



New Vein Patient Information

WHAT IS CHRONIC VENOUS DISEASE (CVD)?

There are two different types of blood vessels that exist. The first are called arteries and are high pressure blood vessels which are responsible for carrying nutrients and oxygen-rich blood from your heart to other parts of your body. The second are called veins, low pressure blood vessels which return oxygen-poor blood from the body back to your heart.

There are one-way valves in the veins to prevent the back flow of blood. Each step taken forces blood up through these veins, with the contractions of the calf muscles working as pumps. Under normal circumstances, when the muscles relax, the valves snap shut, preventing the blood from flowing back down through the veins.

When the valves malfunction, they do not snap shut, which can cause blood to flow backwards down the leg veins under gravitational influence. This backwards flow is also called "venous reflux." When this happens, blood is allowed to "pool" in certain areas. This "pooling" causes pressure on valves below and stretches the walls of the vein to the point that those valves are also unable to snap shut, causing increased pressure within the vein. Varicose veins develop when veins that are close to the skin develop incompetent valves. When those veins enlarge from the increased pressure, they are seen as bulges on the surface of the skin. It is important to understand that while varicose veins may be your main complaint, most of the time they are a sign of a bigger problem-increased pressure in your veins caused by leaky valves, also known as Chronic Venous Disease (CVD).

HOW DO I GET EVALUATED FOR CVD?

Once you call our office and set up your appointment, you will first have a thorough history and physical performed, focusing on any vein or leg related complaints. If, after that assessment we feel that it is indicated, an ultrasound study will be ordered to look for CVD. The whole visit should take around 2 hours.

After you have had that ultrasound and vein mapping of your legs, your physician will develop a treatment plan specifically for you, to treat any significant findings. Typically, we will call you within a week of your consult with the results of your ultrasound study and to discuss the recommended treatment plan with you. Most insurance companies require that you attempt to manage your CVD with a trial of conservative measures prior to authorizing and paying for any vein procedures. If required, this conservative measures trial typically lasts between 3 and 6 months, and includes measures such as regular exercise, weight loss, leg elevation and the use of medical grade compression stockings. In order to formally document this conservative measures trial, we do require either a receipt for your stockings or documentation from your doctor's office verifying that you have used medical grade compression stockings in the past.

At the end of the conservative measures trial, you will have another appointment and your treatment plan will be discussed again prior to starting the insurance authorization process. Once you have had your follow-up appointment, our insurance specialist will submit all the clinical information that is required by your insurance company for pre-certification. We will schedule your procedures once our office has received your insurance company's authorization. By law, the insurance company has a 45 day grace period to respond to our request. In most cases, it takes just a few weeks.

HOW IS CVD TREATED?

Depending on the extent of your CVD, you may be a candidate for a combination of the following procedures.

Endovenous Thermal Ablation using either Radiofrequency (RF) or Laser catheters

This mode of treatment involves the insertion of a catheter into a vein which, when activated, will apply heat to the inside of the vein. The heat damages the diseased vein and over time, your body will essentially absorb it. These procedures are minimally invasive and are performed in the office, using sterile technique. You are awake during the procedure, but you will have minimal discomfort, as your leg will be numbed with local anesthesia, and many of our patients choose to receive oral sedation for these procedures. Most individuals are able to return to work the next day.

We ask that you arrive 30 minutes early to take an oral anti-anxiety medication, and you **MUST** have a driver. The entire procedure takes less than one hour per leg treated but you can anticipate being here for approximately 2 hours. One week after the ablation you will have an appointment for ultrasound on the leg that was treated. This is a quick 10-15 minute appointment that does not require a driver.

Endovenous Chemical Ablation using Ultrasound Guided Foam Sclerotherapy (USGS)

Some veins should not be treated with thermal ablation techniques. Maybe they are too close to the surface of the skin, too small/twisted to pass the catheter, or too close to more vital tissue, like arteries or nerves. In such circumstances, we treat the diseased veins with USGS.

Under ultrasound guidance, we inject an FDA approved chemical detergent (typically polydocanol, or “Asclera”) into the diseased vein. The medication irritates the inside lining of the vein and causes it to close off. The body then recognizes the vein as a non-working vessel, breaks it down, and absorbs it. This procedure is also performed in our office and generally does not require local anesthesia. Most individuals are able to return to work the next day.

