ADVANCED THERAPIES
AT ROCHESTER RADIOLOGY

Cosmetic Sclerotherapy Information Guide

What are spider veins and varicose veins?

Spider veins and varicose veins are abnormally dilated veins that can be seen on the skin surface. Spider veins (also known as telangiectasia, thread veins, or broken veins) are the smallest or mildest form of these abnormal veins and are classically blue, purple, or red in color. By definition, they are up to 1 millimeter in diameter. Their fine branching pattern can look like lines, tree branches, or spider webs (hence their name). They are almost always found on the legs or face and can cover either a very small or very large area of skin. They can be asymptomatic and simply a cosmetic issue, or they can be a harbinger for underlying venous disease along with varicose veins and symptoms such as pain, heaviness, swelling, and restlessness in the legs. Flow abnormalities within the medium sized veins of the leg, called reticular veins, can also lead to the development of telangiectasia.

Varicose veins are simply the larger version of these abnormally dilated veins, measuring >3mm. They often look like cords and appear twisted and bulging. They can be swollen and raised above the surface of the skin. Varicose veins are often found on the thighs, backs of the calves, or the inside of the leg. During pregnancy, varicose veins can form around the vagina and buttocks. Varicose veins nearly always are a sign of more serious underlying venous disease and are almost always associated with symptoms.

Factors that predispose to the development of spider veins and varicose veins:

- **Age**: The development of spider veins may occur at any age but usually occurs between 18 and 35 years, and peaks between 50 and 60 years.
- **Gender**: Females are affected approximately four times more than males.
- **Pregnancy**: Pregnancy is a key factor contributing to the formation of varicose and spider veins. The most important factor is circulating hormones that weaken vein walls. There's also a significant increase in the blood volume during pregnancy, which tends to distend veins, causing valve dysfunction which leads to blood pooling in the veins. Varicose veins that form during pregnancy may spontaneously improve or even disappear a few months after delivery.
- **Lifestyle/Occupation**: Those who are involved with prolonged sitting or standing in their daily activities have an increased risk of developing varicose veins. The weight of the blood continuously pressing against the closed valves causes them to fail, leading to vein distention.

Red arrow – spider veins (telangiectasia)
Blue arrow – feeder veins (reticular veins)

What is cosmetic sclerotherapy?

Sclerotherapy is a nonsurgical method for the treatment of unwanted spider, reticular, and varicose veins in the leg, including tiny spider veins. It involves using a very fine needle to inject a medication called a "sclerosing agent" directly in the spider veins that causes them to close down and eventually disappear. The medication causes the lining of injected veins to become irritated, resulting in closure of the vein. Ultimately, the body absorbs these nonfunctioning vessels. Sclerotherapy has been performed for decades and is very safe.

At our office, we use a sclerosant called **Sotradecol** (Sodium Tetradecyl Sulfate or STS), an agent which is recognized and used around the world, and is FDA-approved in the U.S. We may use a foam version of this agent which is not FDA-approved but has been successfully used by vein specialists for decades. Some people may have had saline injections before for sclerotherapy – we do not use this as saline sclerotherapy results are not as successful and long lasting as Sotradecol; moreover, saline injections are painful, whereas Sotradecol injection are nearly painless.

Many people also have larger varicose veins associated with underlying reflux (or backflow) in their main superficial veins. This is usually associated with pain, aching, restlessness, heaviness, and swelling of the legs. If you have these signs and symptoms of chronic venous insufficiency, we recommend you make a consultation to be evaluated by our team as we provide the latest, state-of-the-art noninvasive procedures to treat these more serious conditions as well. If you are not sure, rest assured that the initial cosmetic sclerotherapy consultation will screen for these underlying conditions as well.

How will I know if I am candidate for cosmetic sclerotherapy?

Cosmetic sclerotherapy is a treatment for small spider veins which are unsightly and either asymptomatic or minimally symptomatic. Some people also have some tenderness and pain associated with these spider veins, usually depending on their size and extent. At your first appointment, you will have an initial consultation with one of our Interventional Radiologists, who are board-certified physicians and vascular specialists trained in minimally invasive procedures, especially in vein treatments. They will determine by history and ultrasound if you simply need injection treatment or if there is larger, underlying problem. Only after ensuring that no underlying problem is present will we proceed to start the cosmetic sclerotherapy for your spider veins.

You are not eligible for sclerotherapy if you are pregnant, breastfeeding, or are bedridden. You must wait at least 3 months after delivery before you can be considered for the procedure. You can have sclerotherapy if you take birth control pills. If you have had a blood clot in the past, your eligibility will be determined on an individual basis, and will depend on the leg and the cause of the clot.

Will my insurance cover sclerotherapy?

Cosmetic sclerotherapy is a self-pay procedure. Insurance companies do not provide coverage for sclerotherapy when it is performed for cosmetic reasons. It is also usually not covered for mild pain or tenderness associated with the spider veins. Rarely, some insurance companies do cover sclerotherapy for extenuating circumstances and extensive disease, but again this is not common.

How successful is sclerotherapy in treating varicose and spider veins?

