

Venous Leg Ulcer

Information and advice for patients

Vascular services

What is a venous leg ulcer?

A venous leg ulcer is an area of broken skin on the lower leg caused by increased pressure in the veins in the leg. It can vary in colour and size and you may also have symptoms of pain, itching and swelling in the leg.

What are the causes of a venous leg ulcer?

In a normal venous system, the veins in your legs carry blood back to the heart with the help of your calf muscle and foot pump (the movement of your calf and foot muscle during exercise). The veins have a one-way valve to ensure the blood flows upwards towards the heart, against gravity.

Damage to the valves in the veins can lead to the blood building up instead of being pumped back towards your heart. As a result, the pressure in your veins increases. This can lead to swelling of the ankles and leg, pain, aching in your leg, itchy skin and colour changes in the skin in your leg and eventually a leg ulcer can occur.

The following conditions are linked with the development of a venous leg ulcer which may increase your risk of developing one:

- Varicose veins
- A blood clot in the deep veins (Deep vein thrombosis)
- Faulty valves in the veins
- Fracture or trauma to your leg
- Multiple pregnancies
- Surgery
- Immobility
- Phlebitis
- Obesity
- Limited ankle movement
- Sleeping in a chair for long periods of time

How is a venous leg ulcer diagnosed?

A venous leg ulcer is diagnosed by its appearance and a physical examination and by taking a history that would indicate a risk of developing a leg ulcer.

Before your doctor or nurse can make a diagnosis and plan the treatment to help heal your ulcer, they will need to carry out a detailed assessment. The assessment will look at risk factors,

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signs and symptoms of venous disease. Part of the assessment will include asking you questions about your general health and what tablets you take. They will examine the ulcer surrounding skin condition. This information will help to build up a picture of what has caused your leg ulcer.

To help diagnose the cause of your ulcer, you may have your ankle brachial pressure index (ABPI) recorded or have a duplex scan of the veins in your leg.

Ankle Brachial pressure index - The blood pressure in your arm and leg is recorded with a hand held ultrasound machine called a Doppler.

Duplex scan - This looks at the blood flow in your legs, to help to see if you have any reflux in your veins.

What treatment will I need?

Most venous ulcers can be treated with compression therapy (compression bandages, compression stockings or compression wraps) and dressings to the ulcer. The compression therapy gives support to your calf muscle and damaged valves in the veins. The compression helps the blood to be squeezed out of your leg back to your heart. Compression therapy should feel comfortable, firm and supportive but not too tight or painful. The pressure applied is greater at the ankle and reduces towards your knee. This is to achieve graduated compression. Compression therapy is only applied by nurses who have had the appropriate training.

What benefits will I have from wearing compression therapy?

Compression therapy will:

- Help to heal your ulcer
- Help the blood flow the correct way
- Reduce the swelling in your leg
- May help reduce the pain in your leg
- May help reduce any itching in your skin

Compression Wraps

- There is an alternative treatment to compression bandaging in the form of a compression wrap. The compression wrap can be used to treat swelling of the lower limb and/or leg ulceration. For patients who are unable to apply and remove compression stockings it is an alternative to compression stockings.

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- Your doctor, or nurse will decide if a compression wrap is required. Your nurse will measure your leg for the compression wrap. The wrap is applied at ankle level to below the knee and is easy to secure with velcro straps. Some of the compression wrap systems come with a compression ankle stocking to wear with the wrap but this is not always necessary. A liner stocking is placed over the leg and the compression wrap applied on top. The wrap can be removed at night. It does not need to be worn in bed. Compression wraps should be replaced every six months. The compression wraps are available on prescription.

Leg Ulcer stocking kits

Multilayer layer compression bandages are the traditional treatment for venous leg ulcers. However there are two layer compression stocking systems for the treatment of venous leg ulcers. These are suitable for patients who are able to apply compression stockings. Your nurse will be able to advise which system would be best for you.

What are the risks?

Occasionally the compression therapy may be too tight or may slip. If you experience any of the following symptoms, you should remove the bandage/stockings/compression wraps and seek advice from your nurse /doctor.

- Pins and needles sensation in your toes
- Continuous blue or white toes
- Swelling of your toes
- Unusual pain in your leg foot or toes
- Numbness or reduced sensation
- Excessive itching, burning or irritation
- Slippage from the bandages
- Increased shortness of breath

If you have any leakage or slippage of the bandages, they will need to be reapplied by your nurse.

If you do not experience any of the above, the bandages should be left in place until your next nurse visit. Interfering with the bandages can delay healing.

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What are the risks of not getting treatment?

If your leg ulcer is not treated then it may not heal or will heal slowly. This can result in your symptoms becoming worse and the ulcer could possibly become infected, which would require further treatment.

Are there any alternative treatments?

There are many different types of compression therapy systems available. If the system you are prescribed doesn't suit you, discuss it with your nurse who may be able to arrange an alternative system.

A compression stocking over a dressing may be alternative, but how successful this is depends on the size of the ulcer and amount of fluid that leaks from your wound.

A two layer stocking system could be used over a small ulcer. The ulcer is dressed. A pale liner stocking is applied initially and a stronger compression stocking applied over the liner stocking. Both stockings are worn during the day and the second stocking can be removed at night.

