A guide for patients about

drug ulcers – causes, treatment and how to avoid them

What is a leg ulcer?

A leg ulcer is a wound on your leg or foot that takes longer than six weeks to heal. Symptoms include pain, itching and swelling in the affected leg.

Types of leg ulcer

The most common type of leg ulcer is a venous leg ulcer (80 to 85% of all cases). This type of ulcer occurs when persistently high blood pressure in the veins of the legs (venous hypertension) causes damage to the skin.

Other types of leg ulcer include:

- arterial - caused by the arteries not working correctly
- mixed - elements of venous and arterial ulcers
- diabetic - caused by high blood sugar
- other causes - such as those associated with chronic inflammatory disorders e.g. rheumatoid arthritis.

How common are venous leg ulcers?

Venous leg ulcers affect around one in 500 people in the UK. However, rates of venous leg ulcers rise sharply with age and it is estimated that one person in every 50 who is over the age of 80 is affected by venous leg ulcers.

Risk factors

Risk factors for developing a venous leg ulcer include:

- obesity - this increases your risk of high blood pressure, which can damage the veins in your legs
- being immobile for a long period - this can lead to a weakening of the calf muscle
- deep vein thrombosis (DVT) - blood clots that develop inside the leg, which can damage the valves inside the veins
- varicose veins - swollen and enlarged veins caused by malfunctioning valves
- previous injuries to the leg such as a broken or fractured bone, which may cause deep vein thrombosis
- increasing age - generally, the older you get the less efficient your blood circulation system becomes.

How long will an ulcer take to get better?

It takes years for the venous disease to cause an ulcer, so it is not surprising that ulcers may take a long time to heal. With appropriate treatment most venous ulcers will heal in three to four months. A small amount may take longer or may not heal at all.

What are the symptoms?

A venous leg ulcer is a chronic wound with broken skin. If you have a venous leg ulcer, you may also have:

- swollen ankles filled with fluid that temporarily hold the imprint of your finger when pressed (known as pitting oedema)
- discolouration and darkening of your skin around the ulcer
- hardened skin around the ulcer, which may make your leg feel hard and resemble the shape of an upside-down champagne bottle
- small, smooth areas of white skin, which may have tiny red spots
- an infection.

A leg ulcer can be vulnerable to bacterial infection. Symptoms of an infected leg ulcer include:

- pain that is getting worse
- high temperature of 38°C (100.4°F) or above
- tender red area developing rapidly around the ulcer
- a possible increase in fluid leaking from the wound.
When should I get medical help?
Ulcers are unlikely to get better on their own so you should always contact your healthcare professional or GP if you think you may have a leg ulcer.

Causes
The veins in your legs have one way valves that make sure the blood flows up the leg towards the heart, not down. In some people, these valves are not very effective or can become damaged. If the valves are damaged, blood can flow the wrong way down the veins, which results in high pressure when standing up.

The constant high blood pressure in your legs causes fluid to leak out of the veins. The fluid causes swelling and damages the skin, which becomes hard and inflamed, leading to an ulcer.

Diagnosing a venous leg ulcer
Your healthcare professional will examine you and perform tests (such as a Doppler study) to see what type of ulcer you have.

Doppler studies
To rule out a condition affecting your arteries (vessels that carry blood from your heart to the rest of your body) your healthcare professional may carry out a test known as a Doppler study. This is to check for peripheral arterial disease, a condition where the blood flow to the legs is reduced. The test involves taking a measurement of your blood pressure in each leg, at the ankle, and comparing it with the blood pressure in your arm. The arterial blood pressure should be about the same in the arms and legs.

Treating a venous leg ulcer
A venous ulcer can be healed by:
• using firm sustained compression with a bandage or a stocking, and
• treating the underlying cause of the ulcer.

When appropriate, both treatments can be used at the same time.

Treatment for venous leg ulcers should always be carried out by a healthcare professional trained in leg ulcer management. In most cases, this will be a trained practice or district nurse. You may be invited to attend a leg ulcer clinic.

Compression treatment
In order to keep the pressure in the leg veins low when you are standing up, you will be treated with compression bandaging or stockings. Several layers of bandages may be required to get the necessary pressure to control the veins. Once the ulcer is healed, compression stockings are usually necessary to prevent the ulcer from returning. These stockings need to be specially fitted and are much stronger than ordinary ‘support tights’. If you have difficulty putting on your stockings, then speak with your nurse who will be able to advise on special stocking applicators. For non-venous leg ulcers, compression treatment may be modified or not used at all depending on the outcome of the Doppler study.

Dressings
The nurse may use a number of different dressings under the bandages depending on their assessment of the ulcer. The ulcer will be regularly re-assessed and as a result the dressings may change according to your needs.

Elevation of the limb
The higher the leg, the lower the pressure in the leg veins. If the foot is elevated above the heart then the pressure in the foot drops to a normal level. Put your legs up whenever you can and as high as you are able. The arm of the sofa is good.
Surgery
Very occasionally for the largest or very resistant ulcers either a skin graft or an operation on the veins may be necessary. If your ulcer is due to varicose veins then these may be treated, usually once the ulcer has healed.

What can I do to help?
The following may help your venous leg ulcer to heal more quickly:
• Try to keep active by walking regularly. Immobility can worsen venous leg ulcers and the associated symptoms, such as oedema (fluid-filled swelling of your ankles and feet).
• Whenever you are sitting or lying down, try to keep your leg elevated.
• Be careful not to injure your affected leg, and wear only comfortable well-fitting footwear.
• If you are prescribed an emollient (a cream or liquid which is applied directly to the skin by covering it with a protective film) by your nurse for venous eczema, use it as often as possible. This will hydrate your skin and keep it supple and healthy.
• Wear your compression bandage exactly as instructed by your nurse. If you have any problems with it, do not remove it yourself. Contact your nurse as soon as possible.

