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Date written: Sept 2007  
Last reviewed: April 2017  
Next review due: April 2020  
Version: 2.2  
Code: PI0692

## ***Venous Leg Ulcers*** (page 1 of 4)

Please read this leaflet with advice from your doctor and nurse.

Venous leg ulcers are common in older people. The mainstay of treatment is compression. During treatment and after healing you need to keep as active as possible, but raise your leg above hip height when you are resting. In many cases laser treatment, ultrasound guided foam sclerotherapy or vein surgery to help prevent further ulcers developing. This is a chronic condition and after an ulcer has healed you will need to wear the compression hosiery prescribed by your doctor every day to help to prevent it recurring.

### **What is a venous leg ulcer?**

An ulcer is where an area of skin has broken down and you can see the underlying tissue. Venous leg ulcers are the most common type of leg ulcer. They mainly occur just above the ankle. About 1 in 100 people develops a venous leg ulcer at some stage. Without treatment, an ulcer may become larger and cause problems in the leg.

(Non-venous skin ulcers are less common. For example, a skin ulcer may be caused by poor circulation due to narrowed arteries in the leg, problems with nerves that supply the skin, or other reasons. The treatment for non-venous ulcers is different from that of venous ulcers.)

This leaflet deals only with venous leg ulcers.

### **What causes venous leg ulcers?**

Increased pressure of blood in the veins of the lower leg causes the problem. Fluid then 'oozes out' of the veins beneath the skin, causing swelling, thickening, and damage to the skin. The damaged skin may eventually break down to form an ulcer.

The increased pressure of blood in the leg veins causes blood pooling in the smaller veins next to the skin. The blood tends to pool because the valves in the larger veins are damaged. The valves may be damaged by a previous thrombosis (blood clot) in the vein, by high pressure in the abdomen (such as in pregnancy or obesity), or by varicose veins. Gravity causes blood to backflow through the damaged valves and pool in the lower veins.

### **How is a venous leg ulcer diagnosed?**

The appearance of a venous leg ulcer is usually fairly typical. It often looks different from ulcers caused by other problems such as poor

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circulation or nerve problems. To rule out poor circulation as a cause your nurse will check the blood pressure in the ankle and in the arm.

The ankle blood pressure reading is divided by the arm blood pressure reading to give a blood pressure ratio called the 'Ankle Brachial Pressure Index (ABPI)'. If the ratio is low it indicates that the cause of the ulcer is likely to be poor arterial circulation rather than venous problems. This is very important to know as the treatments are very different. (The ABPI should be checked every six months or so to make sure the circulation to the legs remains good.)

Routine blood and urine tests may also be done to rule out anaemia, diabetes, kidney failure, arthritis, etc, which may cause or aggravate certain types of skin ulcer.

## **What is the treatment for venous leg ulcers?**

The ulcer is dressed in a similar way to any other wound. Typically, a nurse will do this every week or so. The wound is cleaned when the dressing is changed - normally with ordinary tap water. However, an ulcer is unlikely to heal with just dressings. In addition to a dressing, the following treatments help the ulcer to heal.

### **Compression bandaging**

This is the most important part of treatment. The aim is to counteract the raised pressure in the leg veins. This gives the best chance for the ulcer to heal. The common method is for a nurse to put on 2 or more layers of bandages over the dressing. When the bandages are put on, the pressure is highest at the ankle, and gradually less towards the knee and thigh.

The dressing is changed and the bandages re-applied every week or so.

A note of caution: when you have a compression bandage on you should still be able to move your ankle around. If your foot changes colour or temperature or if you have increasing pain, remove your bandages and see your doctor or nurse as soon as possible for advice.

If the ulcers are small and not too wet, a hosiery kit can be used as an alternative to the bandages.

### **Elevation and activity**

When you are resting, if possible, try to keep your leg elevated (raised) higher than your hip. This is particularly important if your leg is swollen. The aim is to let gravity help to pull fluid and blood in the right direction - towards the heart. This reduces swelling in the leg, reduces the pressure of blood in the leg veins and helps the ulcer heal.

Try to set three or four periods per day of about 30 minutes to lie down with your leg raised. For example, lie on a bed or sofa with your foot on a couple of pillows. However, do not spend all your time in bed or resting. For the rest of the time, keep as active as you can, and do normal activities. If possible, regular walks are good, but do not stand for long periods.

Try to keep your leg raised when you are in bed at night. You can do this by putting some pillows under the bottom of the mattress. (It may not be possible to sleep like this if you

have certain other medical conditions or disabilities.)

## Other treatments

In some people, other conditions such as anaemia, poor nutrition, swelling of the legs, and other medical problems may mean that the skin has less chance of healing well. Other treatments may

- be needed to help heal a venous leg ulcer.
- try to stop smoking if you are a smoker. The chemicals in cigarettes interfere with the skin healing.
- antibiotics are sometimes advised for short periods if the skin and tissues around the ulcer become infected.
- painkillers if the ulcer is painful.
- skin care. The skin around an ulcer is often inflamed or scaly. Your doctor or nurse will advise on creams that will reduce inflammation and keep the surrounding skin as healthy as possible.
- dietary advice if your diet is not very good.
- iron tablets or other treatments if you are anaemic.
- a skin graft may be advised for a large ulcer, or for one that does not heal well.
- laser treatment or surgery for varicose veins or other vein problems may be advised in some cases. This is to correct the 'back pressure' of blood pooling in the veins, and allow an ulcer to heal.

## What is the outlook (prognosis)?

7 in 10 venous ulcers heal within 12 weeks if treated with compression bandaging that is re-applied every week or so. If compression is not used and an ordinary dressing or compression stockings alone are used, the chance of healing is less.

## How do I prevent them coming back?

Venous leg ulcers commonly recur after they have healed. To prevent this, you should wear a support (compression) stocking during the daytime after the ulcer has healed. This counteracts the raised pressure in the veins that causes venous leg ulcers. It is important that you wear the right size stocking - your leg will be measured by the nurse and the correct size of stocking given to you. You should get a new stocking about every three to six months (depending on the manufacturer) as the hosiery loses its elasticity. You will also need your arteries to be checked every six months or so.

There are different classes (strengths) of compression stockings - Class 1, 2 and 3. The higher the class (Class 3) the greater the compression. Ideally, wear Class 3 stockings. However, some people find Class 3 stockings too tight and uncomfortable, but Class 2 may be fine. It is still better to wear some sort of compression stocking than none at all.

A leg ulcer is much less likely to recur if you wear compression stockings every day.

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Surgery or laser treatment for varicose veins or other vein problems is often advised after an ulcer has healed to help prevent further ulcers occurring.

Summary:

- compression is the mainstay of treatment
- elevate legs above hips when resting
- keep as active as possible – go for walks
- avoid standing still
- do not smoke
- eat a healthy diet
- vein treatment is often necessary to prevent the ulcer coming back
- once the ulcer has healed you need to wear compression hosiery to prevent it coming back.