Foam Sclerotherapy for Varicose Veins

What are varicose veins?
Veins are the blood vessels that carry blood back to the heart. Varicose veins are abnormally enlarged and tortuous veins that are visible just below the surface of the skin. Smaller veins in the skin itself are sometimes called "thread veins" or "spider veins". Although these may be unsightly they are not the same as varicose veins and rarely cause discomfort or complications.

What causes varicose veins?
Varicose veins are due to weaknesses in the wall of superficial veins leading to stretching. This causes failure of the one-way valves inside the veins. These valves normally only allow the blood to flow up the leg towards the heart. If the valves leak, then blood can flow back the wrong way on standing. This reverse flow causes increased pressure on the veins, which swell and become varicose. The increased pressure can cause aching and complications such as eczema, discolouration and leg ulceration.

Varicose veins often run in the family and as you get older they are more likely to occur. They may also be caused by standing occupations, pregnancy or weight gain which increase pressure on the leg veins.

How common are varicose veins?
Approximately half the population has some form of venous disease, and varicose veins affect up to 30% of all adults.

How does foam sclerotherapy work?
Foaming may be used instead of surgery to treat certain cases of varicose veins, provided that they are not too large or extensive. The aim is to cause inflammation of the vein walls so that they empty of blood, shrivel up and become less visible and uncomfortable. This process usually takes several weeks and the treated area often looks worse immediately after treatment, before it begins to look better. Foam sclerotherapy is performed lying on a couch in the treatment room. A small amount of local anaesthetic is injected into the skin, and once numbed, a needle is placed into the main vein feeding the varicose veins. The leg is then raised to empty all the veins, and the foam injected into the vein. The foam rapidly spreads along the vein and is followed using a scanning machine. When it reaches the upper end of the vein being treated (in the groin or behind the knee) firm pressure is applied to the vein to flatten it. More foam is then massaged back into the varicose veins. The leg is then bandaged. Many patients require only one treatment, although up to a third may need two or three.

Is foam sclerotherapy painful?
Some patients report a bubbling sensation in the leg, but the injections themselves are not painful.

How successful is foam sclerotherapy?
Clinical studies have been published which suggest that early results may be close to those of surgery. There is less information on long-term results, but if the veins return they can be injected again. The main advantages of foaming are that it avoids an operation, and return to work is quicker. The main disadvantages are that it involves more clinic visits, and a good cosmetic result may take longer to achieve.

What should I do before the procedure?
On the treatment day please do not apply any moisturiser to your legs. Ensure that you wear loose trousers or a skirt and loose shoes or sandals so that there is room for the dressings. Bring someone with you to drive you home after the treatment.

What should I do after the procedure?
On completion of the injections, a compression bandage is applied. This must be kept in place for five days. The bandage can then be removed. A supplied specially measured stocking should then be put on and worn during the day and removed at night for the next two weeks. You will be encouraged to mobilise straight after the procedure but also to rest with the leg elevated. You will be encouraged to rapidly return to normal activities, however swimming, vigorous exercise and hot baths should be avoided for two to three weeks as this increases the risk of blood flow returning to the treated veins. Return to work is variable, depending on your job. Some people are comfortable to go back the following day, whilst others may not return until the bandages are removed. Most people are comfortable driving short distances by the time their bandages are removed.

What should I expect after the procedure?
Some bruising is normal along the site of the treated vein. This usually disappears in a few weeks, but may last longer and can sometimes be permanent. Any discomfort at the injection site will settle in a few days. You may notice lumpiness along the treated veins which may take up to six months to completely resolve. In virtually all patients the varicose veins look darker immediately after treatment.

Are there any complications following this procedure?
About two thirds of patients notice a light brown discolouration of the skin around the veins after treatment. In most cases this fades over a few months but in some cases may last longer. Sometimes, the pigmentation can be permanent.

Approximately 2 - 5% of patients experience transient side effects including chest tightness, dry cough, headache, tingling, or visual disturbances following the procedure.

As with surgery, there is a risk of deep vein thrombosis (DVT), although this is rare. You will be supplied with compression stockings and encouraged to mobilize to prevent this. Occasionally a treated vein becomes inflamed and tender. This thrombophlebitis usually settles with compression and anti-inflammatory painkillers in about two weeks.

Some people may develop new “spider veins” close to the sites of treatment. These can be treated by micro injection techniques if necessary. As with surgery, there is a risk of recurrence of the varicose veins as you are clearly disposed to them. The long term risk of recurrence may be higher than with surgery, but further injections can be performed. The taking of regular exercise, the avoidance of becoming overweight, and the wearing of light support tights or stockings will all help prevent you being troubled by varicose veins in the future.

Your health professionals will make every effort to make your treatment as safe as possible. However, complications can happen with any medical treatment.