

## **CLARIVEIN™**

**Mr Michael E. Gaunt MA (Cantab) MD (Dist) FRCS, Consultant Vascular Surgeon**

### **What is the ClariVein™ Technique?**

ClariVein™ is one of the latest minimally invasive techniques for the treatment of varicose veins. This technique is even less invasive than the laser and VNUS Closure techniques, requiring much less local anaesthetic infiltration.

ClariVein™ uses a combination of mechanical disruption to the inner lining of the vein and chemical injury using sclerosant solution. The combination of these two methods is a very efficient way of sealing the vein.

### **What does the technique involve?**

ClariVein™ is performed with the patient awake under local anaesthetic and is performed in the treatment room of the hospital as a walk-in / walk-out procedure. An injection of local anaesthetic is made above the knee to numb the lower leg.

The leg is painted with the standard surgical skin prep and sterile drapes are supplied. Ultrasound is used to visualize the vein and a suitable area for insertion of the ClariVein™ catheter is identified. A small amount of local anaesthetic is infiltrated into that area.

The ClariVein™ catheter is inserted into the vein and positioned at the top of the vein. The device is activated and the tip rotates, agitating the lining of the vein. At the same time sclerosant solution is infused through the end of the catheter as the catheter is slowly withdrawn down the vein.

The combination of the rotating tip and the sclerosant solution mechanically and chemically disrupts the lining of the vein and causes it to seal.

Reticular, thread veins and spider veins will require separate treatment with a course of injection microsclerotherapy in the outpatient clinic after all the varicose veins have been treated.

### **What will I feel during the procedure?**

There will be a needle prick as the local anaesthetic is infiltrated at the start of the procedure. When the tip of the device starts to rotate, patients describe a vibrating and tickling sensation. Occasionally the tip of the device may catch on the wall of the vein which causes mild discomfort. At this point, the catheter will be repositioned away from that area and the procedure will be resumed.

Once the whole length of the vein has been treated, the puncture site where the needle was inserted is closed with a small amount of tissue glue – no stitches are required.

Mr Gaunt and his nurse will apply a full leg compression stocking to the leg and over this, a compression bandage, and the procedure is complete.

You will then go for a 10-15-minute walk to ensure good blood flow in the deep veins. After a further 15 minutes sitting in the waiting room, you can go home.

The bandages are left in place for three days and the stocking for three weeks. However, if the bandages become loose or cause irritation, you can remove them before the three days.

Similarly, stockings can be removed for a bath or shower and then replaced.

### **What are the advantages of ClariVein™?**

There is significantly less discomfort during the procedure than other minimally invasive techniques and the technique requires considerably less volume of local anaesthetic to be infiltrated.

ClariVein™ avoids the use of thermal energy to seal the vein, so there is less chance of injury to adjacent sensory nerves. Initial reports suggest less post-operative discomfort over the treated vein.

ClariVein™ is performed in the outpatient treatment room and involves no hospital stay.

### **What are the disadvantages of ClariVein™?**

This is a new technique and results regarding long-term efficacy are not available. However, 5 year results are comparable to Endovenous Laser and VNUS Closure techniques.

As with all techniques of this type, there is a small risk of deep vein thrombosis and wound infection.

**Complications:** tenderness along the line of the treated vein; occasional phlebitis; haematoma; patches of numbness; recurrence; scars; thread veins; skin staining.

**Uncommon complications:** Deep Vein Thrombosis (DVT) / Pulmonary Embolism (PE); nerve damage; damage to femoral vein / artery (reported but not in my hands).

ClariVein™ is not currently being covered by medical insurance companies.

### **Will I need further treatment?**

Prominent varicose vein branches can be removed at the same time as the ClariVein™ procedure or this can be performed at a later date if required. Experience suggests that 50% of these veins will regress after the ClariVein™ procedure alone. However, 50% of patients require further local anaesthetic surgery in the form of avulsions (also known as phlebectomies).

### **What are Avulsions/Phlebectomies?**

Avulsions/Phlebectomies are used to remove prominent vein branches that come off the main vein treated by the ClariVein™. A number of small (2mm) incisions are made over the branches and the veins removed. This is performed under local anaesthetic but you may experience a pulling sensation as the veins are removed. The incisions are closed with tissue glue: once again, no stitches are required.

Avulsions/Phlebectomies can be performed at the same time as the ClariVein™ procedure or performed at a later date if required. Mr Gaunt will discuss your preference at the time of your consultation.

### **Helpful information regarding your procedure**

1. *Please ensure you have someone to drive you home after your ClariVein™ 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 ClariVein™ 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 confirm that I have read this leaflet and understand the issues discussed. I understand that this leaflet is a guide and cannot cover all possible eventualities.*

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

Patient's signature.....

PRINT NAME.....

DATE.....

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