



The Skin and Vein Center
Oneonta Laser Derm
& Day Spa
Natural Good Looks and
Leg Veins Our Specialty

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Modern Varicose Vein Treatments: What Every Patient Should Know

Step by Step Procedure Guide for:

Laser Ablation (ELVT)

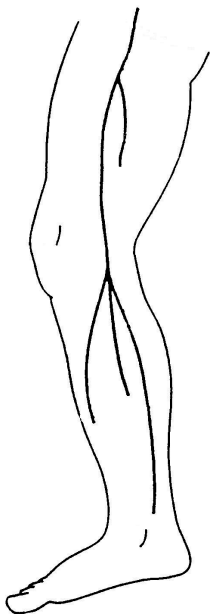
Phlebectomy

Ultrasound Guided Sclerotherapy

Varicose veins can be a problem for many people. You are not alone in your desire to rid yourself of these unsightly veins. You may have had them for years or they may have just recently become a problem for you.

In most cases they are in fact related to an underlying medical problem known as venous insufficiency or *reflux*. Varicose veins may be causing you a dull aching feeling, swelling in the legs, or problems with the skin in the legs. The next few pages will explain what differentiates veins as a cosmetic concern versus a medical problem.

The Circulatory System

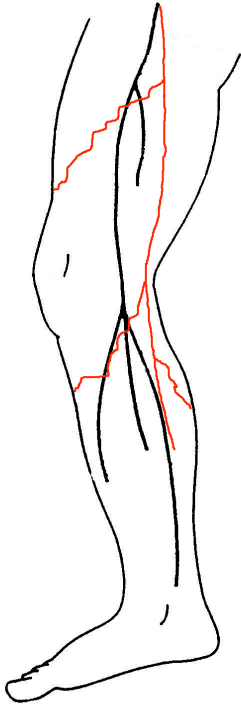


Arteries carry oxygenated blood to your legs and the veins carry de-oxygenated blood away from your legs. The blood returns to the lungs to pick up more oxygen and returns to the heart to be pumped out again through the arteries.

The venous system has two components. The first is the deep venous system. It lies below the muscles and transports 90% of the blood away from your legs. It is the system that can get blood clots, which may be life threatening if not treated. It usually has nothing to do with your varicose veins.

The second component is the superficial venous system. It transports approximately 10% of blood away from your legs. You can get clots in this system that causes pain and discomfort (superficial phlebitis) but they are not life threatening. The superficial system has everything to do with your varicose veins.

Veins have one-way valves that open up as the blood travels upward, and then close down tightly to prevent the blood from leaking back down. The deep and superficial veins both have these valves. When the deep system has faulty valves (the valves do not close tightly allowing the blood to leak back down) you will develop profound and chronic swelling. When the superficial system has faulty valves you may develop varicose veins.



Reflux

The condition that results from these leaky valves is known as **reflux**. When the blood is refluxing back down the legs it puts excess pressure on the vein walls which causes them to expand. This expansion causes the valves to be even more ineffective.

In the picture to the left, the black markings represent the deep venous system. The dotted line marking represent the superficial system. The **Great Saphenous Vein** is the **main tree** of the superficial system. The **varicose veins** are like the **branches of the tree**.

In order to treat the varicose veins effectively the entire great saphenous vein must be treated. If we just removed the **branches** the refluxing blood in the **main tree** would result in more varicose branches.

In rare cases you may have reflux in the great saphenous vein that causes spider veins on the medial thigh, knee and calf. But for the most part

spider veins are unrelated to reflux in the saphenous vein, therefore insurance companies consider their treatment cosmetic.

Can varicose veins cause significant medial problems?

When reflux is left untreated over many years, the constant pressure backup may cause a leaking of the blood into the tissues. This leaking causes brown stains on the skin. This is known as stasis skin changes and can become serious.

In cases where the stasis is severe a breakdown of the tissue may result in a chronic venous stasis ulcer. Venous stasis ulcers are very difficult to treat and are chronic in nature with the ulcer reopening just when you thought it was healed.

Because of this complication some insurance companies may consider it medically necessary to treat your varicose veins. Our insurance specialist will help to determine your specific benefits.