Treating an infected leg ulcer
If you have signs of an infection you may be prescribed a course of antibiotic tablets. Your nurse will continue to clean the ulcer as usual and a dressing will be applied. Treatment with compression bandages may be suspended for 48 hours when antibiotic therapy is started. You may be required to see your nurse more frequently to have your dressings and bandages changed. They will also monitor the ulcer to see how well it is healing.

Treating associated symptoms
Pain
Leg ulcers can often be painful. Mild to moderate leg pain can be treated using paracetamol. However, if your pain is more severe and does not respond to paracetamol, your healthcare professional may prescribe something stronger.

If after treatment your leg pain has continued to get worse, you should tell your nurse.

Leg swelling (oedema)
This is very effectively controlled with the use of compression bandages or graduated elastic medical compression stockings.

Keeping your affected leg elevated will also usually help to ease any swelling. Try keeping your leg raised above hip level for 30 minutes, three or four times a day. Putting pillows or cushions under your feet when you are asleep may also help.

Itchy skin
Itchy and irritated skin associated with ulceration is known as varicose eczema, and is caused by the fluids leaking out of your veins into the surrounding tissue. To treat varicose eczema, your nurse may suggest using an emollient (moisturiser) on the affected area, as well as a mild corticosteroid cream or ointment. These will ease the itching and encourage your skin to heal. Moisturising the skin will need to continue once the ulcer has healed.

After your leg ulcer has healed, there is a one in four chance of further ulceration developing within the next two years. You can take an active role in looking after your legs and to lower your risks of developing a new ulcer. Your nurse will be able to give you specific advice.
An easy way to remember how to keep your legs healthy and reduce the risk of venous ulcers is to follow these five easy steps. This should help ulcers to stay away for KEEPS:

**K**eep in touch
**E**at a healthy balanced diet
**E**mollients (creams and ointments)
**P**ain
**S**tockings and stop smoking

**Keep in touch**
Please get in touch with us as soon as possible if you:
- notice any changes in your leg’s skin condition
- have knocked or scratched any part of your leg.

Early treatment will reduce the risk of a larger ulcer developing.

Eat a healthy balanced diet. Continue to eat foods high in vitamins, minerals and proteins. These are found in a varied diet of meat, fish, eggs, cheese and dairy products, vegetables, fruit and nuts.

Excess weight puts an extra load on your leg veins and contributes to high blood pressure. Losing excess weight can help to prevent venous leg ulcers. Maintaining a healthy weight is also beneficial to your overall health.

Check your alcohol levels. The Department of Health recommends that men should drink no more than three to four and women should drink no more than two to three units of alcohol a day. One unit is equivalent to half a pint of normal strength beer, a small glass of wine, or a pub measure (25ml) of spirits.

Although your skin has healed on the surface, the layers below need to get stronger and thicker. It can take up to two years for your skin to fully heal, however, this area will always be vulnerable so you need to take good care of it.

Emollients (creams and ointments) need to be applied regularly every day. Keeping your skin well moisturised is very important. If the skin on your leg becomes dry and cracked it can potentially cause an environment for infection. As well as a moisturising cream, the emollient can be used as a soap substitute - please ask your nurse for advice. As you apply the cream, take your time to become aware of your leg shape and the feel of your skin so that you quickly notice any changes. Get in touch if you have any concerns.

Your emollient will be available on repeat prescription.

Pain may still occur in the scar where your ulcer was. This can be caused by the nerve endings reconnecting. Continue with any painkillers that you were taking before to keep yourself pain free, being careful not to exceed the recommended maximum dose. This will make gentle exercise easier and help your circulation. When you are relaxing, continue to elevate your legs. Remember to put your feet up for at least 30 minutes, three or four times a day.

**Stockings**
Please continue to wear your compression stockings every day. Like the compression bandages, the stockings help the circulation in your legs and are important in preventing another leg ulcer developing. Put a clean stocking on in the morning when your legs are less swollen. Do not cut the tops of the stockings. If they are too tight or loose, then please get in touch as soon as possible. Tight stockings can cause damage to your circulation and swelling in your knees, and loose stockings are ineffective. You will need two pairs of stockings - one to wear and one in the wash. Please see the manufacturer’s instructions for washing and care of material instructions. Your stockings will need to be replaced every three months and will be on your repeat prescription. You will be offered a six month follow-up appointment in the Doppler Clinic to review your stockings. This appointment will be sent to you.
Stop smoking
Cigarettes contain nicotine, which narrows your veins and arteries and damages your blood circulation, making venous leg ulcers more likely to develop. If you need help to quit, please contact our Stop Smoking Service or talk to your healthcare professional.

Phone: 0300 123 1220 (option 1)
Email: kcht.sss@nhs.net
Text: QUIT to 87023
Fax: 01303 858935
Web: www.kenthealthandwellbeing.nhs.uk

Possible complications of a leg ulcer
A leg ulcer can result in several complications, some of which are detailed below.

Immobility
You may find it difficult and painful to move around if you have a leg ulcer. This can make the ulcer worse, as blood pressure rises when you are immobile, aggravating your ulcer.

Loss of quality of life and general functioning
Living with a leg ulcer can be difficult. Ulcers can be painful and take a long time to heal, and you may find that you need a lot of time off work. For some people, the loss of independence and social isolation can cause emotional distress. If you are affected in this way, please talk to your nurse or your GP.

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