

Vascular Unit

VNUS Closure (radiofrequency ablation) for the treatment of varicose veins

You have been advised that your varicose veins are suitable for treatment with minimal access VNUS closure as an alternative to the traditional open surgery. This is often carried out in combination with Multiple Varicosity Removal through many small incisions (MVR) or foam sclerotherapy.

This information is designed to support the detailed explanation you will receive in the outpatients' consultation. However, if you have any further questions before the surgery, you should ask for another appointment as time on the day of surgery is extremely limited to answer detailed questions.

As a group of consultants we treat patients from all over Warwickshire. In order to speed up your treatment, you might be offered surgery under the care of a different consultant if that gets your surgery done faster. We will try to treat you as close to your home as possible. However, if you wish to be treated in a specific location, or under the care of a specific consultant, you need to let us know. Details of how to contact us are at the bottom of this leaflet.

Sites where venous surgery is carried out include:

- UHCW main site
- Rugby St Cross
- Stratford hospital
- Warwick Hospital



Patient Information

The Procedure

VNUS closure is a treatment for varicose veins that seals the veins from the inside using heat from radiofrequency energy (just like your microwave). It is carried out under local anaesthetic in a clean facility; as a day care procedure. What is often confusing is that it is designed to treat the underlying *cause* of the varicose veins (the big lumpy veins that you can see) and is often directed at the veins *above* those that might be a problem for you. The reason is that veins are (much) less likely to return soon if this is done and many veins below go back to normal as a result of this alone. However, to try to achieve a great result, this is often combined with MVR or foam sclerotherapy at the same time. These are discussed in another information leaflet with which you should have been provided. The procedure usually takes 90 minutes, although there is additional time being admitted, waiting for your surgery slot and recovery before discharge.

Generally only one leg is treated at a time, although in some circumstances both may be treated together, this will be discussed with your consultant. Sometimes it is not possible to treat even one leg completely in a single session if both the front and the back of the leg need treatment.

Before treatment, your leg will be marked with pen by a member of the operating team, and you will be asked to sign a consent form. In the treatment room, your leg will be cleansed with antiseptic and sterile drapes applied. A small amount of local anaesthetic is used to numb locations of the leg which can sting initially when injected. A vascular access sheath (tube) is inserted through a 5mm incision into the target vein using ultrasound guidance. The VNUS catheter is inserted through this until it has reached the intended initial treatment zone near the groin or in the back of the leg. Further injections of local anaesthetic are then inserted through several needle punctures along the line of the vein to be treated. Although this sounds unpleasant, most people report a much better experience than with a dental injection. Once complete, the bed is tipped a little so the head is slightly below the feet. The catheter is connected to a machine that heats the end of the catheter to a high temperature and destroys the vein. This is then gradually withdrawn along the length of vein, and treats 7cm sections as it goes.

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If MVR for the big, prominent veins is to be carried out, then further local anaesthetic is injected for this over a wide field in preparation for further incisions and pulling the veins out. If total endovenous ultrasound-guided foam sclerotherapy (UGFS) is to be carried out, the 3 or 4 pre-cannulated vein sites are merely injected with foam sclerosant which expands to cover a wide field of veins.

After the procedure a full length support stocking will be applied to the treated leg, although additional combined treatments as above often require additional bandaging under the stocking. If you have also had MVR, you may be asked to lie with your feet up for 30 minutes or so before leaving.

You should not drive yourself to the hospital for your procedure or drive yourself home after the procedure. You can start to drive again only when you are able to complete an emergency stop safely and for some patients this can be 48 hours or longer after surgery.

Care after discharge

Management of your stocking and bandage vary according to your specific treatment, whether it is in combination with MVR or UGFS, or your particular needs. This will be discussed with you at the time of surgery. However, *generally* any bandages are left in place for 48-72 hours. After that bandages can be removed and the stocking re-applied. This is generally kept on day and night (with removal for washing) until a week from the surgery and then just worn during the day for the second week.

There are no restrictions to general exercise or activities', providing the stocking is worn as advised. However, low impact exercise such as walking is encouraged, together with good hydration with clear fluids. High impact exercise (like aerobics or jogging) may be uncomfortable in the first few weeks due to bruising, but this is less commonly seen with combination UGFS. Strength training which involves strenuous exertion and straining is not encouraged for 4-6 weeks.

