Radiofrequency Ablation (RFA) for varicose vein treatment

Introduction
This leaflet is provided to give you information and help to answer any questions you may have about Radiofrequency Ablation (RFA), a minimally invasive (keyhole) procedure for varicose vein treatment.

What are varicose veins?
Varicose veins are enlarged veins in your leg which happen when there is a fault in the one-way valves inside the veins. These veins normally only allow blood to flow back to the heart. If the valves are not working properly when you stand, the blood may flow in the opposite direction. This causes increased pressure inside the vein. The vein then stretches and becomes swollen.

Symptoms of varicose veins
These may include aching, throbbing, itching, varicose eczema (red itching and inflamed skin), skin discolouration and/or ulceration, thrombophlebitis (clotting and inflammation of the veins) and occasional bleeding from the veins if knocked.

About your procedure
When you come into hospital the healthcare team will carry out a number of checks including consent for the procedure. They may mark the location of your veins with a pen.

RFA is usually carried out under local anaesthetic (while you are awake).

Local anaesthetic is injected all around the faulty vein. This will involve using several injections. Some patients may need a general anaesthetic for the procedure. Your surgeon will discuss this with you.
RFA is a procedure which closes the faulty superficial vein and leaves minimal scarring. A catheter will be placed into the faulty vein using an ultrasound scan for guidance. Once the catheter is in the correct position, a liquid containing local anaesthetic is injected all around the vein. Radiofrequency energy is used to heat the catheter which applies direct heat to the vein wall causing it to shrink and seal. Other varicose veins in your leg may be removed through small cuts or be injected with chemicals to close them (foam sclerotherapy).

**Wound care**
Following your procedure you will have bandages on your leg(s); these should be left on for 2 days. Once the bandages are removed, either by yourself or by the practice nurse, you will need to wear an elastic compression stocking for a further week. The stocking will be given to you before you are discharged.

**After the procedure**
Usually you are able to go home shortly after your procedure, providing there is someone at home to look after you for 24 hours. Please arrange for someone to collect you from the hospital as you cannot drive straight after the procedure.

The day after your treatment you are advised to keep mobile and gradually increase the amount of gentle exercise you take each day. When you are resting you should put your leg up on a stool or settee. It is not advisable to do strenuous exercise in the first few weeks after your procedure.

**Benefits of RFA**
- Improves your symptoms relating to your varicose veins
- Allows any leg ulcers to heal more quickly and help to prevent future ulcers
- RFA avoids cuts in the groin and stripping of the thigh vein. This reduces the chances of extensive bruising and pain or getting a wound infection following the procedure
- RFA carried out under local anaesthetic will allow a quicker return to normal activity
Risks/side effects

- You may have some pain and discomfort along the line of the treated vein 2 to 3 weeks after your procedure. This usually settles after a few weeks.
- Bruising is common. Rarely you may get a collection of blood under your skin (haematoma). This will settle over time.
- Some varicose veins may remain despite treatment.
- Varicose veins may come back in about 1 in 10 people over a 5 year period.
- You may develop inflammation of the treated veins, which will cause lumpiness and discomfort around the vein. This is known as phlebitis and should settle after a few weeks.
- The heat from the catheter can sometimes bruise nerves close to the treated vein, causing numbness. This is uncommon and usually temporary.
- Burns and blistering to the skin can happen due to the heating process but this is very rare.
- Infection is rare.
- Skin staining may happen (a brown line along the treated vein) this usually pales over time but in some cases may be permanent.
- Deep Vein Thrombosis (DVT) blood clot in the leg happens in less than 1 in 100 cases causing pain and swelling in the calf. If this happens a course of blood thinners may be necessary.
- Pulmonary Embolism (PE) is extremely rare. This is a serious condition that happens when a blood clot breaks off into the bloodstream and blocks one of the blood vessels in the lungs. This may cause shortness of breath, pain in the chest and/or coughing up blood.

If you experience any of these symptoms you must seek urgent medical treatment.
Alternative treatments

- Elastic compression stockings can help the symptoms caused by varicose veins
- Foam sclerotherapy injection is a procedure where a chemical is injected into the faulty veins and causes them to seal
- Open varicose vein surgery involves disconnecting and removing the faulty superficial veins; usually under a general anaesthetic

Not all varicose veins are suitable for RFA treatment. Your health care team will be able to discuss this with you.

Returning to work

You can return to work when you feel able, although it is advisable to take at least 48 hours off after your procedure. Sometimes a week off work may be needed. It is important that you walk and keep mobile in the first few weeks after the RFA treatment. This helps to prevent blood clots in the veins.

Driving

You should not drive, operate machinery, or do anything strenuous for at least 48 hours. Following the 48 hour period you can drive as soon as you are able to perform an emergency stop without hesitation.

If applicable please discuss when you are able to travel by air following your procedure with your healthcare team.

Medication

Let your health care team know about all the medication you are taking and follow their advice.

Following your procedure pain relief such as paracetamol, ibuprofen and/or codeine should be taken regularly for the first few days. This will be discussed with you before you go home.

Follow up

You will be sent an out-patient appointment to be seen in the Surgical Clinic.
Contact information
If you have any questions please contact the consultant looking after you via the hospital switchboard:

Gloucestershire Hospitals NHS Foundation Trust
Tel: 0300 422 2222
When prompted ask for the operator, then for the consultant looking after you.

Guiting Ward
Tel: 0300 422 2352

Further information
National Institute for Health and Care Excellence (NICE)
Website: [www.nice.org.uk/IPG008guidance](http://www.nice.org.uk/IPG008guidance)

NHS Choices
Website: [https://www.nhs.uk/conditions/varicose-veins/treatment/](https://www.nhs.uk/conditions/varicose-veins/treatment/)

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