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## **VARICOSE VEIN TREATMENTS- A GUIDE** **(Including Ultrasound Guided Foam Sclerotherapy UGFS & Laser Treatments)**

### **What are varicose veins?**

Dilated blood vessels can appear on any surface of the body but are particularly common on the legs. The smaller veins may be just visible as short, seemingly unconnected lines each about the size of a large hair or they may resemble a spider web or tree with branches. These “spider veins (also called telangiectasiae) can be seen on the face and can often occur on the legs in association with larger dilated blood vessels. These can be treated easily by laser but it is important to treat and associated feeder veins first. **Varicose veins** are usually defined as the larger veins that really bulge above the skin surface. Bad varicose veins are often found in association with a reverse blood flow problem – a leaky valve inside the vein making the veins under the skin blow up from the back pressure of the deeper veins.

### **Why have I developed abnormal veins?**

The true cause is hard to determine but the development of varicose veins has perhaps many different factors. The single most important thing is an inborn predisposition. Other factors may be long periods of standing, diet, obesity and smoking. Spider veins may also occur after trauma to a certain area of the body, when they occur on the face spider veins may be related to chronic sun exposure, alcohol or exposure to extremes of temperature.

Varicose veins seem to develop slowly and progressively as a degenerative disease of the wall of the vein. As the disease progresses the valves in the veins become faulty leading to increase in pressure to the surface vein which then enlarges. It is important during treatment that the faulty valves are identified for specific treatment. Around 25% of people will have varicose veins and more so as we age so in fact 50% of people over 50 years have some degree of varicose veins. Varicose veins occur in both men and women but more frequently in women. The female hormones may play a role in their development and certainly puberty and pregnancy seem to bring them on.

### **Can Vein Problems Be Prevented?**

Wearing specialised venous support stockings may prevent some dilated blood vessels from developing in some people. This may be important during pregnancy. A good diet rich in antioxidants, maintaining a normal weight, regular exercise, avoiding constipation, heavy lifting avoiding wearing high-heeled shoes may also be helpful.

### **What symptoms can I attribute to my varicose veins?**

Symptoms include heaviness, aching, burning, stinging, throbbing, swelling and leg cramps and leg restlessness. The presence of a skin rash on the leg, small blue veins on the feet, lower leg skin discoloration, pigmentation and scarring are often due to larger veins higher up in the leg, sometimes hidden from view. If untreated varicose veins they can predispose to leg ulcers.

## Do I need treatment?

Any abnormal dilated blood vessels do carry blood but they are not very efficient and are often not necessary to the circulatory system, badly functioning varicose veins need to be removed. The body will have already established alternative routes for the blood to travel back more efficiently to the heart; treatment actually improves the venous circulation. Many people wish to have their veins treated to alleviate their symptoms above, but also they find them ugly, their self image is harmed and this limits their lifestyle choices in exposing their flesh during sports activities or indeed fashion choices. Many clients report an increase in self esteem and an ability to wear shorts or go swimming having completed treatment – large changes to benefit their lifestyle. The larger veins can certainly create physical symptoms listed above and good relief after treatment confirms the medical necessity of varicose vein removal. Prevention of possible deep vein thrombosis and prevention and the treatment of leg ulcers are also worthy reasons for having treatment also.

## What is the best way I can treat my varicose vein?

Removal of the veins can be done by:

- Surgical excision/stripping
- Injections of foam sclerosant.
- Laser treatment from inside the vein

Historically treatment was by surgical removal however the new techniques such as offered by Transform Clinic have advantages such that surgery for varicose veins appears to be now becoming obsolete.

**Foam sclerotherapy** is the procedure now commonly used to treat abnormal veins. It involves the injection of a solution or foam into the unwanted abnormal vein. The foam is specifically manufactured for sclerotherapy. It is rapidly diluted after contact with the varicose vein wall and so does not cause any harm as it circulates through the body and is eventually washed out. The medicine irritates the lining of the veins causing it to swell and stick closed and the veins fade from view over periods of weeks. Sclerotherapy has been performed since the 1930's. It can be used for surface veins by direct injection or for deeper veins by injecting under guidance of an ultrasound picture. Advances in ultrasonic imaging technology have significantly enhanced the accuracy and success in the treatment of the largest of varicose veins.

