

VARICOSE VEINS

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Successful treatment depends on careful pre-operative assessment. No two peoples' varicose veins are the same and the right procedure for one person may not be successful for someone else.

Treatment of Varicose Veins

Non-operative Treatments: drugs, compression stockings, ultrasound guided foam sclerotherapy.

Operative Treatments: minimally invasive surgery, VNUS Closure, Endovenous Laser Therapy (EVLT), ClariVein™ technique.

The majority of varicose veins are treated surgically but this may not be appropriate for everyone. Alternatives will be described.

Within surgery there are now a range of techniques which can be applied to treat varicose veins. The correct treatment depends on careful assessment described previously. Similarly, the results obtained from these techniques will depend on the experience and skill of the surgeon performing them. It is unwise to assume that every surgeon achieves the same results: choose a surgeon based on the recommendation of someone you know, a recognised surgeon with a proven record.

Non-operative Treatment

Drugs: there are a number of herbal remedies advertised for the treatment of varicose veins. It is difficult to assess the efficiency of these agents as many of them have never been subjected to large scale randomised controlled trials.

Skin Creams: some creams are useful to treat damaged skin and to fade the brown discolouration caused by venous eczema.

Compression Stockings: these work by compressing the veins to decrease the amount of blood within them. Compression stockings are classified according to how much pressure they exert on the leg; how tight they feel. Stockings are graded from the lightest amount of compression (class 1) to the strongest (class 4).

In order to be effective the compression pressure exerted by the stocking has to be sufficient to counteract the pressure of the blood within the veins pressing out. In normal people the pressure within the veins is in the region of 12-15mmHg. This is adequately controlled by class 1 stocking. Most varicose veins exert a pressure of 15-20mmHg which requires a class 2 stocking and more severe varicose veins or deep venous insufficiency require a class 3. Class 4 stockings are for more serious conditions.

In addition to the degree of compression, stockings also vary in the material, length and various other criteria. Colour brochures can be obtained from many compression stocking manufacturers such as Medi, Sigvaris, Jobst and others.

Ultrasound Guided Foam Sclerotherapy

Sclerotherapy works by injecting a chemical into the veins which causes them to collapse and fibrose. The treatment can be performed as an outpatient procedure and avoids the need for admission to hospital for an operation.

Traditional sclerotherapy was popular in the 1970s and 80s but one of the disadvantages of traditional sclerotherapy was the lack of control over the amount of substance injected into the vein. The use of ultrasound enables the vein to be visualised and the sclerosant is injected into the vein under direct vision. This ensures the sclerosant is injected directly into the vein and also provides information that the treatment is complete. Injections are repeated at 3 weekly intervals. Different strengths of sclerosant are used for different sized veins. Between treatments a compression stocking is worn.

Advantages of UGFS: outpatient treatment; avoids an operation; patient continues normal daily routine between treatments.

Disadvantages of UGFS: repeated treatments are necessary; long term results not available.

Complications of UGFS: bruising; inflammation; phlebitis; occasional skin staining. Deep vein thrombosis is a rare complication.

Operative Treatment

Minimally Invasive Vein Surgery: MIVS is a new technique which avoids the groin incision in LSV surgery and the knee incision in SSV surgery. This significantly reduces postoperative pain and allows early return to normal activity. The LSV is identified at the knee level using ultrasound, a small incision (5-10mm) is made to access the vein and a special instrument known as a PIN stripper is inserted and retrieved through a small incision (3-5mm) in the groin. The whole length of the vein is removed through these incisions. The lower LSV can also be removed using the same incision.

Endovenous Laser Therapy (EVLA):

Using the latest radial fibre technology EVLA is the current gold standard treatment for varicose veins and I have treated over 5000 veins with this technique.

The vein to be treated is punctured with a needle under ultrasound control. The laser fibre is positioned just below the junction with the deep veins and the whole length of the vein is sealed using laser energy.

