

Varicose veins

The aim of this leaflet is to help answer some of the questions you may have about varicose veins. If you have any further questions or concerns, please speak to a doctor or nurse caring for you.

What are varicose veins?

Veins are blood vessels that take blood back to your heart. The veins just under your skin are called superficial veins. The larger veins that run through your muscles and cannot be seen or felt are called deep veins.

The term varicose veins only applies to superficial veins bulging under the skin. Some people have highly visible small veins that have a number of names, such as thread veins, spider veins, venous flares or reticular veins. These are not varicose veins and as treatment for them is considered cosmetic, it is not available on the NHS.

What causes varicose veins?

Our veins have valves within them to keep blood going back to the heart. If these valves weaken, they can let blood go the 'wrong way' back through the vein – this is called reflux. Varicose veins are most commonly caused by reflux in a superficial vein in your thigh (the long or great saphenous vein) or in your calf (the short saphenous vein). This vein then puts more pressure on weaker veins further down your leg and causes them to become varicose.

What problems do varicose veins cause?

If you have varicose veins, you may feel pain in the affected veins and your legs may feel tired and heavy. Lumpy veins may be visible and there may be swelling in your lower legs. Over time the skin around your ankle can start to look different, and eczema, brown pigmentation and eventually leg ulcers can appear.

Why do I have varicose veins?

It is not known why the valves fail and the veins lose their elasticity in some people. Often varicose veins run in the family, suggesting that there is a hereditary component. Other factors that increase the pressure in your leg veins, such as pregnancy, obesity and prolonged periods of standing, may speed up the development of varicose veins.

Will treatment of varicose veins get rid of the pain in my legs?

Varicose veins are very common and affect one in five people at some time during their lives. If the pain in your legs is caused by your varicose veins, treatment should help to relieve it. However, there are many other common causes of leg pain, such as arthritis, sciatica and restless legs. It is tempting to link any symptoms in your legs with your highly visible varicose veins, but treating your varicose veins will not improve any symptoms caused by other conditions. Your GP/consultant will be able to tell you if your symptoms are caused by varicose veins or another condition.

Is there anything I can do to help?

Anything that lowers the pressure in the veins of your leg can improve your symptoms. Exercise, such as walking, reduces the pressure in your veins because the muscles in your calf pump the blood out of your leg.

You can also raise your legs when sitting and avoid standing still for prolonged periods.

Being overweight puts more pressure on your leg veins, so losing weight will help. Your consultant or GP will be able to tell you if you are within the normal weight range for your height and advise you on eating healthily and losing weight.

Compression stockings squeeze the blood out of the veins under your skin (your superficial veins) into your deep veins. They will also reduce discomfort from your varicose veins.

What will happen at my first hospital appointment?

You will be seen by a vascular consultant who will assess your symptoms and examine your legs.

A duplex scan will be done in the clinic or arranged for a later date. This is a type of ultrasound scan which uses sound waves to detect blood flow in your veins. It is used to identify the veins with faulty valves that are the underlying cause of your varicose veins.

At the clinic, the consultant will look at your notes and assess the results of your scan, informing you of your diagnosis and treatment plan. Your treatment options will be explained to you in detail.

What is treatable on the NHS?

Referral for symptomatic primary or symptomatic recurrent varicose veins – veins causing troublesome lower limb symptoms such as pain, aching, discomfort, swelling, heaviness and itching – is advised for everyone. However, NHS funding for the treatment of varicose veins is closely monitored and operative treatments are restricted to people with documented evidence of the following criteria.

1. At least one of the following:

- varicose eczema
- lipodermatosclerosis or a venous ulcer
- a venous ulcer that has taken over two weeks to heal
- one or more episodes of documented superficial thrombophlebitis
- a major episode of bleeding from a varicosity.

AND

2. The patient has followed the pathway described above

AND

3. The diagnosis of varicose veins has been confirmed and there is evidence of truncal reflux (reflux in the great saphenous vein or short saphenous vein).

