

Wounds - lower leg ulcers

Wounds on the lower leg are often caused by problems with veins or arteries, or a combination of both. The further away from the heart, the longer wounds may take to heal, particularly in people over 50 years of age. If a lower leg wound doesn't close about half of its surface area within four weeks, you should see your doctor or specialist. You may need professional medical care to help the healing process.

Circulation problems are a common cause

Skin cancer, trauma and some dermatological (skin) conditions may cause lower leg wounds. Most cases, however, are caused by problems with blood circulation such as:

- **Veins** – varicose veins account for about 70 per cent of cases and cause ulcers as a result of poor venous drainage of the skin.
- **Arteries** – account for about 10 per cent of cases and cause ulcers when blocked by atheroma (fatty deposits), leading to reduced blood supply to the skin.
- **A combination of both arteries and veins** – accounts for about 10 per cent of cases.

Symptoms

A leg wound caused by problems with veins (venous ulcer) has different symptoms to a leg wound caused by problems with arteries (arterial ulcer). Generally speaking, the symptoms may include:

- **Venous ulcer** – may be located in the lower third of the leg. The wound is shallow, leaks lots of fluid and isn't very painful. The surrounding skin is often discoloured. The lower leg tends to swell as the day progresses, but the swelling goes down in bed overnight. The wound may be slow to heal without the use of compression bandages or support stockings.
- **Arterial ulcer** – often located on the foot or higher up on the lower leg or back of the leg. The wound is painful and deep with unhealthy tissue at its base. Infection is common. These wounds can deteriorate rapidly and may need surgery in severe cases.

Risk factors for vein problems

Factors that may increase your risk of vein problems include:

- Spending long periods each day sitting or standing
- Varicose veins
- Family history of parents or grandparents who had slow-healing lower leg wounds
- Pregnancy, which commonly causes high blood pressure in the lower legs
- Past history of a DVT or blood clot in the veins.

Risk factors for artery problems

Problems with arteries are often seen in smokers, diabetics and those who have a diet high in saturated fats. The arteries become blocked, which restricts blood flow to the toes and other peripheral areas.

Correct diagnosis is important

It is important to find out why the wound on the lower leg is slow to heal. Do not accept that it is just a 'leg ulcer' and do not accept that it is due to 'poor circulation'. Ask your doctor to tell you the exact cause of the poor healing and then ask for a referral to a specialist who deals with lower leg wounds (vascular surgeon).

Diagnosis methods

The doctor or specialist should take your complete medical and surgical history. They may also:

- Examine the wound.

- Perform some tests to measure the blood flow in your lower leg, such as the ankle-brachial index. This test compares blood pressure readings taken at the ankle and at the arm using a device called a Doppler machine.
- Recommend an angiogram (special x-ray examination of the arteries) for an arterial ulcer, to find out if the artery needs surgery to clear the blockage.

Treatment options

Treatments may include:

- Cleaning the wound surgically
- Treating infection with antibiotics
- Managing pain with over-the-counter or prescription medication
- Advising rest for your feet to prevent damage to the ulcer and help speed the healing process.

Different ulcers need different treatment

Medical treatment aims to improve blood flow to the area and promote healing of the ulcer. The type of treatment depends on whether the wound is caused by problems with veins or with arteries. Options may include:

- **Venous ulcers** – are often treated with absorbent dressings and compression bandages or stockings. The bandages or stockings support the valves within the veins and improve blood flow. This treatment is successful in about seven cases out of every 10.
- **Arterial ulcers** – treatment is often urgent. Compression bandages must **not** be used, as this will reduce the blood supply even further. Surgery may be needed to clear out the blocked artery (angioplasty). In some cases, the section of blocked artery may require surgical replacement (by-pass surgery). In severe cases, the lower leg may have to be amputated.

Prevention

It is important to address the lifestyle factors that may contribute to your circulation problems. Improving your diet, taking moderate exercise on most days of the week and giving up cigarettes may reduce your risk of developing lower leg wounds in the future. Diabetics must aim for optimum control of their blood sugar and pay particular care to their feet.

Where to get help

- Your doctor
- Hospital staff

Things to remember

- Wounds on the lower leg are often caused by problems with veins or arteries, or a combination of both.
- Medical treatment aims to improve blood flow to the area and promote healing of the ulcer.
- The specifics of medical treatment depend on whether the wound is caused by problems with veins or with arteries.

This page has been produced in consultation with, and approved by:

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