Prominent vein branches coming off the main vein are removed at the same time using a number of small (2mm) incisions known as avulsions or phlebectomies. Wounds are closed with tissue glue (no stitches are required) and a compression stocking is applied to the leg and over this is placed a compression bandage. The bandage stays in place for two days. The stocking is worn for two weeks.

Most laser procedures are performed under local anaesthetic with you awake, but a general anaesthetic can be used if you prefer. The local anaesthetic technique involves infusing local around the nerve at the top of your thigh to give a numb leg. Further local anaesthetic is used for the avulsions.

After the operation you return to the ward until the numbness wears off and you can walk out of the hospital and go home. The procedure is performed as a Day Case and you will need someone to drive you home.

Advantages: minimal postoperative pain; almost immediate return to normal activities; manual incisions; very good cosmetic result; low risk of complications; low rates of recurrence.

Disadvantages: not all veins are suitable.

Complications: tenderness along the line of the treated vein; occasional phlebitis; haematomas; patches of numbness; recurrence; scars; threadveins. Uncommon complications: deep vein thrombosis/ pulmonary embolism; skin burns; nerve damage. Damage to femoral vein /artery (reported but not in my hands).

VNUS Closure: Similar to Endovenous Laser described above. A special catheter and wire is passed up the vein to just before its junction with the femoral vein. The wire is connected to an ultra-high radiofrequency generator which heats the end of the wire to a very high temperature. This causes the vein to collapse and fibrose as the wire is removed.

Complications: same as Endovenous Laser

ClariVein™:

One of the latest minimally invasive techniques from the USA. The technique is performed as a local anaesthetic, walk-in/walk-out procedure. Similar to Endovenous Laser the vein is punctured under ultrasound control and the ClariVein™ catheter positioned below the junction with the deep veins. The ClariVein™ technique uses a combination of mechanical disruption to the inner lining of the vein and chemical injury in the form of sclerosant solution infused through the catheter. The combination of these two methods is a very effective and pain-free way of sealing the vein.

Advantages of ClariVein™: less post-operative pain; requires less volume of local anaesthetic than other techniques; performed as a walk-in/walk-out procedure in the outpatient clinic; initial reports suggest less post-operative discomfort over the treated vein.

Disadvantages of ClariVein™: this is a new technique and therefore results regarding long-term efficacy are not available. However, 5 year results are comparable to EVLA and VNUS Closure. Complications are similar to EVLA and VNUS Closure without the risk of thermal injury. As with all techniques of this type there is a small risk of deep vein thrombosis and wound infection.

ClariVein™ is not currently being covered by insurance companies, although Endovenous Laser and VNUS Closure are covered.

Helpful information regarding your procedure

1. *Please ensure you have someone to drive you home after your procedure, as you will not be able to drive yourself home. Taking a taxi is acceptable.*
2. *Please wear loose, comfortable clothing e.g. jogging bottoms or a long skirt.*
3. *Please wear comfortable footwear that is easy to get on, such as flip-flops, low heeled sandals, mules or slippers.*
4. *Please note that long-haul flights (over four hours) are not recommended for six weeks following ClariVein™.*
5. *An outpatient appointment will be sent to you from the Hospital for about six weeks after your procedure, but if you have any queries at all following your treatment, please telephone Mr Gaunt's office on 01223 305858.*
6. *Reticular, thread veins and spider veins will require separate treatment, injection microsclerotherapy, in the Outpatient Clinic after all the varicose veins have been treated.*

The practice of medicine and surgery is not an exact science. All of the treatments described in this leaflet are complex and require discussion with your specialist. Reputable practitioners cannot guarantee results either explicit or implied.

I have been given the opportunity to discuss the techniques and consider the advantages, risks and complications of each treatment, including no treatment, and how these complications would impact on all aspects of my lifestyle if they were to occur.

Patient's signature.....

PRINT NAME.....

DATE.....

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