

Thread Veins and Facial Telangiectasia

Sclerotherapy and Short Wave Diathermy are two of the most popular treatments in Aesthetic Medicine for Leg Veins and Facial Telangiectasia.

About

Thread Veins

'Spider veins' and are terms used by the public for small, unsightly, superficial veins usually found in clusters on the legs. They are a frequent cosmetic cause for concern amongst women and the demand for treatment is rapidly increasing. The prevalence of thread veins among adults is over 50%.

Spider veins can appear as short and unconnected lines, or they may make patterns resembling a spider's web or a burst. Spider veins are usually red or bluish in colour, and appear mostly on the legs, but can also be found on the face or on other parts of the body.

Apart from their unattractive appearance thread veins are frequently associated with symptoms of aching, burning, itching, throbbing and cramps. These symptoms are often worse at certain times of the menstrual cycle. In addition, the presence of thread veins may indicate an abnormality of the venous system which may require further investigation.

Thread veins can be associated with varicose veins (enlarged and tortuous veins) found most commonly in the superficial venous system of the legs, which are subject to high pressure when standing. Besides cosmetic problems, varicose veins are often painful, especially when standing or walking. Large varicose veins and other significant abnormality of the venous or arterial system can only be treated by specialist doctors

called vascular surgeons.

Why do I get thread veins?

The veins in the legs have to return blood from the feet to the heart against gravity. There are two vein systems in the legs. The **deep system** lies within the muscles in your legs and carries 95% of the blood being returned to the heart. As the muscles in your legs contract these veins are squeezed forcing blood up them. Valves attached to the vein walls close to prevent blood falling back down the veins when the muscles relax.

The second or **superficial system** is in the skin, not supported by muscles. The most important superficial veins in the leg include the Great Saphenous and Small Saphenous.

As blood moves up the deep system it is drawn from the superficial veins into the deep system through the perforating veins that connect the superficial and deep systems.

Where varicose veins develop the valves in the veins are failing to work properly. Blood is allowed to flow back on itself increasing the pressure in the venous system. This is called reflux. The deep veins cannot stretch because they are constrained by the muscular fascia (i.e. a sheet of fibrous tissue). However the superficial veins in the skin do stretch leading to a cycle of deteriorating varicose veins associated with incompetent valves. Reflux may be confirmed by Doppler or Duplex.

When thread veins are associated with underlying varicose veins and venous reflux then it is important that the varicose veins are treated before the thread veins otherwise back flow and high pressure will result in re-appearance of your thread veins. Following a thorough assessment of the vein system in your legs with the right medical equipment **Dr Sotirios Foutsizoglou** will let you know whether microsclerotherapy is the right treatment option for your thread veins.

Risk factors for thread veins in the legs

Any underlying cause that can affect either the integrity of the vein wall and valve, such as congenital disorders, or the drainage of the venous system, such as following a deep vein thrombosis (DVT), can give rise to thread veins and varicose veins.

Important associations and risk factors for the development of thread veins in the legs include:

- Familial (it may run in your family)
- Age (Vein walls and valves are made of collagen and will deteriorate with age)
- Gender (most common in women)
- Pregnancy
- Oestrogen/Menopause
- Obesity
- Lack of exercise
- Trauma
- Surgery
- Steroids
- Sauna

- Sun exposure
- High heels

Facial telangiectasia

Telangiectasia is the medical term for small red veins which are commonly referred to as red veins, dilated capillaries or broken veins.

Facial telangiectasia arises from a permanent dilation of superficial small blood vessels, such as arterioles, venules, and capillaries particularly around the nose, cheeks and chin. These small blood vessels may be linear or have an enlarged red centre from which 'legs' radiate, hence the term 'spider naevi'.

Facial telangiectasia responds very well to short wave diathermy.

What causes facial telangiectasia?

A number of potential risk factors have been implicated as precipitating or aggravating factors for prominent veins in the face. Namely:

- *Family History*
- *Environment* (e.g. extremes of heat or cold, sun damage)
- *Skin conditions* (e.g. Rosacea)
- *Poor health* (e.g. liver disease)
- *Injury* (e.g. waxing or plucking of facial hair)
- *Medication* (e.g. steroids, inappropriate use of topical retinoids)
- *Pregnancy*
- *Hay fever and allergies* causing constant sneezing may rupture capillary walls

- *Alcohol*
- *Smoking* (reduces oxygen supply and destroys collagen)

Indications

Although the presence of varicose and thread veins is usually obvious, a thorough, sensitive and honest consultation with a specialist is of paramount importance in order to establish if microsclerotherapy or diathermy would be the right treatment for your venous problems. SFMedica has been treating telangiectasia, thread and reticular veins with great success.

The long term success of the treatment depends on a thorough consultation, an individualised treatment plan for your venous problems and adherence to the aftercare instructions.

