

Radiofrequency ablation (RFA) for varicose veins

The aim of this information sheet is to help answer some of the questions you may have about having RFA for your varicose veins. It explains the benefits, risks and alternatives of the procedure as well as what you can expect when you come to the clinic. If you have any questions or concerns, please do not hesitate to speak to a doctor or nurse caring for you.

What is RFA?

RFA, also known as the Venefit™ procedure, uses a catheter to close off the vein that is feeding your varicose veins.

What happens during the procedure?

The procedure is performed under local anaesthetic, which is medication that 'freezes' a specific area of your body so it is pain free, but does not put you to sleep.

Your surgeon numbs your skin with the local anaesthetic before making a small (2mm) cut, usually near your knee or on your calf. A narrow tube called a catheter is placed into the vein that needs treating. Ultrasound images are used to make sure it is in the right place. Local anaesthetic is injected around the vein and the surgeon then activates the tiny catheter, which is powered by radio frequency (RF) energy, to deliver heat to the vein wall. As heat is delivered, the vein wall shrinks and the vein is sealed closed. The catheter is slowly removed treating the affected vein. An ultrasound scan checks that the procedure has been successful.

Depending on the severity of your veins your surgeon may remove some of your visible varicose veins through small incisions (phlebectomies) or perform injections (sclerotherapy).

Dressings are placed over the small cuts and a compression bandage and stocking are placed on the leg. The procedure usually takes around half an hour. Over the next few 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 permanently.

What are the benefits – why should I have RFA?

Traditional surgery for varicose veins involves making a cut in your groin to remove the affected vein, this is known as stripping. It is done under general anaesthetic, which means you're asleep for the entire procedure.

RFA avoids this cut in your groin and much of the bruising around the area where the vein is stripped. RFA is done under local anaesthetic, so you recover faster and avoid many of the risks involved with having a general anaesthetic.

What are the risks?

Most patients feel a tightening along their leg after the procedure and a feeling of deep seated bruising. Once the local anaesthetic wears off there may be some pain and bruising along the line of the treated vein.

About one in 10 patients develop marked inflammation causing discomfort and lumpiness around the vein (this is called phlebitis). This settles down within a month.

Recurrence of varicose veins can occur both after surgical stripping and RFA. The underlying weakness in the vein valves may result in further varicose veins in the future. Overall the risk of recurrence after RFA is thought to be less than five in 100 people.

Rarer problems are a small risk of damage to other veins and nerves, which may result in numb patches of skin. Burns to your skin are possible, but very rare.

Any operation that involves a cut to the skin has a risk of infection. As RFA involves a very small cut, this risk of infection is low.

Deep vein thrombosis (DVT) is a rare complication of any operation on the legs. To lower this risk you will be advised to return to walking normally after RFA.

How well does RFA work?

The results of the procedure are generally very good. Studies have shown that the vein is sealed up in nearly everyone who has RFA (95 out of 100 people). Some studies have also shown that there is lesser degree of bruising and post procedure pain in RFA compared to surgical stripping.

Will losing the vein make the circulation in my legs 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 treated by RFA had reflux (blood going the wrong way). Some people's circulation is better after treating the refluxing vein.

Giving my consent (permission)

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

What happens after RFA and when I go home?

Your leg will be bandaged from the foot up to the top of the treated vein. You will be able to walk out of the hospital around half an hour after your procedure and after we have checked your blood pressure and bandages. You should not drive home.

The leg is usually a little more uncomfortable the morning after the procedure as the local anaesthetic has worn off and your leg will be slightly swollen. Simple painkillers are usually all that are required.

You will be asked to wear the bandage for 24 to 48 hours after the procedure. You should then remove the bandage and wear the fitted support stocking. You may remove the stocking to have a bath or shower but continue to wear it at all other times for a one week. Some people find it comfortable to wear it for longer than this.

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

We advise that you do not drive at least 48 hours after RFA. You should only drive again when you are free of pain and able to perform an emergency stop comfortably.

You can usually return to work after 36 hours depending on your recovery and the type of work that you do. If you develop phlebitis (lumpy inflammation along your vein) you may need longer off work. If you need a sick note please contact your GP.

Avoid strenuous exercise for a few days and then gradually build up the amount you do.

How soon can I fly?

Sitting down for long periods with your knees bent increases the risk of a DVT. You should avoid long haul travel (out of Europe) for at least four weeks after your procedure.

Will I have a follow-up appointment?

A follow up appointment will be arranged, usually six to eight weeks after your treatment, to check the results. You will be able to discuss the results of your treatment at this time.

Will I need further treatment?

Some patients may require further treatment (usually in the form of injections – sclerotherapy) to further improve the appearance of their legs. This is most common if you have thread veins in addition to your varicose veins. Your Consultant will advise you as to the likelihood of requiring further treatment.