



Sclerotherapy for the treatment of thread veins on the leg

What are Thread veins?

They are tiny blood vessels that seem to suddenly appear, out of the blue, on the nose, cheeks and legs, and are labelled as thread veins, spider veins or broken capillaries. Whether you call them thread veins, spider veins or whatever, they are basically the same condition - enlarged tiny blood vessels, easily visible through the skin. They are part of the body's vascular system, made up of arteries, veins and capillaries. Arteries carry blood from the heart, veins carry blood back to the heart and capillaries are tiny blood vessels which link the smaller arteries to small veins.

Capillaries are tiny - about 8 to 10 microns in diameter (a micron is 0.001 millimetre), just large enough for red blood cells to travel along in single file. The wall of each capillary is only one cell thick, and is therefore quite fragile.

Unlike other larger blood vessels, the wall of the capillary doesn't contain muscle fibres or collagen, and this adds further to its fragility.

Thread veins appear most commonly on the legs, and in particular around the ankles and on the feet. Other sites affected are the nose and cheeks, whilst some sufferers develop them on the chest or abdomen, depending on the cause of their vascular problem.

Causes

Thread veins on the legs are usually the result of varicose veins and sadly, often appear as early as the mid twenties, although the varicose veins themselves may not be obvious. An estimated 40% of women in the UK will have obvious varicose veins by the time they reach their fifties, rising to 72% in their seventies. Varicose veins, sometimes called varicosities, appear as blue, swollen, tortuous vessels over the calf muscles, often extending upwards along the inner aspect of the thighs towards the groin. These veins often appear as a result of weaknesses in valves within the veins, and in many people the weakness is an inherited.

Another common cause of varicosities and thread veins in women, is pregnancy. As a baby grows within the pregnant uterus, the heavy womb presses down on the veins from the legs as they enter the pelvis, producing a back pressure and resultant distension of weakened veins. This back pressure is greater in the lower part of the leg, due to the column of blood in the veins and the effect of gravity. For this reason, standing for long periods of time, being overweight and lack of exercise predisposes people to varicose and thread veins. Any blockage in the larger veins, as can result from inflammation in the veins (phlebitis) or blood clots (thrombosis) will increase the likelihood of developing thread veins.

More serious causes of varicosities and thread veins include severe liver disease, and tumours inside the pelvis and abdomen which can block the upward drainage of blood from the leg veins.

Thread veins are often labelled as spider veins because, when observed closely, they appear to radiate outwards, resembling thin spiders' legs from a central point. This typical radial pattern is also similar to a spiders web! The smaller thread veins are usually red, whereas the larger ones are blue or purple indicating a slower blood flow.

Treatment

Sclerotherapy is a popular method for eliminating spider veins that utilizes various solutions, called sclerosing agents, which are injected into the veins. Various sclerosing agents are available in the UK. Your practitioner will discuss the various agents with you and chose which one is best suited to your needs.

The majority of persons who have sclerotherapy performed note improvement in the appearance of the spider veins after 2 treatments. Most patients require 6 treatments for complete clearing of the veins. Approximately 10% of patients who undergo sclerotherapy will have veins that do not totally disappear after six treatments. In very rare instances the patient's condition may become worse after sclerotherapy treatment. The best results will be obtained when the patient is conscientious about wearing the suggested support hose for three days following the injections.

How many treatments will I need?

The number of treatments needed to clear or improve the condition differs from patient to patient, depending on the size of the spider veins. One to six or more treatments may be needed; the average is three to four. Individual veins usually require one to three treatments. Because only 3cc of sclerosing solution may be injected per visit, patients with many spider veins may only be able to have 30% - 50% of them treated each visit. Your practitioner will discuss this with you during your consultation appointment. Injections can be performed every 4-6 weeks. Each treatment takes approximately 30 minutes.

What are the most common side effects?

