass the blocked artery may be needed before the wound can heal. We coordinate this for you.
- **Protecting the wound.** A dry, stable arterial wound is often best kept dry and protected rather than moistened, which is the opposite of most other wounds. We will tell you clearly which approach yours needs.
- **Careful debridement.** We do *not* aggressively remove tissue from a limb with poor blood flow. Doing so can make things worse. Timing here matters.
- **Pain control and infection management.** These wounds hurt, and infection in a poorly perfused limb is serious. We treat both promptly.
- **No firm compression** unless blood flow has been confirmed as adequate.

What you can do at home

- Stop smoking. Nothing else you do will help this wound more. We can connect you with support.
- Keep your feet warm, but never use a heating pad, hot water bottle, or electric blanket on your feet. You can burn skin you cannot feel.
- Do not elevate the affected leg above your heart. Unlike vein wounds, raising the leg makes an arterial wound worse by reducing blood flow further.
- Sleeping with the head of the bed slightly raised often eases night pain.
- Wear well-fitting, protective shoes at all times. Never go barefoot.
- Walk as tolerated. Walking encourages small new vessels to form. Stop when it hurts, rest, then go again.
- Take your blood pressure, cholesterol, and diabetes medicines exactly as prescribed.

When to call us right away

- Sudden, severe leg or foot pain
- The foot becoming cold, numb, pale, blue, or black
- Rapidly increasing pain in a wound that was stable
- New redness, swelling, warmth, or bad-smelling drainage
- Fever or chills
- Any new dark or black area on the toes or foot