Radiofrequency ablation (RFA) is a safe and effective procedure for treating chronic venous insufficiency (CVI), a medical condition that worsens over time. Varicose veins — enlarged veins that look like bulging cords in the leg — can progress to CVI if left untreated. Radiofrequency ablation, a type of endovenous vein treatment, is a minimally invasive procedure that uses energy to contract veins, causing them to collapse and seal. RFA allows for a quick recovery, and has a 93 percent effectiveness rate after three years national average. Our average effectiveness rate is close to 98 percent.

1. What should I expect during the procedure?

This procedure is routinely and safely performed at the accredited Vein Center at Fox Valley Plastic Surgery. The procedure is relatively painless and is performed in the office as an outpatient procedure under a local or regional anesthetic. Most patients feel almost no pain during the RFA procedure. The RFA procedure takes approximately 45-60 minutes, although patients may normally spend 2 hours at the office due to normal pre- and post-treatment procedures.

A provider inserts the catheter into a vein through a tiny incision below the knee, and treats a 7-centimeter segment of vein with a quick burst of radiofrequency energy, causing the vein to shrink around the catheter. The process is repeated until the entire vein has been sealed from the groin to the knee — the average 45-centimeter vein can be treated in 3-5 minutes.

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2. What do I need to do before my procedure?

Please do:

- Fill the prescription for compression stockings, and practice putting them on before the procedure. Bring them on the day of the procedure.
- Arrange to have a ride home from the office if you are planning on taking Valium, the medicine to relax you.
- Continue taking regular medications.
- Wear loose-fitting pants or sweats because the legs will be wrapped with elastic bandages or compression stockings after the procedure.
- Arrive 15 minutes early to check in and prepare for the procedure. The treatment itself takes 30-60 minutes per leg. Typically, only one laser procedure per leg is necessary.

Please don’t:

- Do not eat 3 hours prior to the procedure. Make your last meal a light one, such as yogurt, fruit, coffee, and juice. Stay away from breads and cereal, which may absorb your medication.
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3. What do I need to do after my treatment?

After the treatment, the leg will be wrapped in compression stockings. Patients are encouraged to walk afterwards. During the first week, avoid air travel or prolonged sitting (such as a long car trip). However, remain active and do not spend too much time in bed during the recovery period since this increases the chance of complications.

Wear the compression stockings continuously for three days, removing them only to shower, or to wash them. Wear them while sleeping. Starting on day 4, wear the compression stockings during the day for the next two weeks. After the two week period, the compression stockings do not need to be worn, but some patients find it more comfortable to continue wearing them.

Typically, patients should elevate the treated limb when not moving to decrease swelling. Keep the incisions clean and dry if there are any. Most patients return to mild activities either immediately or within a day. After three days, patients may participate in more vigorous activities, such as running, biking, or aerobic exercise. Hot baths, swimming, jumping, heavy lifting, and straining are discouraged for the first 3 days.
Any additional restrictions will be given if needed following the procedure if the provider feels it is necessary.

Acetaminophen or 600 mg of ibuprofen may be taken as needed for discomfort. Full recovery will take approximately one to two weeks.

As with any surgical procedure, patients will feel somewhat tired for a few weeks. In addition, the skin will appear discolored and bruised for up to six weeks along the site of the ablation. Rarely, patients may experience some numbness or tingling along the shin and foot. These typically resolve over a couple of months and may last up to a year.

It is normal to have clear or blood tinged drainage for several days from the areas of the leg where the numbing agent was administered.

Schedule a follow up ultrasound examination to assess the treated vein and to check for adverse outcomes. Within one week, the target vein should be successfully closed. The treated vein simply becomes fibrous tissue after treatment. Over time, the vein will gradually be completely absorbed into surrounding tissue.

### 4. What will my legs feel like?

Following the treatment, there may be some pain and burning sensations on the inside of the leg, lasting up to 2 weeks. The leg may also become swollen and reddened along the path of the treated vein. At times, patients may feel a little bit of rope inside the leg, or it may feel tender. Lumps and bumps may develop which is normal and will resolve over a period of months. Patients may feel like they need to stretch the leg; this sensation is the vein starting to shut down. There may be numbness from the knee to the foot, although many people have no numbness at all. This is normal and will resolve over a period of time.

### 5. What are the possible complications?

Generally speaking, this procedure is safe. However, with any procedure there are risks, side effects and the possibility of complications. The risks and complications are dependent upon the sites that are ablated. Since the introducer needles have to go through skin and soft tissues, there will usually be some soreness and occasionally bruising. The veins to be ablated may be near blood vessels or other nerves that can be potentially be damaged. Fortunately, serious complications or side effects are uncommon.

Complications from radiofrequency ablation are rare, but may include:

- **Burns** from the device
- **Mild phlebitis** (redness and tenderness of the skin)
- **Vessel perforation**
- **Deep venous thrombosis**, a very rare complication with a number of procedures
  - Development of a **blood clot** in the treated leg
  - **Numbness or tingling** in the nerves that run along the treated vein
  - **Infection** at an incision site

Patients who notice any type of adverse reaction should call the office immediately.

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(6/2016)