

**Want to
look and
feel your
best?**

Apart from the discomfort and health risks associated with varicose veins, they detract from your appearance. VNUS® Closure® is a clinically proven, minimally invasive procedure that treats varicose veins and their underlying cause, venous reflux, with little or no pain. Closure patients can walk away from the procedure and be back to everyday activities - either at home or at work - typically within a day.



Pre-treatment



1 week post-treatment
(results may vary)

98%
of patients who have undergone the Closure® procedure would recommend it to friends & family



Calcagno & Rossi
VEIN TREATMENT CENTER LLC

2025 Technology Parkway, Suite 304, Mechanicsburg
717-791-2800 fax 717-791-2828
www.VeinsAre.Us

Radiofrequency Catheter Ablation: An alternative to varicose vein surgery

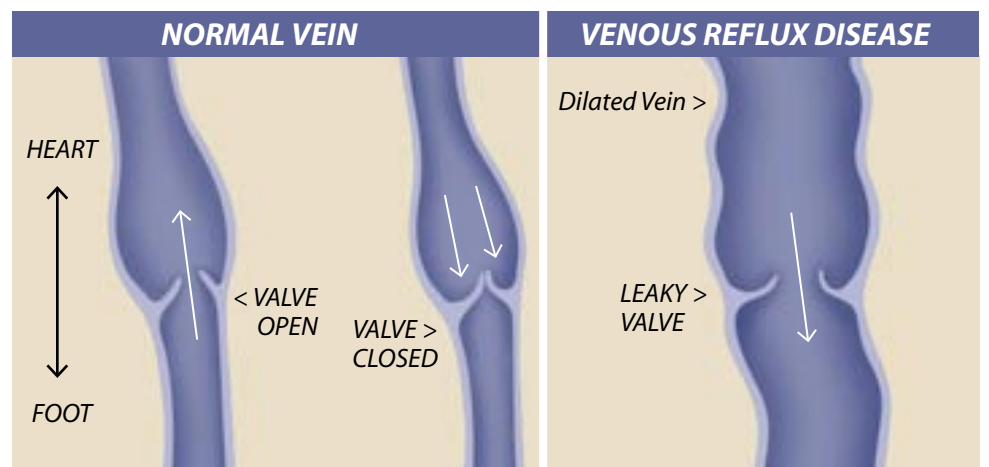
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Varicose veins extensive enough to cause symptoms afflict 25 million Americans, resulting in 2 million lost workdays each year. These uncomfortable veins are usually associated with underlying valve dysfunction in the Saphenous Vein. The Saphenous Vein begins at your ankle and runs up to your groin where it enters the deep vein system. Normally there are valves along the course of your Saphenous Vein which only allow venous blood to travel in the correct direction back up your leg toward your heart. When these valves malfunction the blood can't get up to the heart and exerts pressure on the leg veins causing bulging varicose veins, pain, swelling, and in severe cases ulceration.

For many years the only treatment for this problem was to remove the Saphenous Vein surgically. This procedure, commonly known as "Vein Stripping" involves making an incision in the groin and another incision in the leg. A catheter is then passed through the vein, exiting the skin at each incision. The Saphenous Vein is then disconnected above and below and "stripped" out, sometimes requiring significant force in a motion

akin to pull-starting a lawn mower. Due to the pain involved, the procedure requires general anesthesia. Since the Saphenous Vein has many veins entering it along its course, bleeding occurs resulting in hematoma formation (bruising) following the "stripping" operation.

Recently a new technique has evolved to replace "Vein Stripping". Radiofrequency Catheter Ablation accomplishes the task of eliminating the reflux, or backwash of blood down the Saphenous Vein without having to remove the vein. This procedure is referred to as "VNUS Closure." In the doctor's office, the Saphenous Vein is entered using a small needle (less than a millimeter) in the leg. The Radiofrequency Catheter is then threaded up the vein to the groin where it's location is guided by ultrasound. The Radiofrequency Catheter then causes collapse of the Saphenous Vein through the use of microwave energy. Once the Saphenous Vein is collapsed, blood can no longer cause the high vein pressure thus relieving the bulging varicose veins, pain, and swelling. Because the procedure can be performed through a small needle rather than incisions and the vein is not "stripped", there is no need for general anesthesia and no bleeding or hematoma formation.



A leaky valve allows pooling of blood causing pressure in leg veins. The increased pressure is what may cause surface veins to become varicose.

Radiofrequency Catheter Ablation (VNUS Closure®)



Disposable catheter inserted into vein



Vein warmed and collapses



Catheter withdrawn, closing vein