It is very important that the person who decides to have spider veins treated understands the benefits and the limitations of the treatment. In order to prevent disappointment when the healing process seems prolonged or the results are less than ideal, it is important to understand that immediate disappearance of the spiders on the day of treatment does not occur. This is because the method is based upon a controlled injury to the vein wall over time.

The majority of persons who have sclerotherapy done will see good improvement and have satisfying results. It is estimated that 50-80% of injected veins may be eliminated at each session. In general, after spider veins are successfully injected, they immediately disappear and within 15 seconds reappear as red, raised veins secondary to inflammation from the injection. Successfully treated spider veins generally respond to treatment in 3-6 weeks by starting to disappear or lighten. If they respond to treatment, they will usually not reappear. However, many people may need multiple sessions, usually between 2-5 sessions, to successfully treat the spider veins.

The key to understanding why spider veins tend to recur is whether there is more underlying disease called feeder vessels, or reticular veins. This is analogous to scooping out water from a boat, but leaving the hole in the bottom of the boat open. Only when the underlying problem is solved by stopping the feeding vessels can the spider veins be properly treated. At Advanced

Therapies we achieve this using special state-of-the-art technology and devices which are able to show how and where the feeding vessels lead to the spider veins. These feeding vessels are then injected, stopping the source of the problem. Then, and only then, can the spider veins properly be sclerosed.

What are the most common side effects of cosmetic sclerotherapy?

- **Itching:** You may experience mild itching along the vein route. This itching normally lasts one to two hours but may persist for a day or so.

- **Bruising and Pain:** A few patients may experience moderate to severe pain and some bruising, usually at the site of the injection. The veins may be tender to the touch after treatment and an uncomfortable sensation may run along the vein route. This pain is usually temporary, in most cases lasting one to at most seven days. Use of support hose is recommended and avoidance of alcohol and anticoagulant medication for 72 hours prior to each treatment session may minimize effect.

- **Transient Hyperpigmentation:** Approximately 10-30% of the patients who undergo sclerotherapy notice a brownish discoloration generally within a few weeks after treatment, along the course of the vessel. This tends to happen more in people of Mediterranean or Hispanic descent. There is spontaneous clearing within 6-12 months, although it may occasionally persist for longer than a year. For this reason, patients are advised to avoid direct sunlight and tanning booths for 2 weeks following the procedure.

- **Sloughing:** Sloughing occurs in less than 1% of the patients who receives sclerotherapy. Sloughing consists of a small ulceration at the injection site, which heals slowly over 1-2 months. A blister may form, open and become ulcerated. The scar that follows should return to a normal color. This usually represents injection into or near a small artery and is not preventable.

- **Blood accumulation in treated vessel:** This may present as a tender bump at a treatment site. The use of prescribed compression hosiery will minimize this possibility. Some times at follow-up the accumulated blood may need to be drained via a tiny needle.

- **Telangiectatic Matting:** This term refers to the development of tiny new blood vessels in the treated area. This temporary phenomenon occurs two to four weeks after treatment and usually resolves within four to six months.

- **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.

How do I prepare for my sclerotherapy?

Do no take aspirin, ibuprofen (Advil), or other anti-inflammatory medications for 48 hours before and after sclerotherapy, because these medications may interfere with the action of the sclerosing agent or increase bleeding. Tylenol is permitted. Steroids such as Prednisone also decrease the effectiveness of the sclerosing agent, and if possible should be discontinued 48 hours prior to the sclerotherapy if deemed safe by your physician. Also, Tetracycline and Minocin (both antibiotics), may cause a staining or hyperpigmentation of the skin if taken 7 to 10 days before or after sclerotherapy. Ask your doctor about alternative antibiotics if required during that time frame. Finally, do not apply lotion to your leg the day of the procedure and bring your compression stocking with you.

How many treatments will be needed?

The number of treatments needed to clear or improve the condition differs from patient to patient depending on the extents of varicose and spider veins present. Some patients only need one treatment. However, while sclerotherapy is a safe and highly effective, most commonly patients need between 2-5 treatments to clear or improve unsightly veins to a patient's satisfaction. A small minority of patients do not improve even after multiple treatments.

What happens after the treatment?

A sclerotherapy session generally lasts 20-30 minutes. Following the injection, you will put the 20-30 mm Hg (Grade 1) compression stocking that you brought with you on over the treated area. You may resume your regular activities including work and are encouraged to walk immediately after the procedure. Wear the compression stocking for 48 hours consecutively after the treatment. After that, wash the injection sites with mild soap and lukewarm water as needed.

Avoid the following after your procedure:

- Avoid aspirin, ibuprofen, and other anti-inflammatory medications for 48 hours. Tylenol can be used if you need pain relief
- Do not take a hot bath or sit in a whirlpool or sauna for 7 days following the procedure. You may take showers, but avoid long showers with very hot water.
- Do not apply hot compresses or any other form of heat to the injected areas.
- Avoid direct exposure to sunlight (including sun tanning and tanning beds) for 14 days following your procedure to prevent the hyperpigmentation (brown spots) from developing on your skin.