The most common side effects experienced with sclerotherapy treatments include the following:

- **Cramping:** Depending on the type of solution used, you may experience mild cramping along the vein route. This normally lasts 20 minutes but may persist longer in a minority of patients. Slight itching may be noted along the vein route for one hour after treatment and may persist for one or two days in a minority of patients.
- **Transient Hyperpigmentation:** Approximately 10% of patients who undergo sclerotherapy notice discoloration (light brown streaks) after treatment. In almost every patient the veins become darker immediately after the procedure. This darkening usually resolves in 10 to 14 days. In rare instances this darkening of the vein persists for 4 to 12 months. The use of sunscreen on the legs after treatment may help decrease the incidence of these streaks.
- **Erosions/blisters:** Erosions occur in less than 1% of the patients who receive sclerotherapy. This small ulceration at the injection site heals slowly over 1 to 2 months. A blister may form, open, and become ulcerated. The scar that follows should return to a normal color. This occurrence usually represents injection into or near a small artery and is not preventable. However, this is an uncommon side effect.
- **Allergic reactions:** Very rarely a patient may have an allergic reaction to the sclerosing agent used. The risk of an allergic reaction is greater in patients who have a history of allergies.
- **Pain:** The needles used to inject are the same size as an acupuncture needle, therefore patients rarely experience discomfort, however, a few patients experience moderate to severe pain that they describe as cramping after the solution is injected in larger veins. This uncomfortable sensation usually resolves in less than 20 minutes. The veins may be tender to the touch after treatment. This pain is usually temporary, in most cases lasts 1 to 2 days.
- **Bruising:** Bruising may occur at the site of injection. Avoiding aspirin, Ibuprofen, fish oils Vitamin E, and garlic for 7 days prior to receiving the injections can decrease this risk of bruising.

- elangiectatic matting: This refers to the development of new tiny blood vessels in the foot or ankle. It usually resolves in a few days and is lessened by wearing the prescribed support stockings.
- Ankle swelling: Ankle swelling may occur after treatment of blood vessels in the foot or ankle. It usually resolves in a few days and is lessened by wearing the prescribed support stockings.
- Phlebitis: Phlebitis is a very rare complication, seen in approximately 1 out of every 1000 patients treated for varicose veins greater than 3 to 4 mm in diameter. However, varicose veins of this size are not treated by sclerotherapy

What precautions must I take after receiving the injections?

The best results will be obtained if the patient wears support stocking with at least 18mm Hg pressure. Walking and exercise is encouraged after the procedure and there are no restrictions on activity after the procedure.

What are the possible complications if I do not have sclerotherapy performed?

The spider veins will continue to get bigger, and therefore, more painful to treat. However, there are no health risks associated with small spider veins. This is a cosmetic problem.

Are there other types of procedures to treat varicose veins and telangiectasias? What are their side effects?

Lasers can be used to treat spider veins but the current research shows that the laser treatments are more expensive and less effective than sclerotherapy. Ambulatory phlebectomy is a procedure in which certain types of veins can be removed through small surgical incisions. The complications of this procedure are similar to those of sclerotherapy with the addition of small surgical scars that naturally occur with this procedure. Vein stripping and or ligation, performed by a vascular surgeon, may also be used to treat the very large varicose veins. This procedure may require a hospital stay and usually is performed while the patient is under general anesthesia. Risks of vein stripping and / or ligation include permanent nerve paralysis in a small percentage of patients, possible pulmonary emboli, infection, and permanent scarring.

Before treatment

- Do not use bath oils, lotions or creams on your leg for 24 hours before your injections.
- Dress in loose clothing, jogging trousers or skirt and comfortable shoes to accommodate the support hosiery.
- For your first visit you will be supplied with support stockings, please bring your stockings for each of your subsequent treatments, otherwise you can pay for additional stockings.



Sclerotherapy Post Treatment Instructions

- Take a 10 minute walk immediately after treatment.
- Wear your support hosiery day and night for 72 hours, at the end of the 72 hours you may take the stockings off and have a short cool shower or bath. Do not be alarmed that the thread veins look worse, this is normal at this stage.
- Thereafter wear your support stockings during the day for 7 days, you may take them off at night.
- Avoid extremes of temperature for 14 days, ie very hot baths, saunas and sun beds.
- Avoid sun exposure for 4 weeks, pigmentation may take longer to fade.
- Avoid high impact exercise for 2 weeks.
- Avoid leg waxing for 4 weeks.
- Elevate your legs as much as possible for the first 2 weeks.
- Consider wearing support hosiery long term to minimise thread vein recurrence.
- Any problems please contact your practitioner.