

## What is Foam Sclerotherapy?

Foam sclerotherapy is a treatment for varicose veins which involves injecting 'Foam' directly into the vein. The foam is made by mixing a solution called Fibroven with air to make a white foam.



The National Institute of Clinical Excellence (NICE) has approved Foam Sclerotherapy for use in the NHS. Foam Sclerotherapy has been widely used in many centres and is recognised as an appropriate method of managing varicose veins. The safety and efficacy of this treatment has been established by extensive research.

## Are my veins suitable for Foam Injection Sclerotherapy?

This technique can be used to manage large varicose veins. The method can be used alone or in conjunction with radiofrequency or laser ablation methods. Some patients have undergone many previous treatments for varicose veins but have not achieved a satisfactory result. Skilled ultrasound guided injection of the remaining veins can lead to an excellent outcome in such cases.

Very large, extensive varices may be treated by surgery. Small varicose veins less than 3mm in diameter and thread veins are best treated by microsclerotherapy.

## 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 may be injected into a small area of skin, usually in the thigh or mid calf and a needle will be placed into the vein, again using ultrasound scanning.

This will be flushed to keep the needle open. Other smaller needles may be inserted into the varicose veins in the leg usually no more than 5 or 6 needles or injections are required at each session. The injections are small and not very uncomfortable.

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 - again it is unlikely you will experience any discomfort but if you do please let us know. A maximum amount of foam is limited to about 14mls per session for safety reasons. That is why we can't always treat one or both legs in one session. Your surgeon will advise you of this.

After treatment you will be asked to exercise your calf muscle by pumping your ankle and foot up and down for about 30 seconds. Then a firm bandage may be wrapped around the leg, followed by a firm compression stocking. It is thought these are essential to better outcomes and reduced complications.

## What happens after treatment?

You should keep the bandage, and stocking on continuously **for 2 days**.

After this you remove the bandage and then replace the stocking **ONLY** which should be worn for a **further 7 days**. There are different variations of this and your surgeon will explain these at the end of the procedure.

During this 7 day period you may remove the stocking to have a 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. Avoid very strenuous exercise, weight lifting, excessive running etc until 10 days after your treatment.

Otherwise 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).

## Effects of treatment

Most patients are able to leave the clinic immediately after treatment. A few people experience a cough or tightness in the chest. Migraine sufferers sometimes experience the visual disturbance that occurs before a migraine attack. All of these symptoms usually resolve within 60 mins.

## After the treatment

Immediately after the injection treatment patients are able to walk normally and continue their work. No special exercise need be taken. It is not necessary to rest. We suggest that long haul air travel (over 4 hours) is avoided whilst the bandages are in place, but other journeys can be continued as normal. Once the bandages have been removed long haul air travel is acceptable providing elastic compression stockings are worn.

We also suggest that sun exposure is avoided for 6 weeks following the procedure as this can increase the risk of pigmentation. Use of a sun block is advised during this time.

Vigorous exercise should be avoided for the first week. The leg may ache initially and this continues for 2-4 weeks, but is not troublesome. Some patients need to take simple pain killers for this. Often the injected veins develop into hard and sometimes tender lumps. This is normal and because the blood in the vein clots. You may be reviewed 2 weeks following the procedure when these lumps can be aspirated to help with both the lumpiness and tenderness.

## Will I need further treatment?

We like to check that the treatment has worked and treat any remaining varicose veins usually one or two weeks following the main treatment. You will be given an appointment for this. We normally treat one leg at a time. Therefore if varicose veins affect both legs further treatment to the other leg is given at the second visit followed by a check two weeks later. For one leg, two sessions are needed, and for both legs three sessions.

## 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. We suggest IBUPROFEN 200mgs three times a day if you have no asthma, kidney problems or history of stomach ulcers. You alternatively can try IBUPROFEN gel applied to the affected area. Both these can be obtained over the counter from your pharmacist

**Brown pigmentation of the skin:** This can occur following superficial thrombophlebitis described above. It is very common after this treatment. In most cases it fades over 12-16 weeks. It can occasionally take much longer to fade even up to a year after treatment. You need to be aware of this if you have issues with the appearance of the veins

**Deep venous thrombosis:** If the solution passes into the deep veins there is a risk of thrombosis of the deep veins 1:100 to 1:200 risk. 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. The risk of new or recurrent veins for all vein treatment types is about 1:5 (20%)

**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:** Serious allergic reaction to the solution used is very rare (about 1:10,000) If you have any allergies you should inform your doctor.

**Visual disturbance and headache:** There are reports of temporary visual disturbance with foam injections it is more common in people who suffer from migraine.

**Chest pain:** Can occur in a small number of patients usually within an hour of treatment. It will settle within a few hours