You should not plan to fly for two weeks following treatment.

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If you have had combination MVR, the paper strips used to close the incisions will normally drop off on their own. They can be peeled off after 5 days if still present.

Progress after discharge

Most patients feel minimal discomfort following VNUS closure and 40% of patients do not require any painkillers at all. If you do wish to take something, simply take what you would normally for a headache such as paracetamol or ibuprofen. If you have any sore red lumpy patches over the areas treated with MVR or UGFS, topical ibuprofen or Voltarol cream or gel can be soothing. Your local pharmacist should be able to advise on any of the above.

VNUS treated vein above your varicosities can sometimes be felt under the skin, like a cord. It may feel a little tight at first, particularly on exercising or stretching, but it often softens up quite quickly and within a few weeks disappears altogether.

Complications Following VNUS Closure

Studies have shown that VNUS closure is a very safe and effective way of treating varicose veins. There is less bruising and discomfort compared to other methods of treatment, particularly if combined with UGFS. MVR can cause bruising, with discomfort from this and the multiple small incisions. These incisions eventually scar to thin pale lines, but may be very red and noticeable initially.

- If you have had MVR, you will have several small scars which will eventually hardly be noticeable
- Some patients get tenderness and lumpiness around treated veins (phlebitis). This is more common with UGFS, because it is by this method that the veins scar and involute (disappear).
- Approximately 2% of patients may have some altered sensation of the skin due to heat damage of skin nerves. In most cases this will recover, but in a very few this remains.
- Many patients get areas of skin pigmentation with either MVR or UGFS. This tends to reduce in intensity, but may take 2 years to complete

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- Some patients get areas of vein thickening (due to the intended vein scarring) which can be felt under the skin in a similar way to that mentioned above. These also soften over a few months following surgery.
- Rarely, heat transmitted from the VNUS probe or inflammation from phlebitis can cause skin breakdown locally (ulceration). This may take several weeks to heal.
- Recurrence – even with the best surgical treatment (at both the underlying cause, and the veins themselves) varicose veins can return.
- There is a rare incidence (less than 1%) of deep vein thrombosis following VNUS surgery. This is lower than open surgery, but is the most significant potential complication of this surgery. Although this is treatable, it can lead to an even more serious complication of pulmonary embolus. If you get increasing pain, swelling, bluish discolouration of your treated leg or foot in the weeks following surgery, seek help from your GP or A&E department without delay.

Review after VNUS Closure

You will normally be seen in the outpatient clinic by your operating consultant in the weeks following your surgery who will check on your recovery. Here you will have the opportunity to ask any questions or discuss aspects of your treatment. **Please contact your consultant's secretary if you have any questions or concerns in the meantime. The contact number can be found at the top of your copy of the consultation letter.** Otherwise, telephone 024 7696 4000 (Hospital Switchboard) and ask for your consultant's secretary.

We hope that you have found your treatment by the vascular surgery team to your satisfaction. We welcome your comments, compliments and feedback concerning the care that you have received, in our continual attempt to provide the very best possible care. We are constantly looking to improve our service. This can be done by the PALS details below:

Useful Contacts

Your consultant secretary's number can be found at the top of your consultation letter copy

PALS (Patient advice and liaison service): 0800 0284203

Patient Information

Stop smoking Coventry: 0300 200 0011 www.covwarkpt.nhs.uk

Stop for life: 0800 612 4580 help@stop4life.co.uk

Stop smoking Services: 024 7696 4760 stop
smoking.services@uhcw.nhs.uk

Benefit Enquiry Line: 0800 882200

The trust has access to interpreting and translation services. If your need this information in another language or format please contact us on 024 7696 5569 or 024 7696 6914 and we will do our best to meet your needs.

The trust operates a smoke free policy

To give feedback on this leaflet please email feedback@uhcw.nhs.uk

Document History

Department:	Vascular
Contact:	26914
Updated:	June 2021
Review:	June 2023
Version	5
Reference:	HIC/LFT/1239/11