

EVTA: Endovenous Thermal Ablation

Introduction

Endovenous Thermal Ablation can be performed with either laser fibers (Venasure) or radiofrequency probes (Closure). The procedures are very similar. Endovenous laser treatment is performed under local anesthesia in the doctor's office or in the hospital outpatient surgery center. There is little to no scarring and a relatively short recovery period after the procedure.

Procedure Description

At your procedural visit, a repeat ultrasound will often be performed on your legs for the purpose of reconfirming the location of the incompetent veins. Photographs of the treatment area will be taken.

At the beginning of the next procedure, the affected leg will be prepped with Chlorhexidine (to cleanse the skin of bacteria contamination). Next, the treatment area will be anesthetized with Lidocaine. A small hollow tube called a catheter will be inserted into the vein and positioned under ultrasound guidance. The laser fiber or radiofrequency probe will be advanced through this catheter like a wire until it sticks out of the end of the catheter into the vein. Laser energy or radiofrequency energy will be delivered to the target vein. At the end of the procedure, a compression stocking will be applied and must be worn overnight the first night after the procedure and then daily for at least two weeks.

You will return to the office within one week for an ultrasound examination of the treated vein. Rarely will an additional EVTA procedure need to be performed on the same leg. If we find any remaining smaller vein branches, we will destroy them with a procedure called ultrasound-guided sclerotherapy or ambulatory phlebectomy.

Potential Risks and Side Effects

All surgical interventions carry an inherent risk of infection, allergic reaction, bleeding and anesthetic complications, including cardiopulmonary complications. Below are possible risks and side effects that are specific to EVTA.

- **Allergic Reaction**

Very rarely, a patient may have an allergic reaction to the anesthetic agent. The risk of this is greater in patients who have a history of multiple allergies.

- **Pain**
Patients may experience moderate to severe pain following the procedure. The leg may be tender to the touch after treatment, and an uncomfortable sensation may run along the vein route. This discomfort is usually temporary.
- **Swelling**
Usually occurs after treating veins in the leg. It usually resolves in a few days but may last a few weeks, especially after treatment of large varicose veins. Wearing the prescribed compression hose lessens leg swelling.
- **Skin Burns**
Utilizing laser or radiofrequency energy carries a slight risk of skin burns, which could require further treatment.
- **Damage to the Eyes**
Laser therapy carries a risk of damage to the unprotected eye. You will be provided with safety goggles to protect your eyes.
- **Deep Vein Thrombosis**
A very rare complication, the dangers of phlebitis include the possibility of pulmonary embolus (a blood clot carried to the lungs) and post phlebotic syndrome, resulting in a permanent swelling of the leg. You will have an ultrasound within a week after the procedure to make sure there is no evidence of deep vein thrombosis.
- **Transient Hyperpigmentation**
Patients who have had EVTA therapy may notice some discoloration after treatment. This discoloration is almost always transient and will resolve in several months. In rare cases, this darkening of the skin may persist up to a year or longer.
- **Nodularity**
Nodularity at the site of vein removal may persist for up to a year. This occurs when there are pieces of the vein that remain in the body and have scarred down and become hard. With time, the body will absorb and soften these areas but some may persist.

- **Nerve Trauma**
Occasionally there can be trauma to surrounding nerves, which can result in a transient numbness that will resolve on its own with time. In rare instances, the localized numbness may be permanent.
- **Reoccurrences of New Veins**
When a patient has varicose veins, it is usually an ongoing problem. Several years after the vein has been treated the body will attempt to repair itself by taking veins that were insignificant and make them significant. We recommend a yearly follow up with ultrasound so that we can detect any new problems and treat them accordingly as they arise.
- **Spider Veins**
Occasionally occur along the path of the area treated with laser.

Potential Complications of Not Undergoing Treatment

The potential complications of not undergoing treatment are most often limited to merely a worsening of the condition (i.e., an increase in the number of veins or enlargement in the existing veins). In cases of large varicose veins, spontaneous superficial phlebitis or bleeding may occur. Patients with varicose veins associated with underlying venous insufficiency may develop ankle swelling and/or skin changes such as eczema, hyperpigmentation, ulceration.

Potential Benefits

The potential benefits of the procedure are reduction in the size or closure of the treated varicose veins and improvement in varicose vein-related symptoms.

For questions or to schedule an appointment, please call VCU Vein Care at (804) 628-4680.