Your first consultation will last at least 30 minutes with your doctor asking questions about your medical history to ascertain the underlying cause of your venous problem and identify any potential contraindications that would render microsclerotherapy and/or diathermy the wrong treatment choice for your prominent veins. You will also be physically examined as part of the pre-treatment assessment.

It is vital to inform your doctor if you are pregnant or breast feeding, take any blood thinning medication or steroids, have a past history of deep vein thrombosis (DVT), suffer from any blood disorder such as thrombophilia, are diabetic or immunocompromised. You should also notify your doctor of any allergies to foods or medicines. A test dose may be required 24 hours prior to your treatment.

Consultation and pre-treatment assessment are free of charge and take place at the London Slimming & Cosmetic Centre.

Pre-treatment assessment consists of

- *Medical history* – you will be asked to fill

in a medical questionnaire in addition to a thorough investigation into the cause of your prominent veins including any risk or precipitating factors.

- *Physical examination* (for leg veins) - the extent of your varicose or thread veins will be assessed followed by a physical examination checking your pulses and any swelling or skin changes associated with your prominent veins. Finally a Doppler will be used to detect venous blood flow in major veins of the affected leg(s) - please wear 'large knickers' and/or a long T-shirt as a proper physical examination and assessment of your venous flow cannot be achieved if clothing is in the way. This is a very important step in identifying any potential venous reflux in the presence of thread and varicose veins. Reflux is abnormal retrograde flow of blood in the veins. Reflux occurs if vein valves are absent or incompetent. Patients with suspected venous reflux are not good candidates for sclerotherapy and should be referred for more comprehensive vein imaging by Duplex ultrasound.
- *Consent* – you will be asked to sign a consent form following a detailed explanation of the recommended treatment as well as all possible benefits and complications.
- *Measure of your hosiery* (for leg veins) – Graduated Compression Hosiery is an integral part of the aftercare following leg vein treatment with sclerotherapy. Graduate medical grade, measured and fitted compression hosiery applies a precise amount of pressure greatest at the ankle and gradually decreases that pressure toward the top of the stocking. External compression can augment the body's natural muscle pump, improving venous flow by returning distended veins to normal size and restoring the competency of the valves. In addition, appropriate hosiery is associated with less complications post-sclerotherapy.

- Q&A – You will be given plenty of time to ask any questions and discuss your concerns and expectations with **Dr S. Foutsizoglou**.

For more information on leg vein sclerotherapy you can also download the FAQ PDF from our website. For answer to some of your questions regarding short wave diathermy for facial veins please download the Facial Red Veins PDF from our website.

Treatment Explained

Short Wave Diathermy for Facial Veins

The treatment involves a fine hair like needle which is applied to the dilated capillary and conducts an electrical current which causes the blood to clot, triggering a healing reaction which seals the vessel closed. The treatment can be uncomfortable, the sensation being of a hot prick. Local anaesthetic cream can be applied before the treatment in order to make it more comfortable.

Immediately after the treatment, the appearance of the capillaries will be much improved. The treated area will be red and there may be some local swelling which usually subsides within 24 hours. It is not unusual to develop small scabs at the treatment site. These should be left alone and will fall off during the course of the next 7 days. These scabs will look similar in appearance to bramble scratches.

During the next two weeks the treated capillaries will re-appear and may look more noticeable than before - this is a normal part of the healing process. Gradually they will fade again. The success of the treatment can be judged at 4-6 weeks. A follow up appointment is recommended at this time should further treatment be required.

Please note that it is not always possible to achieve 100% clearance. Often more than one

treatment 4 weeks apart is necessary, particularly on larger veins and those around the nostrils. Depending on the cause, the problem may return requiring further treatments in the future.

How safe is this treatment?

This is a heat treatment. Any risks are related to the damage caused to the skin by heating it. These risks include burning, scabbing, infection, pigment changes and scarring.

However you are unlikely to have any problems if you follow the aftercare advice.

Short Wave Diathermy can also be used in the treatment of the following skin problems:

- Spider Naevi
- Red Blood Spots
- Skin Tags
- Milia
- Warts

Sclerotherapy for Leg Veins

Sclerotherapy is a safe and well established treatment for thread veins on the legs. Although there are a number of alternative treatments, it remains the most reliably successful of them all.

A solution is injected slowly with a tiny needle, very superficially into the veins, causing the lining of the vein to swell and become sticky. Essentially the damage caused by the solution initiates the body's wound healing response and as soon as fresh blood passes through the sclerosed vein it clots and sticks to the damaged vein wall. The blood forms a hard 'sclerothrombus' firmly attached to the vein wall. The hard sclerothrombus occludes the vein.