Venous stasis ulcers do not occur in all patients with varicose veins. Unfortunately, we cannot definitively predict who will go on to develop this complication. When skin changes begin to appear the likelihood of an ulcer increases.

Treatment Options for Varicose Veins

- **No treatment:** Some patients opt not to treat their varicose veins. They may live their entire life with varicose veins and never develop complications more serious than a chronic dull ache.
- **Compression Hose:** Compression hose aid in the treatment of varicose veins by helping to *squeeze* the blood back out of the legs by means of an upward gradient compression. In many cases this will relieve discomfort.
- **Ultrasound Guided Sclerotherapy:** Under the guidance of ultrasound a needle is inserted into the great saphenous vein and a chemical is injected directly into the diseased vein. This chemical irritates the vein wall causing it to collapse and scar down.
- **Endo Venous Laser Ablation:** **The vein to be treated is located with the ultrasound**
A catheter is inserted into the great saphenous vein at the level of the knee. A laser fiber is then fed up the catheter into the first portion of the great saphenous vein. The laser fiber is slowly withdrawn as it fires energy into the vein causing damage to the vein wall. This damage results in the great saphenous vein closing down.
- **Ambulatory Phlebectomy:** After Endo Venous Laser Therapy has destroyed the proximal great saphenous vein the branches of the varicose veins are surgically removed. This is done through tiny incisions with an instrument that resembles a crochet hook. The veins are hooked and pulled out of the leg. The incisions are closed with steri strips. No sutures are required. In most cases you can return to work the following day.
- **Ligation and stripping:** The traditional surgical method used to remove varicose veins. This procedure involves numerous incisions requiring suturing and a prolonged recovery period.

A Treatment Plan Designed For Your Individual Case

Following your initial consultation, Dr. Dohner will recommend a course of therapy to address your specific problems.

If your ultrasound exam shows that you do not have reflux, then your problem will be one of only a cosmetic concern. We offer Injection Sclerotherapy and Laser treatments for cosmetic spider veins.

If your exam shows that you do have reflux, then your veins will be of a medical concern. We will contact your insurance company and supply them with the necessary documentation to precertify you for treatment.

We will do our best to help facilitate this, although we will ask you to keep in contact with your insurance carrier as well. Unfortunately, some carriers refuse authorization. If this is the case we can review fees with you and arrange financing if necessary.

The treatment of varicose veins requires a staged treatment plan.

The first stage of treatment involves destroying the main vein (the tree) with laser energy. When this vein has been closed, often the larger branches (your visible varicose veins) decrease considerably with time. Sometimes immediately after the laser treatment is done, an in office surgery to remove the surface veins can be done. Other times after your initial laser surgery we will see you back in the office and perform a post operative ultrasound. At that time we will evaluate the bulging veins to see what further treatment might be needed.

It may be necessary to do another in office surgery where we actually remove the branch varicosities, or injections may be all that is needed. In some cases, no further treatment will be needed.

Stage One

Great Saphenous Vein Ablation

(Also used for Small Saphenous and Incompetent Perforator Veins)

Prior to the laser procedure we will rescan your leg and take measurements of the vein. We will outline the course of the Great Saphenous Vein with a marking pen.

Next we will clean your leg with an antibacterial solution and prepare a sterile field. It is important to keep your hands on your chest, under the drape. This will prevent you from contaminating the sterile field. At this point we will insert the catheter at the level of the knee and feed it up to the groin.

We will inject more local anesthetic around the catheter. This is done to prevent pain when the laser is fired, as well as compress the vein and protect the surrounding nerves. After the anesthesia has been given above the knee, we will insert the laser fiber into the catheter. This will be done utilizing ultrasound to assure the proper positioning of the laser fiber prior to firing the laser. A bright light will also be visible through the skin. This light is from the aiming beam, as the laser light is invisible.

To prevent any damage to the eye from the laser, we will put on safety goggles. The likelihood of damage to the eye is almost non-existent. We would have to point the laser directly in your eye at close range to harm the eye. We will then withdraw the laser slowly as it is being fired. You may experience an odd taste or smell during this part of the procedure.

The great saphenous vein will be treated and sealed by the laser energy resulting in closure of the vein so it can't carry blood and cause reflux.

