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## **FOAM SCLEROTHERAPY**

### **WHAT IS FOAM SCLEROTHERAPY?**

Normally STD is injected as a solution directly into the vein to be treated. Foam sclerotherapy involves making small volumes of the solution into foam by rapid mixing and agitation with a small volume of air.

This can then be used to treat some of the larger underlying abnormal veins which would not normally be treated with conventional sclerotherapy.

This is performed under ultrasound control. The foam solution causes intense spasm of the vein and a greater volume can be injected without using too much of the STD solution.

### **ARE MY VEINS SUITABLE FOR FOAM INJECTION SCLEROTHERAPY?**

Varicose veins involving isolated veins in the leg or involving the long saphenous vein or short saphenous vein are suitable for this form of treatment (most varicose veins).

If you have very extensive and very large varicose veins then you may do better with surgery rather than sclerotherapy. If you have any underlying blood clotting tendency it may not be advisable to have sclerotherapy.

### **WHAT DOES THE PROCEDURE INVOLVE?**

Depending on the number of varicose veins you have you may need 2 or 3 sessions of treatment, and occasionally more than this.

The main surface vein to be treated will be marked on your leg initially using ultrasound scanning. Local anaesthetic will then be injected into a small area of skin, usually in the lower thigh or mid calf and a needle will be placed into the vein, again using ultrasound scanning.

This will be flushed with a salt solution containing heparin, a blood thinning agent, just to keep the needle open. Two or 3 smaller needles (called butterfly needles) will then be inserted into the visible varicose veins in the leg and these will be similarly flushed.

Your leg will then be elevated above the couch and the foam solution will be injected in small volumes at a time into each of the needles. Whilst this is being done you will be asked to bend your ankle up and down in order to increase the blood flow in your deep veins.

You may experience some slight stinging as the foam is injected but it is usually painless. The passage of the foam in the vein will be monitored by ultrasound scanning and the foam injections into each needle will be repeated 2 or 3 times.

Once enough foam has been injected the needles will be removed, pieces of sponge, gauze or bubblewrap (compression pads) will be applied to your leg followed by a bandage in order to compress the treated veins.

An elastic compression stocking will then be put on your leg, including the thigh with a waist attachment. This will feel tight but should not be so tight as to make your foot discoloured or painful.

## **WHAT HAPPENS AFTER TREATMENT?**

You should keep the compression pads, bandage, and stocking on continuously for 5 days. After this you may remove the pads and bandage and then replace the stocking which should be worn for a further 7 days.

During this 7 day period you may remove the stocking to shower and you may remove it at night if you wish. If you find the stocking comfortable and wish to wear it for longer this may be helpful. Please bring your stocking back with you to your next visit as it may be possible to reuse it if you have further injections.

You should do plenty of walking and may generally do most normal activities without any problem. If in doubt ask your doctor.

You can do normal activity after the treatment and do not need to avoid anything in particular. However you should not drive on the day the procedure is performed just in case you experience any visual disturbances (see below).

## **WILL I NEED FURTHER TREATMENT?**

It is unlikely that all your varicose veins will improve after one set of injections and you may need several treatments. You will be seen again in a few weeks time and further injections can be performed at that stage. Some of the untreated veins may have shrunk at that stage.

## **WHAT ARE THE COMPLICATIONS?**

**Superficial thrombophlebitis** Most people will experience some hard lumps which form in the treated veins. These are areas of blood clotting in the treated veins. This is nothing to worry about but may be associated with inflammation and discomfort. If this occurs anti-inflammatory pain killers may help. These lumps will eventually subside and disappear but this may take several weeks or months. This process may be hastened by your doctor inserting a needle into the lumps and aspirating the clots which liquefy again after a few weeks.

**Brown pigmentation of the skin** This can occur following superficial thrombophlebitis described above and can be permanent. However it will usually fade for a period of several months and may disappear completely.

**Deep venous thrombosis** If the solution passes into the deep veins there is a risk of thrombosis of the deep veins. This may be very minor with no symptoms or a major blood clot with a risk of a pulmonary embolus (passage of a blood clot to the lungs).

It is for this reason that only small volumes of the foam are injected at a time and the ankle is exercised in order to maintain good flow in the deep veins. Surgery also carries a risk of deep vein thrombosis.

**Recurrent and residual varicose veins** If you have any remaining varicose veins it is usually possible to inject these at your next visit. However if you have a lot of very small varicose veins it may not be possible to eradicate all of these. It is possible that the treated vein could reopen.

At present the risk of this is not known and only long term follow up data will provide this information. If this does happen it would be possible to treat the vein again, either by further injection or by surgery.

**Skin ulceration** If the solution does not go into the vein but goes into the surrounding tissues it can cause a small ulcer of the skin. This will heal up but this may take several weeks and will leave a scar.

**Allergic reaction** Allergy to the solution used is rare but can occur. If you have any allergies you should inform your doctor.

**Visual disturbance** There are reports of temporary visual disturbance with foam injections. It is not certain why this occurs but it is more common in people who suffer from migraine.