Ambulatory Phlebectomy

This is removal of bulging veins or branches of veins called tributaries. After the incompetent saphenous veins have been closed with either endovenous thermal or chemical ablation procedures, portions of the branches can be removed if the bulging remains. We ask that you arrive 30 minutes early to take an oral anti-anxiety medication, so you **MUST** have a driver. After marking the bulging veins, the leg will be draped and prepped in a sterile manner, and local anesthesia is injected around the bulging veins. Tiny incisions are made over the bulging veins, and the veins are removed through these incisions with a surgical hook. There is no need for stitches since the incisions are small enough to heal on their own. With this procedure you can anticipate being here 1-1.5 hours.

Injection Sclerotherapy for Surface Veins

Unfortunately, this is viewed as a cosmetic procedure by insurance companies. We think of sclerotherapy as more of a preventative type care versus cosmetic. In addition to making your legs look better, it will help prevent veins from becoming larger and bulging, while also slowing the progression of the disease process. The procedure includes using a tiny needle to inject a sclerosing agent (typically polydocanol, or “Asclera”) into surface spider veins. The medication irritates the inside lining of the vein and causes it to close off. The body then recognizes the vein as a non-working vessel, breaks it down, and absorbs it. You do not need a driver unless you are very anxious about the procedure and oral sedation is given.

Candela Gentle Yag Laser for Surface Veins

The laser creates a beam of high-intensity light that penetrates the tiny spider veins where it delivers a controlled amount of targeted therapeutic heat. The "Gold Standard" for surface spider veins is injection sclerotherapy. However, the laser can target tiny veins that a needle cannot fit into. Some patients may feel a slight discomfort with each laser pulse, sometimes described as the snapping of a rubber band on the skin. This discomfort resolves quickly and is minimized by Candela's patented DCD cooling. The number of sessions recommended depends on the size of the area requiring treatment and the condition of your skin. Many factors impact the efficacy of the individual laser treatments, including the severity of the condition being treated.

With most procedures, we will only treat one leg at a time, and you should be able to resume normal daily activities and to return to work the very next day. We highly encourage walking after any procedures done. It is the best thing for your legs and will help prevent a blood clot.

WHAT ARE THE RISKS OF THESE PROCEDURES?

The risks of the procedures for CVD treatments are rare but you need to be informed when making your decisions to be treated. Some of the associated risks can include:

Bleeding, bruising, skin discoloration, skin burn, swelling, inflammation, allergic reaction, infection, thrombus (blood clot), nerve effect, nodularity (bumps under the skin), and failure of closure

Once the incompetent veins are closed, we actually decrease your risk of thrombus (blood clot). Nerve effect is related to the heated vein transferring the heat to the nerve and causing numbness or tingling, and in very rare cases, muscle weakness. This is typically temporary and the lower the entry point on the leg the greater the chance of you experiencing some numbness or tingling that may affect the lower leg, and be present on your first 2 toes and the top of your foot. Failure of closure is rare, but it can happen and is generally seen with patients on Coumadin, who are significantly overweight, or who are not wearing the post-op compression stocking as recommended.

WHAT IS DOPPLER ULTRASONOGRAPHY?

Doppler ultrasonography is an ultrasound test of blood vessels. It looks at blood flow in *blood vessels* (veins and arteries). It aids in the diagnosis of various circulation and blood vessel problems including poor venous circulation, peripheral artery disease and arterial blockage, aortic valve abnormalities, and arterial injury or damage.

There is generally no preparation for this procedure, unless you are otherwise instructed. The test is simple and painless, involving an ultrasound transducer pressing gently on the skin overlying the blood vessels being studied. You are able to drive yourself after the procedure. This is a non-invasive test with virtually no risks. Some patients experience fatigue or soreness from standing or lying still for the duration of the test.

WILL I NEED ADDITIONAL TREATMENTS IN THE FUTURE?

CVD is a chronic, progressive disease process and no guarantee of the results of the procedures can or will be made. We do recommend periodic monitoring for any new findings, especially if you notice any new or worsening signs or symptoms. Our goal is to improve your quality of life in both the short and long term, by helping you manage this chronic condition.