After the laser is withdrawn we will cover the insertion site with a bandaid and gauze. Over this simple bandage we will apply a thigh high compression hose. You are to wear the hose around the clock for the first 24 hours then during the day for the following 21 days, removing it only to shower.

We will see you back in the office in one week. Post operatively you will have a significant

amount of bruising, this is to be expected. We will prescribe an anti-inflammatory medication to be taken for the first few days.

After two weeks you may remove the compression hose. If some of the remaining bulging varicose veins persist, we may follow up your laser procedure with a minimally invasive surgical procedure performed in the office to remove the bulging branches.

Stage Two

Ambulatory Phlebectomy

Prior to beginning the procedure we will mark the veins which are to be removed while you are in standing position. Next we will begin injecting the local anesthetic. This part of the procedure is slightly uncomfortable, but following the local anesthetic you should not encounter pain. You will feel a tugging and pulling sensation. Should you experience pain, please inform us and we will administer more local anesthetic. We do not expect you to be uncomfortable.

Next we will clean your leg with an antibacterial solution and prepare a sterile field. It is important at this point to keep your hands on your chest, under the drape sheet. This will prevent you from contaminating the sterile field.

We then proceed to the Ambulatory Phlebectomy where we will actually tease the bulging varicosities out by hooking them with a crochet like instrument. This will be done through tiny incisions that will not require any stitches.

The tiny incisions will be closed using steri-strips. A bulky dressing will be applied over the steri-strips. Your compression hose will go over the entire dressing. This will stay in place, including the hose, for three to five days. You will need to keep the dressing dry. You will be given a large plastic bag to cover your leg before showering.

After two days the dressing will be removed. You must leave the steri-strips in place for one week. You will continue to wear the compression hose for the next 14 days, during the day, removing them to sleep.

At one week post-operatively there will be residual bruising, but you will already begin to see the vast change in the appearance of your leg. You will find yourself asking, "Why did I wait so long to have something done?" At one-month post operative, most if not all of the bruising will have cleared. The small stab wounds have healed and will continue to lighten with time. Those unsightly bulging varicose veins are just a memory!

Remember though, varicose veins can be an ongoing problem for you. The body is always trying to repair itself by creating new veins. **It will be important for us to follow you yearly with an ultrasound exam.** The ultrasound exam will help us locate any new veins that are developing and we can treat them with injections before they get worse.

Stage Three

Ultrasound Guided Sclerotherapy

Occasionally some veins cannot be treated with or are missed by ELVT and phlebectomy. This is where Ultrasound guided sclerotherapy is useful.

Using ultrasound the varicose vein is seen on a screen and Dr Dohner uses this to guide the placement of a needle directly into the diseased vein. A sclerosing agent is injected into the veins. This causes an irritation to the inner lining of the vein resulting in closure of the vein. The injections are done along the course of the vessel as needed. The number of treatments varies depending on the severity of your condition.

We look forward to helping you improve the appearance of your legs.

Who Should You See To Get The Best Results?

Your best chance of getting the best results is to see an expert who continues to learn about leg veins. The expert should be a person well trained in other aspects of cosmetic surgery and skin care as well.

Who is Dr Dohner?

Dr Dohner has been treating leg veins since 2001. **He is the area's only Board Certified Varicose Vein Specialist in Phlebology** and is the medical director for the area's only comprehensive leg vein center that can perform laser leg vein treatments, in office phlebectomy, and ultrasound guided sclerotherapy. He has seven medical and cosmetic lasers to treat most of your cosmetic and leg vein concerns. Dr Dohner is a member of the American Board of Phlebology, American College of Phlebology, the American Society of Lasers in Medicine and Surgery, and the American Academy of Cosmetic Surgery.

How do I make an appointment?

Consultation can usually be arranged within 2-7 days, by calling **607 / 431-2525**. In fact, sometimes we are able to see you the same day that we receive your call. We are conveniently located across from the municipal parking lot at 41-45 Dietz Street in Oneonta.

If you have any concerns about leg veins or sclerotherapy or would like to ask questions, my staff and I would love to answer your questions. We very much would like to help you achieve the looks you desire.

The Skin and Vein Center

Eric Dohner, MD

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607/431-2525 or 888-DOHNERMD