



Endovenous Laser Treatment Patient Handout

What is Endovenous Laser Treatment?

Endovenous laser therapy is a promising development in the treatment of large varicose veins. By using this outpatient technique nearly every patient can avoid the risks associated with general anesthesia and an open surgical procedure.

The procedure is used to treat reflux or leakage of the Greater Saphenous Vein (GSV). In most patients who have problems with this vein, this vein needs to be treated before the smaller surface veins can be addressed. Reflux in this vein can lead to symptoms such as leg pain, swelling, heaviness, night cramps or throbbing. Endovenous laser systems can be performed to destroy the vein. The laser causes thermal injury to the inside of the vein which causes the vein to scar down and seal shut. The blood it carried is now shunted to healthier veins, improving circulation. Once this vein is treated the surface veins can be easily treated.

How is the procedure performed?

The patient may take a relaxing medication Halcion 1 to 2 hours before the planned procedure. (This should not be taken while operating a car or other machinery and the patient needs someone to drive them to and from the office while on this medication.)

The patient undergoes a surveillance ultrasound of the leg during which marks are made to map out the vein. A small amount of local anesthesia will be used to numb the skin. A catheter (hollow tube) is inserted into the vein under the guidance of an ultrasound machine. Then a laser is inserted into the catheter. Local anesthesia is given to numb the area between the vein and the skin along its entire length. The laser is turned on and slowly removed from the vein over the next few minutes sealing it shut. Some of the surface veins may be injected or removed after the laser procedure. A compression hose will be applied at the end of the procedure.

Following the procedure, you should go for about a 30 to 45 minute walk. You can return to your normal activities later that day. You will need to wear the compression hose for the next 2 to 7 days continuously and then daily for 2 -3 weeks. You will need to have a follow-up ultrasound performed 2 to 7 days following the procedure in our office. We will give you a Post-procedure sheet that goes over acceptable activities.

How long will the procedure take?

Usually around 1/2 hour for each leg treated, longer for >1 vein or with phlebectomies



Is The Procedure Painful?

No. The procedure is tolerated well with local anesthesia. It is similar to a dental procedure. Following the procedure, the patient may be given a prescription for an anti-inflammatory/ pain medication. This or an over the counter pain medication should take care of any discomfort.

How long will I be recovering?

Patients may return to most regular activities immediately. They must wear compression hose for the first 2 days continuously and then during the daytime for the next 3 weeks. No strenuous lifting but most activities are fairly well tolerated. You may return to work the next day if you feel okay. You need to exercise daily for the first month for 30 to 45 minutes. You can walk, do the elliptical, stairmaster, stationary bike etc....

What are the complications?

Deep venous thrombosis/ Pulmonary embolism is the most feared complication. The risk is very low with endovenous laser therapy. You must inform the doctor if you have had a deep blood clot in the past or you or someone in your family is “prone to clotting.” You must have an ultrasound within one week of the procedure to ensure that you do not have a deep blood clot. Please walk and wear the compression hose as instructed.

Bruising will occur and may be extensive following the procedure. The bruising may last several weeks and will change colors from blue-black to brown to green to yellow as it fades. This is normal and expected to occur.

Numbness and tingling in the leg may occur as a result of the anesthesia or the procedure itself. This abnormal sensation will usually resolve over time. There is no specific treatment to speed it up. Resolution is gradual.

Swelling is common. Usually this is mild at the injection site. If anything more than minor swelling occurs this should be reported to the physician immediately.

Allergic Reactions can occur any time a drug is given. If you have a known allergy to latex, lidocaine, “caine” medications or halcion you need to inform the physician.

Skin burns are usually mild and have occurred in rare instances. These usually heal without any scars or lasting complications. Unforeseen complications could occur that we are unaware of at this time.



Is there a possibility that the procedure will not work?

The results on the procedure are excellent but with any procedure there is always a possibility that it will not be successful. If during follow-up examination the vein has re-opened, this can be identified and treated again.

There is also the possibility that during the procedure the vein may “spasm”. There are procedures that can sometimes help in this situation but very rarely the procedure may need to be terminated. Further treatments would need to be performed on a later date.

Are the results permanent?

The veins that close due to the procedure normally do not return. However, people with varicose veins are prone to have more varices throughout the years.

Will Insurance pay for the procedure?

Many insurance companies may cover some or all of the procedure if it is medically necessary. We will try to determine if the procedure is medically necessary. If it is deemed medically necessary, we can supply you with documentation to assist you with getting your insurance to reimburse you for the cost of the procedure. We cannot guarantee insurance coverage. You should check with your provider to ensure what is covered. If it is not covered we can work out a payment schedule with you.

What if I need Open Heart Surgery Later in Life?

Often, superficial leg veins are used to bypass diseased arteries in open-heart surgery. However, varicose veins are not “ healthy” veins and are not suitable for bypass. Doctors have alternatives that they can use in these circumstances, mammary arteries, other veins or arteries

What about the veins left behind? After endovenous laser therapy of the veins, there may be some large veins that are still noticeable. These can be treated by sclerotherapy (injections for small veins<4mm) or ambulatory phlebectomy (pulled out for large veins>4mm).