AND

4. The patient has a normal BMI, or there is evidence that NICE guidance on measures to lose weight have been followed over a period of at least one year.

You should be aware that unless you meet these criteria we will be unable to offer interventional treatment and your options will be limited to non-operative treatment, unless your GP has completed an Individual Funding Request.

What are my treatment options?

Non-operative treatment:

- support/compression stockings.

Operative treatments:

- radiofrequency ablation (RFA)
- ultrasound-guided foam sclerotherapy (UGFS)
- less frequently, surgery (stripping and/or multiple avulsions)
- a combination of the above.

Consent - asking for your consent

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

Treatments

Radiofrequency ablation (RFA)

This is also known as endovenous ablation technique. The procedure itself usually takes around half an hour. This is a method of closing off the vein that is feeding your varicose veins using heat. RFA is performed under local anaesthetic, which numbs a specific area of your body but does not put you to sleep, so you recover faster and avoid many of the risks associated with having a general anaesthetic.

During the procedure, the surgeon numbs your skin with the local anaesthetic before making a small (2mm) cut, usually near your knee or on your calf. Under the guidance of ultrasound imaging, a narrow tube called a catheter is put into the vein that needs treating. A fine probe is then passed through the catheter and inside your vein. Local anaesthetic is injected around the vein, and the catheter is activated and powered by radiofrequency (RF) to deliver heat to the vein wall. This is when the vein wall shrinks and the vein is sealed closed. The catheter is slowly removed and an ultrasound scan checks that the procedure has been successful.

A small dressing and a bandage will be placed over the small cut, and a compression stocking will be applied.

Ultrasound-guided foam sclerotherapy (UGFS)

Sclerotherapy involves injecting an irritant substance (called a sclerosant) into the veins to shrink and seal them off. The procedure itself usually takes only a few minutes. UGSF is done without anaesthetic.

The sclerosant is mixed with air to create foam so that it can be seen using an ultrasound scanner. Guided by the ultrasound scanner, the foam is injected into the vein that is causing the varicose veins.

A small dressing or a pad and bandage will be placed over the injection site to squeeze the treated vein flat and a compression stocking will be applied.

Surgery

This involves removing the problem vein and is performed under general anaesthetic (you will be put to sleep). This surgery is rarer than the keyhole procedures explained above. The operation varies from case to case, depending on where the faulty valves are and the size of your veins.

For the vein stripping procedure, you will have a cut about 4-6cm long running in the skin crease of the groin. Through this incision, the top end of the leaky vein (known as the great saphenous vein) is tied off to stop blood flowing through it (this is known as ligation). A wire is inserted into the vein and passed down to knee level. Then, a second cut is made around the knee and the vein is pulled out.

Less frequently, when the main vein on the back of the knee (short saphenous vein) has a leaking valve, it also needs ligation. An incision about 3cm long will be made on the back of the knee. The vein is then removed as before. The short saphenous vein is rarely stripped from the leg because it is close to a nerve, which may be damaged.

Finally, in most cases, the visible varicose veins are removed from the leg through tiny cuts (2-3mm). This procedure is called avulsion. There may be a large number of tiny incisions if the varicose veins are extensive.

The leg is bandaged firmly from toe to groin at the end of the operation.

Risks and possible complications after RFA and foam

Common problems

- Most people feel a tightening along their leg after the procedure.
- Once the local anaesthetic wears off, there may be some pain and bruising along the line of the treated vein. The bruising will disappear after a few weeks.
- About 1 in 10 patients develop marked inflammation (swelling) causing discomfort and lumpiness around the vein (this is called phlebitis). This usually settles down without treatment, but anti-inflammatory painkillers may help. It may also leave some brown staining on your skin when the swelling has reduced. This staining fades over time, but it can also be permanent. To minimise the chances of phlebitis, it is important that the vein is squeezed empty after the procedure. For this reason, you will need to wear compression stockings.

- Recurrence of varicose veins can occur after all types of procedures. The underlying weakness in the vein valves may result in other veins causing further varicose veins in the future, even when all previous veins have been treated correctly.

