



Radiofrequency ablation (RFA)

Treatment for refluxing superficial veins in the legs

At a glance

RFA closes a faulty superficial vein using controlled heat delivered through a thin catheter. Blood is redirected through healthy veins. The procedure is performed with ultrasound guidance, usually under general anaesthetic.

Why varicose veins develop

One-way valves normally help the used blood travel up the leg. When valves fail, blood flows backwards (venous reflux), increasing pressure in surface branches. This can cause bulging veins, aching, heaviness, swelling, inflammation or skin changes.

Which vein is treated?

RFA is usually used for a refluxing great or small saphenous vein. A duplex ultrasound maps the abnormal vein and checks the deep veins. Closing a faulty surface vein does not obstruct the main circulation in the leg.

How RFA works

A catheter is placed inside the target vein. Radiofrequency energy (electricity) heats the vein wall in short sections, causing it to contract and seal. The closed vein becomes scar tissue and is gradually absorbed.

What RFA does - and does not - treat

Closing the main refluxing vein reduces the pressure feeding varicose branches. Some branches shrink, but others may need removal (phlebectomy) or sclerotherapy at the same visit or later. New veins can develop over time.

Alternative treatments

Depending on the ultrasound and your preferences, alternatives may include VenaSeal glue, foam sclerotherapy, open surgery, or compression for symptom relief.



What to expect on the day

RFA is usually a day procedure; the precise anaesthetic and accompanying treatment depend on your plan.

1

Before treatment

Tell us about pregnancy, allergies, previous blood clots, mobility problems and all medicines, especially anticoagulants, diabetic and weight loss medications. Follow the fasting and medication instructions given for your procedure.

2

Ultrasound and local anaesthetic

The vein is marked with ultrasound. A needle is placed into the vein and a catheter advanced. Dilute local anaesthetic is injected around the vein; this numbs the area and protects nearby tissues from heat.

3

Ablation

The catheter position is checked, then heat is applied as it is withdrawn in sections. If you are not having a general anaesthetic, you may feel gentle heat or pressure but should not feel significant pain.

4

Treatment of branch veins

Bulging branches may be removed through tiny punctures or treated with sclerotherapy. This can cause more temporary bruising and lumps and may alter dressing or compression instructions.

5

After the procedure

Dressings and compression will be applied. You will walk before leaving. Please arrange transport if you have sedation or a general anaesthetic.

Results and follow-up

The treated main vein remains closed permanently and symptoms should improve over the following weeks. Follow-up ultrasound will be used to confirm closure and exclude a clot. Residual veins may be reviewed for further treatment.



Recovery, risks and when to call

Most people return to light activity quickly. Tenderness and bruising commonly take one to three weeks to settle.

Aftercare

- Walk regularly and avoid prolonged immobility.
- Bandaging will be applied in theatre and should remain in place for two nights.
- After two nights, remove all the bandaging at home, have a shower and fully dry the leg. Apply a few small dressings if any wounds are still bleeding a little. If you will be unable to remove the bandaging yourself, please let us know.
- Then wear the compression stocking for nearly all the time you are awake for two weeks. You may take it off at night if you prefer, or you may wear it overnight. You may also continue wearing it for longer than two weeks if you wish.
- You may drive once you are wearing the stocking and feel comfortable and able to control the car safely. Most patients should be able to return to work after three days.
- Long-haul flying (over 3 hours) should be delayed for one month.

Expected effects

- Bruising, tightness, tenderness or a firm cord along the treated vein.
- Lumpiness where branch veins were removed, if phlebectomies were performed.
- Temporary altered sensation, numbness or tingling from irritation of a nearby sensory nerve.
- Some residual varicose veins may remain after the main refluxing vein has been treated. If needed, these can usually be treated in the rooms with ultrasound-guided foam sclerotherapy.
- There is also a separate risk of new or recurrent varicose veins developing years later because of an underlying genetic susceptibility. If this occurs, you are encouraged to return for another ultrasound scan and review.

Less common or rare complications

- Bleeding, infection, skin burn or superficial thrombophlebitis.
- Deep-vein thrombosis or pulmonary embolism.
- Extension of clot from the treated vein toward a deep vein, sometimes requiring anticoagulation and repeat ultrasound.
- Persistent nerve symptoms; these are more likely when treating veins below the knee.

Contact the rooms promptly

- Increasing pain, redness, heat, discharge or fever.
- A markedly swollen or painful calf or leg.
- New numbness or weakness that is severe or not improving.

Emergency symptoms

Call **000** for chest pain, shortness of breath, fainting, coughing blood, or sudden neurological symptoms.

Please call Gold Coast Vascular on **5597 1653** with concerns. This leaflet is general information and does not replace your individual instructions.