

Endovenous Thermal Ablation

Endovenous Thermal Ablation is a treatment for varicose veins which uses radiofrequency or laser energy to cauterize (burn) and close problematic varicose veins in the legs. This treatment is used to help alleviate symptoms such as aching, swelling, leg heaviness, leg fatigue, burning, itching, restless legs, skin irritation, discoloration, or inflammation.

How is Endovenous Thermal Ablation Performed?

Using ultrasound guidance, a radiologist places a catheter (a small tube) into the problematic vein through a small opening in the skin. The tiny catheter, powered by radio-frequency (RF) energy or laser, delivers heat to the vein wall. As the thermal energy is delivered, the vein wall shrinks and the vein is sealed closed. Once the diseased vein is closed, blood is re-routed to other healthy veins.

Risks

The potential side effects of thermal ablation include, but are not limited to:

- Any procedure where the skin is penetrated carries a risk of infection. The chance of infection requiring antibiotic treatment appears to be less than one in 1,000.
- Any procedure that involves placement of a catheter inside a blood vessel carries certain risks. These risks include:
 - Bleeding
 - Damage to the blood vessel
 - Bruising or bleeding at the puncture site
 - Blood clots
- Allergic reaction
- Thermal burn
 - Rarely, thermal (heat) may damage surrounding tissue. This is rare and generally goes away in a short period of time.

Most Common Side Effects

- Thrombophlebitis (inflammation of the vein):
 - This is a common symptom which may cause pain, firm areas, and redness over the treated area.
 - There may be a “pulling” sensation or discomfort 5-7 days after the procedure. This is to be expected due to the vein scarring in place.
- Post-operative bruising is common. This can be alleviated by wearing compression stockings.
- Nerve damage:
 - Occasionally the nerve that runs next to the vein being treated becomes irritated from the heat. This can lead to some numb areas along the inside of the leg.

- These numb patches generally return to normal after 1 to 6 months.
- While these nerves are healing, it is common to experience numbness, tingling, burning, or “zing-like” sensations to the area affected.
- Swelling: It is not uncommon to experience mild swelling to the treated leg up to 6 months after the procedure. This can be due to inflammation, and to the body’s natural response of trying to reroute the blood flow to the deep venous system.

Before the Treatment

- Well-fitting compression stockings are an important part of the post procedure care and should be brought to the appointment. Compression stockings can be purchased at Juro’s Pharmacy, St. Vincents supply, or local medical supply stores, or online. Best brands of compression stockings to purchase are: Medi, Sigvaris, Juzo, or Jobst. **Do NOT purchase Therafirm brand.** Places to purchase compression stockings:
 - Juros Pharmacy: 2040 Grand Avenue, Billings, MT 59102 (ph#406/794-3349)
 - St. Vincents medical supply: 1124 16th Street West, Billings, MT 59102 (ph#877/859-2795)
 - Online: discountsurgical.com
- Shower prior to the procedure, as a shower will not be permitted for 3 days following the procedure.

- Wear loose, comfortable clothing.
- Eat as normal.
- A light sedative may be prescribed as long as you have someone to drive you to and from the appointment.
- An analgesic cream will be provided to apply to your leg 2 hours prior to the scheduled appointment. The instructions for the cream will be provided with the cream prior to the scheduled appointment.
- Women should always inform their physician and nurse if there is any possibility that they are pregnant.

The Procedure

- The nurse will take you to the procedure room and stay with you for your entire procedure.
- The nurse or radiologist will review the risks and benefits of the treatment and answer any questions you may have.
- Your leg will be cleaned and numbed.
- You will feel a slight pin prick when the local anesthetic is injected.



- It is normal to feel slight pressure when the catheter is inserted into the vein.
- Injection of the local anesthetic around the abnormal vein is the most bothersome part of the procedure because it usually requires multiple injections along the vein. This usually takes 5-10 minutes to complete. The actual closure of the vein with the heat is usually not painful.



Aftercare Instructions

- A follow up appointment will be made within one week of the procedure. At this appointment an ultrasound of the leg treated will be performed. This is necessary to check for the effectiveness of the treatment, and to look for deep vein clot.
- A 4 week follow up appointment will be scheduled.
- Keep leg elevated whenever sitting.
- Day of surgery: Resume normal activities except as mentioned below:
 - Activity: Be up walking hourly during the day for the first 5 days following the procedure.
 - Driving a car: Yes, except when taking Tramadol (Ultram) as it is a narcotic.
On long rides, get out and walk hourly)
 - Bathing: Sponge bath only - no shower until after compression hose removal (2-3 days after procedure).
 - Return to work/school: When able
 - Active sports or aerobic exercise: What feels comfortable
 - Lifting/devices/precautions: No heavy squats or leg weight training for 1 week
 - Diet: Resume normal diet
- Medications:
 - Ibuprofen 600 mg 3 times a day
 - This is a very important part of the healing process.
 - Take with food as needed up to 3 times a day. If it upsets stomach, break the tablet in ½ and take ½ with meals.
 - Ibuprofen is an anti-inflammatory which helps alleviate the redness, swelling, and tenderness often associated with thermal ablation.
 - Lortab every 4-6 hours as needed for pain
 - Lortab is a narcotic, therefore do not drive or operate machinery when taking this medication.
 - This medication can cause dizziness and drowsiness.
 - It can be taken along with Ibuprofen since they are different types of medications.
- Compression hose: Wear compression hose continuously for 2 days, then during the daytime only for two weeks. You may find it beneficial to continue to wear the compression hose during the daytime after the initial 2 weeks as healing can take up to 6 weeks.
- Dressing: A bulky dressing and compression hose will be applied to the treated leg. The dressing and hose should be left on for several hours following the procedure.

- Steri-strips: Steri-strips (brown bandaids) will be placed over the incision sites. There are no stitches used for this procedure.

Call Big Sky Vascular at 406-969-5194 with any questions or problems.