A compression wrap (an appliance with Velcro straps) can be applied over a liner stocking. This enables a certain amount of self-care, allowing you to be more independent.

Treatment of your varicose veins may be possible to help your ulcer heal. Your doctor will discuss this with you if it is suitable.

How long will it take to heal my ulcer?

With the correct treatment some ulcers can heal in a few weeks while others can take months, even years. The key to success is keeping to your instructions. There are also many things you can do to help your ulcer heal more quickly.

Once your ulcer has healed, you will need to maintain the compression in the form of a compression stocking.

How can I help with the healing of my leg ulcer?

Weight control

As extra weight can put extra pressure on the veins in the legs, managing your weight can help to heal your leg ulcer.

Eat healthily

Eat a healthy, well balanced diet including fresh fruit and vegetables. This will help your wound to heal and help you to manage your weight.

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- Protein provides the building blocks which repair body tissue. Protein is found in meat, fish, eggs, cheese, milk, nuts and pulses.
- Vitamins and minerals help regulate body functions. They are found mainly in fruit and vegetables. Vitamin C is important in wound healing. Try to include fruit juice with added vitamin C to your diet every day.
- Iron is important for red blood cells which transport oxygen around the body. Oxygen is important in wound healing. Iron is found mainly in red meat, offal, fortified breakfast cereals, and pulse vegetables.
- Carbohydrates and fats are found in bread, potatoes, breakfast cereals, chapattis, butter/margarine, etc. They supply food energy and are important in wound healing.

Wear comfortable footwear

Ensure your shoes are not too tight. If they are tight, then this can lead to skin damage and foot ulceration, or the bandages being pushed out of place.

Skin care on your legs

Ensure your skin is moisturised with an unscented ointment or cream e.g. 50/50 paraffin. Observe your legs, note any skin changes and report them to your nurse/GP. Apply ointment/creams in a downward motion in the evening after removing your stockings or at each bandage/dressing change.

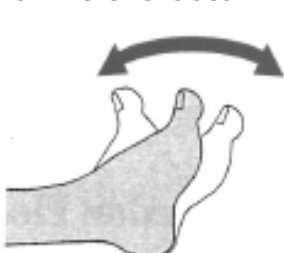
Be aware there is a fire risk with paraffin-based products e.g. 50/50 paraffin and emulsifying ointment. Do not use paraffin based products near a naked flame or cigarette.

Avoid injury

Be careful not to bang your legs on furniture or sharp objects. Any injury may cause a wound which may take a long time to heal.

Walk or exercise regularly

This will help to keep the calf muscle pump working properly. If you are immobile, perform foot and ankle exercises.



Move feet up and down



Rotate feet round and round

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Avoid standing or sitting in one position for long periods

If this cannot be avoided, activate the calf muscle pump by taking the weight off your heels and standing on your toes and rolling back onto your heels with toes off the ground. This will encourage the venous blood supply to return to the heart.

Elevation

If you are advised to rest with your legs up you should elevate your legs so your feet are above your waist height when sitting.

Do not interfere with your bandage(s)

If you are concerned about your bandages, contact your nurse immediately.

Pain

If you are having pain from your leg ulcer, it is important you take your prescribed painkillers regularly and do not exceed the recommended dose. If the pain is becoming worse or the painkillers are not helpful please consult your doctor.

Keep all appointments

It is important that you attend all of your appointments with your nurse or doctor.

Recurring leg ulcers

Once your leg ulcer has healed you will be measured and fitted with a compression stocking to wear during the daytime. Venous leg ulcers can recur after they have healed. Wearing compression stocking may prevent the leg ulcers from recurring. Your nurse/GP will advise you how often your stockings should be replaced and you will need to throw all of the old stockings away as they will lose their elasticity and will not work as well.

How to contact us

If you have any queries or concerns please contact the vascular nurse specialists. If no one is available, please leave a message on the answerphone with your name, hospital number (RXK number) and contact number.

Vascular Nurse Specialists

0121 507 5909

For more information about our hospitals and services please see our website www.swbh.nhs.uk, follow us on Twitter @SWBHnhs and like us on Facebook www.facebook.com/SWBHnhs.

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Sources of information used in this leaflet

- Wounds UK. (2015) *Best practice statement: compression hosiery*. [Online]. London: Wounds UK. Available at: <https://www.wounds-uk.com/download/resource/5799> (Accessed 1 October 2020).
- Wounds UK. (2016) *Best Practice Statement: holistic management of venous leg ulceration*. [Online]. London: Wounds UK. Available at: <https://www.wounds-uk.com/download/resource/5795> (Accessed 15 October 2020).
- National Wound Care Strategy Programme. (2020) *Draft lower limb recommendations*. [Online]. Available at: <https://www.ahsnnetwork.com/wp-content/uploads/2020/03/@NWCSP-DRAFT-Lower-Limb-Recommendations-20.03.20.pdf> (Accessed 15 October 2020).

Further information

Circulation Foundation

www.circulationfoundation.org.uk

National health service. (2019) Venous leg ulcer. Available at: <https://www.nhs.uk/conditions/leg-ulcer/> (Accessed 1 October 2020).

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