Rare problems

- Deep vein thrombosis (DVT) is a rare complication of any operation to the legs. DVT is a blood clot that develops within a deep vein in the body, usually in the leg. To lower the risk of developing DVT, you will be advised to return to walking normally after your treatment. Walking keeps your blood flowing in the important deep veins, whereas being inactive can increase your risk of DVT.
- There is a small risk of damage to other veins and nerves, which may result in numb patches of skin or tingling. This normally diminishes with time.
- Burns to your skin are possible after RFA, but very rare.
- Any operation that involves a cut to the skin carries a risk of infection. As RFA involves a very small cut, this risk is low.
- Allergic reactions can occur shortly after injections of sclerosant, but are rare.

What happens after RFA and foam sclerotherapy?

You will be able to walk out of the hospital around half an hour after your procedure. **You should not drive yourself home.**

Going home after RFA and foam sclerotherapy

Over the following days the body reacts to the damaged vein by causing inflammation (swelling) and absorbing the tissue in the vein. This makes sure that the vein stays closed.

The leg is usually more uncomfortable the day after the procedure. Pain is unpredictable and varies from person to person. You may need to take painkillers for a few days after the procedure. **Always follow the instructions on the packet.** Your leg may be slightly swollen after RFA. If you develop phlebitis, the pain may last up to three or four weeks. Anti-inflammatory painkillers will help until it settles down on its own.

You should wear the fitted compression stocking for a further two weeks. It should stay on at all times for the first 24 hours. After that, you may remove it to have a shower or bath and you do not need to wear it when you go to sleep.

The stockings may be uncomfortable and difficult to get on and off, but it is important to get them on correctly in order to get the most benefit from them. They are supposed to be **tight** and you may need someone to help you put them on and take them off.

To help get the stocking on, you can try sliding your foot into a small plastic bag. Grasp the top of the stocking, slide the stocking over the plastic bag and up the leg, smoothing it out evenly and making sure that it is not twisted or unduly stretched. Pull the plastic bag through the open toes to remove it. Pull the stockings all the way up so the correct level of compression is applied to each part of your leg.

Don't allow the stockings to roll down as they can form a tight band and dig into your skin. For the best results you should wear your stockings for the full two weeks but if they become very uncomfortable and painful, you can stop wearing them.

Please do not throw away the stockings as you may need them later on if you get pain.

It is a natural reaction to limp when your leg is painful, but your muscles, bones and joints are not affected by varicose veins treatment, so you need to walk as normally as possible. Walking keeps your blood flowing in the important deep veins, whereas being inactive can increase your risk of DVT. We recommend a **minimum of three 20-minute walks** each day after your procedure.

Regular daily exercise, such as walking or using an exercise bike, and wearing your stockings for a few more days may help with the pain and bruising.

Risks and possible complications after surgery

On top of the complications mentioned above, if you undergo surgery (in the form of vein stripping or multiple avulsions) you should be aware of the following potential additional complications:

- **Bleeding** – sometimes a little blood oozes from the wound sites during the first 12-24 hours. This usually stops on its own. If necessary, press on the wound for 10 minutes. If bleeding continues after doing this twice, contact your GP or the hospital.
- **Wound infection** – wounds sometimes get infected and this may need to be treated with antibiotics. This is not very common and bad infections are rare. Occasionally, hard and tender lumps appear near the operation scars or along the line of the removed veins. These can even appear some weeks after the operation, but need not be a cause for concern. However, if they are accompanied by excess swelling, redness and severe pain, they may represent a wound infection and you should see your GP regarding this.
- **Chest infection** – this can occur following surgery under general anaesthetic, particularly in smokers, and may require treatment with antibiotics and physiotherapy.

What happens after surgery?

Normally, you do not need to be admitted for this operation and will be able to leave hospital on the same day. It is important that you rest for the remainder of the day to recover from the anaesthetic. You will need someone to help you get home and to stay with you for at least 24 hours after your surgery. You are unlikely to be sick and should be able to eat and drink again within a few hours.

