



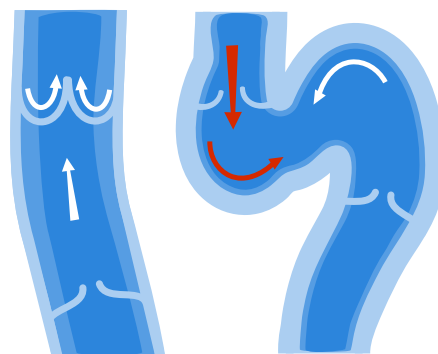
Treatment for venous disease

Backwards flow (or “reflux”) in the superficial veins of the legs can cause pain, fatigue, itching, swelling, and varicose veins. Night-time symptoms include leg cramps and restless legs. Advanced disease can produce skin damage and wounds that do not heal.

Ultrasound is used to identify the source of backwards flow in the veins and develop a personalized treatment plan.

The best symptomatic and cosmetic results are achieved when superficial vein reflux is treated from its source, starting with the main superficial veins of the legs and leaving the skin-level (cosmetic) treatment for last. Using this approach, we can generally achieve an 80% improvement in symptoms and appearance of the legs. Many patients also report improvement in swelling.

Normal vein **Varicose vein**



Treatment of saphenous vein reflux with a catheter ablation procedure

The great and small saphenous travel down the inner leg and back of the leg, respectively. These veins tend to be straight and far from skin and nerves, which allows us to treat them with minimally invasive catheter procedures that are potent and precise.

A catheter is a very thin tube that is inserted into the vein, similar to an IV, through which the doctor can apply heat, a rotating wire, and/or medication. All modalities are about 95% effective in closing the diseased vein. None require a skin incision, so they do not leave a scar.

Treatment of branch vein reflux

Ultrasound-guided foam sclerotherapy is the most common treatment for branches of the saphenous veins and portions of the saphenous veins which cannot be treated with a catheter procedure (e.g. if they are too close to skin or nerves). The veins are localized with ultrasound, then the medication is given through a tiny needle. Several treatments may be needed, as we can only administer a small amount of foam per day. Large or resistant veins may require more than one injection. For very large bulging varicose veins, the doctor may recommend phlebectomy, which is surgical removal of varicose veins through tiny skin incisions. This allows many veins to be treated in one day.

Treatment of spider veins with cosmetic sclerotherapy

Following treatment of the “underlying reflux” with the ultrasound-guided procedures, you may still have some prominent veins at the skin level. These can be treated with cosmetic sclerotherapy.

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Compression stockings

Prior to approval of treatments for vein disease, insurers require you to try compression stockings. Medicare requires a 3-month trial of compression supervised by your treating physician. You should wear the 20-30 mmHg thigh-high stockings for at least a day before treatment to confirm they fit.

What are the adverse effects of treatment?

Patients generally do very well with vein treatments, all of which have a low risk of complications.

- **Aching** over the treated veins is normal. This responds well to walking, ice packs, and antiinflammatory medications such as ibuprofen (Advil, Motrin) or naproxen (Aleve).
- **Bruising** over injection sites is also normal after vein treatment and resolves in about two weeks.
- **Hyperpigmentation** over a vein can occur from blood pigments that are released as the vein is healing. It is more common in patients with large bulging veins and certain complexions. Hyperpigmentation tends to fade over many weeks if you stay out of direct sunlight.
- **Intravascular hematoma** refers to a large varicose vein that becomes firm and tender days to weeks after treatment. This also responds well to ice packs and anti-inflammatory medications. We may also recommend a confirmatory ultrasound and/or offer needle drainage of the trapped blood to alleviate discomfort and minimize skin pigmentation.
- **Deep vein clots** are very uncommon, and usually are limited to patients with poor mobility, advanced age, hormone treatment, and/or genetic tendency for clotting. We monitor all patients with ultrasound throughout treatment so we can detect clots at a very early stage before they cause a symptom. We may recommend surveillance ultrasounds, extra walking, and/or a short course of blood thinners.
- **Numb spot over a treated vein** is another uncommon event after radiofrequency or laser vein ablation. This occurs when a branch of a skin nerve gets stunned during the heat treatment. It tends to improve over several weeks. The nerves that control the movement of the leg and foot are located far from the superficial veins.

What should I do to optimize recovery after treatment?

- **Walking** is essential to optimize recovery and avoid pooling of blood in the legs. You should walk 30 minutes twice daily during treatment and to do other calf exercises throughout the day.
- **Thigh-high compression stockings** must be worn continuously for 72 hours after each treatment and for an additional week during the day after the last treatment. This improves your recovery and reduces complications.
- **No strenuous exercise, hot tubs, or leg massages for two weeks** to allow veins to heal.
- **Avoid airline travel for two weeks** to minimize risk of deep vein clots.

We look forward to helping you achieve your treatment goals!

Please reach us at (858) 550-0330 with any questions.