

# A Patient's Guide to **Leg Ulcers and Doppler Scans**

## **Introduction to leg ulcers**

Leg ulcers can occur at any age and often there may be an underlying health condition which can make you more at risk of a venous leg ulcer. They affect 1% of the adult population in western countries.

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

This can be any wound to the lower leg that can be slow to heal after 2 weeks. This is caused by poor venous blood circulation in the lower limbs. They can initially appear as a shallow weeping sore which can quickly develop, if left untreated, into a deeper wound. This can vary in colour and size, and can be painful, itchy and have a strong odour.

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

In a normal leg, the veins have the difficult job of transporting blood from the legs, up towards the heart. The calf muscle pump is the muscle used for walking and exercise. This contracts and relaxes. The valves inside the veins stop the blood flowing back down the leg. These valves can be damaged following deep vein thrombosis, pregnancy, standing or carrying too much weight. Ulcers usually happen spontaneously or because of injury to the leg.

## **What if I have an ulcer on my leg?**

Any ulcers will be covered with cling film for protection during the Doppler scan. The nurse will apply new dressing afterwards.

## **What is a Doppler Scan?**

The Doppler Scan is a hand-held machine that sends and receives a sound signal to and from blood vessels.



## **Why is a Doppler Scan performed?**

The Doppler scan is usually carried out before compression bandages or stockings are prescribed for your legs. It is a safety check similar to having your blood pressure taken and it assesses the blood supply in your legs.

## **Where will my Doppler Scan be done?**

This will be carried out in the Treatment Room by two nurses who will carry out a full assessment and examine both your legs.

## **What do I need to do to prepare for my appointment?**

Please wear loose fitting clothing as we need to access both arms and feet to listen to your pulse. Hearing aids and pacemakers are not affected by the scan.

## **Can I bring someone with me to my appointment?**

You may wish to bring a friend, carer or family member to accompany you for your scan. Please do not bring children or pregnant women with you.

## **How long does it take?**

The full Doppler assessment can take up to 1 hour. Your Nurse will be happy to answer any questions you may have with regards to your Doppler and treatment plan.

## **What happens during my Doppler Scan?**

The nurse will carry out a full assessment, check your blood pressure and gather information such as past medical history, medications, allergies and lifestyle.

You will be required to lay as flat as possible during the Doppler so accurate readings can be obtained. The nurse will provide a pillow to support your head and once you are comfortable will leave you for 15-20 minutes to relax. This ensures all the pulses are equal in the body prior to the Doppler being carried out.

Once you are relaxed, a blood pressure cuff is applied to one of your arms to record your blood pressure. A small amount of gel is applied to the inside of your elbow and the Doppler probe is placed on the gel.

When the pressure is being measured, you will be able to hear your blood as it moves through the blood vessels. This may be quite noisy, but this is normal.

The blood pressure cuff will be pumped up and slowly let down again, and the pressure recorded. This will be repeated on the other arm.

The pressure is then recorded in both legs. You may only have problems in one leg but it is important the flow in both legs is checked.

The recordings from the arms and legs will be compared and a result for each leg given. It is not unusual for it to take a little time to locate all blood vessels. Do not worry if this takes a little longer than you were expecting.

## **What happens with the results of the Doppler Scan?**

The Doppler Scan result will help the nurse to decide which type of treatment, bandage or stocking you require.

You may need to be referred to a specialist for more detailed tests. The nurse will discuss your treatment options with you. We will write to your GP to inform them of the Doppler result.

## How will my leg ulcer be treated?

This treatment helps improve the blood flow towards the heart. To do this, the damaged valve and calf muscles need support, and this is done by wearing compression stockings or compression bandages. The bandages help prevent the backflow of blood and reduce the swelling, pain, or itch as well as helping to heal the ulcer.

This is the gold standard treatment.



### Resource

For further information please visit:

 [www.legsmatter.org](http://www.legsmatter.org)

