

Radiofrequency Ablation (RFA): Patient information

You have varicose veins which can be treated using radiofrequency closure. This information sheet tells you about the procedure. Please read it carefully and ask your surgeon if you have any further questions or concerns.

What is Radiofrequency ablation (RFA)?

RFA is a minimally invasive treatment for varicose veins. It is one of the “endothermal” treatment methods recommended by the National Institute for Health and Clinical Excellence (NICE). The size and shape of the varicose veins will determine whether we are able to treat you using RFA. A heater probe attached to a generator is used to obliterate (close) the faulty vein, redirecting blood through nearby healthy veins as a result. You will go home on the day of treatment.

What will happen during the treatment?

An ultrasound scan will be done on your leg to identify the veins to be treated. An injection will freeze the skin and a small flexible wire will be passed into the vein. A fine tube is passed over this wire and then the radiofrequency probe is threaded through the tube. The position of the probe will be checked again by ultrasound. Local anaesthetic solution is then injected around the vein along its length to insulate it from the rest of the leg (this can sometimes sting for a few minutes before numbing the area).

The generator then creates heat energy to seal the vein up from the inside in a few minutes. You should not feel anything during the treatment. Once the vein has been sealed up, the probe is removed and a bandage applied to the leg. This bandage should be kept on for 48 hours, and then a support stocking should be worn for a further 5-7 days.

Sometimes in order to improve the results of your treatment the surgeon will also inject some of your veins with a foam solution designed to obliterate veins that cannot be treated with the radiofrequency probe. These injections can leave a brownish discolouration in place of the vein, but this almost always disappears within 12 months. Alternatively the more prominent veins may be removed under local anaesthetic, through small incisions in the skin (phlebectomies). Your surgeon will discuss this treatment with you at the time of your treatment if it was not discussed with you at the out-patient clinic.

What will happen after the treatment?

After RFA you will be asked to walk around for 15 minutes, have a drink and then go home. You should not drive, and if you are travelling for more than an hour from the hospital you should sit on the back seat with your leg(s) up. Stop every hour and walk around for 5 minutes. You will be offered a supply of painkillers to take home, although most patients do not require anything stronger than paracetamol. Normal activity, including work, can be resumed as soon as you like, although contact sports, heavy exercise and swimming should be avoided for 1-2 weeks. When the bandage is taken off, you may see some bruising or hardness under the skin. This is quite normal and will gradually settle. You should wear the stocking during the day for up to 2 weeks, but may remove it at bedtime or for bathing.

Will I need to come back to the clinic?

We will usually arrange to see you and scan your veins 6-12 weeks after your treatment, by which time most of the bruising and hardness will have settled. If any small varicose veins remain, these can then be treated as an outpatient by injection.

Sometimes it is not necessary to come back for a check up and your surgeon will let you know if this is the case when you have completed your treatment

What advantage does RFA have over conventional vein surgery?

RFA is performed as an outpatient under a local anaesthetic. Normal activity can be resumed straight away, and you should be able to return to work on the following day. RFA requires less incisions in the skin, so leaves fewer scars and less risk of complications such as wound infection, or pain following surgery. Approximately 5% of patients who have conventional surgery are left with patches of numbness on the leg – this appears to be even less common with RFA. Results so far suggest that radiofrequency ablation is probably better than surgery at treating varicose veins.

What are the potential complications?

There is a chance the vein may not be obliterated by the radiofrequency ablation (this occurs in about 3% of patients). If the procedure is not effective then it can be tried again, or the veins can be treated by conventional surgery, or foam injections. There may be a few visible varicose veins left after treatment, but these rarely cause symptoms and become less prominent with time. Most people do not require additional injection treatment for these residual veins, although if your veins have come back after traditional surgery there is a greater chance of requiring additional injections or phlebectomies to complete your treatment

A small number of patients have bruising or tenderness along the line of the treated veins that lasts for longer than 3 days, and this can feel like a “tightness” when bending or straightening the leg. If required, you may be prescribed some stronger painkillers for this, although the symptoms and tightness settle down over time. About 1% of patients experience some numbness in the leg after RFA but this is almost always temporary.

As with any surgical procedure there is a small risk of blood clots forming in the main leg veins (DVT) although this is less common after RFA than conventional surgery. If you are considered to be at increased risk of DVT your surgeon will arrange for you to have heparin (Fragmin) injections to reduce the risks of DVT

Allergic reactions to the local anaesthetic used during the treatment can occur but are extremely rare. As already mentioned foam injections can leave a brownish stain that takes a while to fade.

Airline travel

Although the risk of blood clots is minimal with these keyhole techniques we do not advise patients to undertake long haul air travel within 6 weeks of the procedure. Short flights may be acceptable, but if you have any doubts please contact your consultants secretary before attending for treatment.