Dr S. Foutsizoglou uses a combination of magnification, good illumination and the fibreoptic Veinlite for mapping and injecting superficial veins and the network of feeder veins (i.e. reticular veins) that are often responsible for spider veins and telangiectasia. Compression is then applied to close the veins. Over a period of time the vein will heal closed and fade away. This procedure when performed on small veins is called microsclerotherapy.

Sclerosing agents

The solutions used in microsclerotherapy are classified into three groups based on their mechanism of action:

- Detergents – The most commonly used solutions (i.e. Sodium Tetradecyl Sulphate and Policonadol) belong to this group.
- Osmotics
- Chemical Irritants

Fibro-Vein (Sodium Tetradecyl Sulphate) is a prescription only medicine (POM), manufactured in the United Kingdom and has a product licence for the treatment of varicose and thread veins. The intravenous injection of Sodium Tetradecyl Sulphate, an anionic fatty acid salt, is considered to act as an irritant to the vein wall, so that on compression of the treated vein, scar tissue forms and the vein is permanently occluded.

How safe is this treatment?

Sclerotherapy is a safe and well established treatment for thread veins on legs. Though safe, it is not entirely without risk. The two most common side effects are something called *haemosiderin deposition* and *telangiectatic matting*.

Haemosiderin deposition occurs when the vein is not entirely closed, blood is trapped and clots. In some people iron pigments leak from the clot and stain the skin over the vessel brown. These brown

marks are usually not permanent but may take 6 - 18 months to fade. They darken when exposed to the sun and will take longer to fade if tanned.

Matting occurs if the fragile vessel is injured during the injection, leaving a mat of tiny veins that look like a blush or a red bruise. Matting usually disappears completely after 6 - 12 months, but if it persists, it can be treated with sclerotherapy if the needle can access the fine vessels and flush the solution gently through.

Other risks are extremely rare but these include:

Allergic reaction - any drug carries risk of allergic reaction. It is quite common for patients to experience some itching and some redness at the treatment site. This is no cause for concern and will pass within a few hours.

If the solution irritates the tissue surrounding the vein, in rare instances *blistering* can occur. If left alone these can potentially lead to further blistering and may scar.

Rarely a vein may become painful as it heals, this is called *phlebitis*.

Deep vein thrombosis has been reported following this treatment.

Aftercare

Facial veins treated with short wave diathermy

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During the next two weeks the treated capillaries will re-appear and may look more noticeable than before - this is a normal part of the healing process. Gradually they will fade again. The success of the treatment can be judged at 4-6 weeks. A follow up appointment is recommended at this time should further treatment be required.

Please note that it is not always possible to achieve 100% clearance. Often more than one treatment 4 weeks apart is necessary, particularly on larger veins and those around the nostrils.

Complications

This is a safe treatment and complications are rare. However the following complications may occur:

- Scarring
- Infection
- Pigment changes

After treatment

Do not touch the treated area for 4-6 hours; Avoid energetic exercise or swimming for 48 hours;

- Do not touch the treated area for 4-6 hours;
- Avoid energetic exercise or swimming for 48 hours;
- Protect the skin from the sun with SPF 30+ sun screen;
- Apply cool compresses at home to reduce any swelling or discomfort.

Leg veins treated with microsclerotherapy

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.
- If you have already been supplied with a support stocking bring it with you on the day of treatment.

After treatment

You may resume normal activities immediately. You will be given special hosiery to wear for a week after the treatment. This looks like normal hosiery and you will have a choice of colours and styles. You will be advised to take a 10 minute walk immediately afterwards, to avoid high impact exercise for 2 weeks, no steaming hot baths, showers, saunas or sun beds for 2 weeks and no waxing for 4 weeks. Please discuss any long haul travel plans within 4 weeks of treatment with your doctor

Why is compression important?

Following microsclerotherapy medical compression hosiery is highly recommended to be worn continuously for 48-72 hours and during the day for a further 7-10 days. Compression will keep the vein walls closed until scar tissue (or fibrosis) takes place resulting thus in permanent occlusion of the prominent vein.

Post-Sclerotherapy compression will also lower the likelihood of pigmentation and thrombophlebitis.

External compression can augment the body's natural muscle pump, improving venous flow by returning distended veins to normal size and restoring the competency of the valves. Therefore consider wearing support hosiery long term to minimise thread vein recurrence.

What results can I expect after microsclerotherapy for my leg veins?

The results are not immediate. The veins look worse before they get better and the treatment may need to be repeated at 4-12 weeks intervals. Most people see a 60-80% improvement in the appearance of their veins somewhere between one and four treatments. In rare cases the treatment has little or no effect. Results cannot be guaranteed.

Are the results permanent?

The veins that are successfully treated will not recover. However please bear in mind that this is a treatment for the symptoms and not a cure for the underlying cause of your venous problems. Therefore new veins may develop over time.

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For more info please download the Advice to Patients PDF from our website.