Prior to the procedure, an ultrasound scan of your legs is performed; this examination is called a mapping scan. This will familiarize the doctor with your specific vein problem and clarify and difficult areas if necessary. Following the procedure you are required to walk immediately and will wear a graduated venous compression stocking for 2 weeks. Don't worry they are quite comfortable and can come in black color also. You must walk for at least 30 minutes on each day that the stocking is on. It is essential that you walk for 30 minutes immediately after the procedure and it is good idea to walk for 30 minutes several time per day for the first 3 days following treatment or whenever the leg aches, you must not drive your car after a treatment until you have completed your 30 min walk.

It is usual for there to be some tenderness, lumpiness, hardness and bruising/discoloration along the line of the treated vein, If there are specific hard lumps close to the skin surface it may be necessary to have these released by the nurse. This is usually done in the first 6 weeks. Any deeper lumps that still remain will dissolve over time.

**Endovenous Laser Ablation** is a new method of treating major veins. This technique is also performed under ultrasound guidance and requires only local anesthetic By threading a tiny fibre with the aid of ultrasound image guidance into the unwanted vein and directing laser energy directly down the unwanted vein it can be destroyed. Although it is more involved and is slightly more expensive, this technique has advantages of efficiency with a single treatment when treating *long large straight veins*. It can be preformed on its own but for best results it is often with sclerotherapy on the veins lower in the legs. Laser treatments such as these have been developed by phlebologists and have gained popularity due to its simplicity and more effectiveness with one single treatment session.

Radiofrequency Endovenous Ablation is a very similar technique as the laser treatment, just delivering not a laser but radiofrequency energy to the veins wall by a small guide wire. It has reported similar success.

**Surgery:** Tying veins off ( ligation) pulling them out ( stripping) or removing by small punctures (stab avulsions) are surgical procedures for treating leg veins and generally have more risks and greater recovery times than equivalent treatments with sclerotherapy. With the newer techniques many phlebologist feel these surgical operations will become obsolete, however good surgery form a food surgeon is an option worthy of consideration.

### **Will I need ongoing treatment?**

The veins treated adequately by sclerotherapy will **not** recur. However, the underlying condition will persist and therefore new vessels often parallel to treated veins **may** appear with time. The treatments are guaranteed to close the large veins and check scans and further treatments sessions are offered as part of the initial cost of treatment. But think of your treatment as a process of more than just on visit. Your first review appointment will usually be a 2 week to check your progress. A further review appointment, including a scan, will usually be after 3 months. If you have more than one deep vein that needs treatment, or very large veins, you are more likely to need a follow- up treatment by sclerotherapy. The laser endovenous ablation treatment is very successful with only one treatment even on the largest of veins. Subsequent treatment, if necessary, is usually preformed at the three months follow up visit. Once the doctor feels the treatment Phase is complete then a further 2 scans over the following year are recommended to ensure complete removal of the treated veins. Your initial fees should include the cost of follow up scan and up to 3 treatments if required for closure of the large veins. However be warned that your innate tendency to develop varicose veins is not treated as this stays with you: new veins may open up eventually necessitating further treatment years later. A yearly check up is recommended to detect the development of new veins, which can then be treated easily.

### **What can go wrong?**

Like any procedure there are some risks so please beware of the risks. It is important that you expect some effects of the treatment, please read this and express any particular worries you have prior to any treatment, we can explain your own risks further:

- \*Bruises at injection sites. These will disappear in a few weeks and are probably related to the fragility of blood walls. Blood trapped in the treatment veins may result in the vein becoming more noticeable in the first few weeks following treatment. This is an early sign that the treatment has been successful.
- \*Aching in the leg for the first few days after treatment. This is more likely if you have varicose veins treated. It is usually relieved by walking. You may also take Panadol to relieve this aching.
- \*Phlebitis: This is inflammation of the treated veins, which may also be associated with tender lumps along the line of the treated veins. These lumps are normal and are due to the reaction of the sclerosant on the blood vessel wall and the trapping of old blood. It is more likely if you have varicose veins treated, when it occurs to a large or prolonged extent, it may be treated by draining the blood out by small needle punctures. Other treatments for this may included anti-inflammatory medications, heat packs, massage with and anti-inflammatory cream, compression stocking and regular walking. The lumps will always disappear with time.
- \*Pigmentation: This is the appearance of brown marks on the skin after treatment corresponding to where the veins were treated. It is considered to be a normal consequence of having varicose veins treated. Some studies showing an incidence as high as 16% at 6 months and 5% at 2 years. These pigmented areas are mainly composed of haemosiderin (a form of iron stored in the blood) and result when blood escapes from treated vein. Pigmentation is more likely to occur in patients who have larger veins treated or those patients who have a lot of bruising. In most cases they disappear completely within a year. Persistent pigmentation may respond to laser treatment
- \*Matting: This is the development of networks of fine red blood vessels near the sites of the injection and is more likely on the thighs. Most resolve with injection treatment and a few persist. Matting is more common in patients with extensive surface veins, deep vein problems, patients who have a family history of surface veins and in obese patients who have poor muscle tone.

\*Ulcers: Very occasionally there is the formation of small, painful ulcers at treatment sites with 2 weeks of injection. These may occur because the solution has escaped into the surrounding skin or sometimes because there is an abnormal connection between the small veins that are injected and the nearby arteries, or by inadvertent injection of small arterioles. Ulcers are more common in patients who smoke cigarettes. They heal slowly and may leave small pale scar. If the ulcer becomes infected an antibiotic is prescribed.

\*Allergic Reactions: Although on rare occasions (1 per 5,000 treatments) such reactions may be serious, they can be treated by immediate injections of adrenaline.

Less serious reactions are treated with antihistamines. Minor rashes require no specific treatment but you should inform your phlebologist if they occur.

\*Deep Vein Thrombosis (clot in a deep vein) this can occur but is uncommon if compression and regular daily walking are adhered to. Symptoms would be pain, causing a limp on walking, tender swollen leg.

\*Intra-Arterial Injection. This is an extremely uncommon complication that may result in muscle and skin damage.

\*Paraesthesia. As many of the veins we treat are close to nerves in the lower limb, the nerves may be irritated by the injection process or inflammation that ensues following a sclerosant injection. The irritation usually takes the form of numbness and may last several months before finally resolving completely without any treatment required.

\*Visual Disturbance (Visual Scotoma) can occur during or immediately after sclerotherapy and may be associated with headache. It settles with simple analgesia and is probably more common in people who suffer from Migraine.

There are no known long term side effects of the sclerotherapy pharmacological agents, the products are all biodegradable with a half life of a few hours.

### **How much does it cost?**

Sclerotherapy and endovenous ablation treatment of varicose veins is much more cost effective than the surgery performed in the past, costs will be quoted at the time of your initial assessment and consultation. Or ask for a price explanation sheet, our cost usually covers for a complete course of treatments to cap your budget from any hidden extras to ensure the procedure has been through. Thread vein treatments can come from \$450.00 per session.

### **Will my Insurance Company pay for varicose vein removal?**

Please check your policy for details, prior approval should be sought from your health care provider before embarking on treatment, Bear in mind that cosmetic enhancements are not provided from health insurers and for health improvement there has to be a vein problem that can demonstrate some degree of medical necessity for its removal. Discuss this with your family doctor or the phlebologist at time of the initial consultation.

The smaller thread veins are often of only cosmetic concern, there is little medical necessity to remove them and **treatment of thread veins is not covered by insurance companies**. Ask at the time of consultation about any ongoing costs to remove any remaining thread veins following varicose vein treatment.

### **Where do I go from here?**

This information is provided for your perusal but not replace a full consultation with an experienced phlebologist. We recommend you make an appointment so everything can be explained to your satisfaction prior to any decision to have treatment.