Most people describe the feeling in their leg as stinging or burning when they wake up from the operation. It is unusual for the leg to be painful. Discomfort in the leg usually resolves around two weeks after the operation.

Some of the incisions may bleed a little over the first 24-48 hours. This is why it is best to keep your leg covered with bandages for the first 48 hours. The bruising will last for three to four weeks. The incisions, although initially visible, will become virtually invisible within 9 to 12 months.

The bandages need to be removed after 48 hours and replaced with T.E.D.[™] stockings. You will be given a T.E.D.[™] stocking by the nurse looking after you in the recovery area after your operation. Wear the T.E.D.[™] stocking only during the day for a further 12 days. You do not need to wear it at night.

You can have a bath or shower 48 hours after your surgery. You can then remove the adhesive strips placed on the incisions during the surgery. You should remove your stocking before entering the bath or shower.

We recommend a **minimum of three 20-minute walks** each day after your procedure, as explained in the 'Going home after RFA and foam sclerotherapy' section above.

When can I return to normal activities?

You can carry out your normal day-to-day activities immediately after your treatment. However, you should avoid strenuous exercise for the first few days and then gradually build up the amount you do. Do not exert yourself initially, and be guided by how well you feel.

Swimming in public swimming baths should be avoided until all the wounds have healed.

When can I return to work?

You can return to work when you feel well and comfortable. We usually advise taking between two days to one week off work, depending on the type of work you do. If your job involves prolonged standing, driving or if you have had both legs treated at the same time, you may need to take longer off work.

Please check with your employer whether they require a fit note (sometimes called a sick note). It is usually okay to self-certificate for up to seven days, but if you are off work for a longer period you will need to see your GP for a fit note. We cannot supply fit notes.

When can I drive?

We advise that you **do not drive for at least 48 hours** after your procedure. You should only drive again when you are free of pain and able to perform an emergency stop comfortably. You should check with your insurance company to make sure you are covered to start driving again. If you are taking painkillers, please check with a pharmacist whether it is safe for you to drive.

How soon can I fly?

Sitting down for long periods with your knees bent increases the risk of DVT. Avoid long-haul travel (over four hours long) for at least four weeks after your procedure.

Will losing the vein make the circulation in my leg worse?

No. The important veins in your leg that return blood to your heart are the deep veins, which are not damaged by this treatment. The vein that is treated has blood flowing the wrong way (reflux). Some people's circulation is improved by treating the refluxing vein.

Will I have a follow-up appointment?

In most cases, the consultant will be happy for your follow-up to be done by your GP, unless there is a specific reason for you to see the consultant again. If this is required, you will be sent a letter by post.

It is important for you to understand that not every visible vein will disappear after your treatment, which has been performed to help relieve your symptoms, not for cosmetic purposes. There is usually the bonus of improved appearance, but this is not guaranteed nor is it the main reason for treatment.

Emergencies

Please seek help immediately – call 999 for an ambulance or go to the Emergency Department (A&E) – if any of the following occur:

- You have difficulty breathing, which gets worse when you take a deep breath.
- You have a sudden cough, or you cough up blood.
- You have sudden chest pain.
- You have pain in your calf and you are not able to put your foot down.

Useful sources of information

Contact us

If you have any concerns about your varicose veins treatment following your procedure, please contact your GP or the **vascular department** via the switchboard, **tel: 020 7188 7188** (Monday to Friday, 9am-5pm).

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit **web:** www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

tel: 020 7188 8748, Monday to Friday, 9am to 5pm

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

tel: 020 7188 8801 (PALS) **email:** pals@gstt.nhs.uk

tel: 020 7188 3514 (complaints) **email:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch.

tel: 020 7188 8815 **email:** languagesupport@gstt.nhs.uk

Was this leaflet useful?

We want to make sure the information you receive is helpful to you. If you have any comments about this leaflet, we would be happy to hear from you, fill in our simple online form, **web:** www.guysandstthomas.nhs.uk/leaflets, or **email:** patientinformationteam@gstt.nhs.uk

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