

New, Minimally Invasive Treatment For Varicose Veins

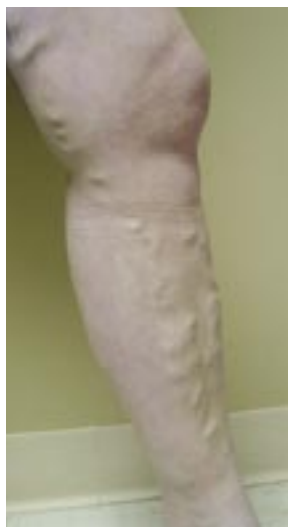


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Less Pain and Shorter Recovery With Closure Procedure

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Venous reflux, the underlying cause of varicose veins, can be more than a cosmetic issue. Affecting 15 to 25% of the adult population, or 20 to 25 million Americans, its symptoms can include aching, tired or weak legs, and burning or itching skin. Chronic venous reflux can cause severe pain, venous eczema, stasis dermatitis, thrombophlebitis, bleeding, lipodermatosclerosis and venous ulcers.



Pre-treatment

Photos courtesy of Michael Vasquez, MD, FACS.



Typical results one week post-treatment*

* Individual results may vary.

Symptoms often decrease when patients periodically elevate their legs, avoid prolonged standing or wear elastic compression stockings. However, when these conservative measures fail, patients often turn to vein stripping, the surgical removal of the problem vein. Ligation and stripping provide effective treatment, but require hospitalization, general anesthesia and a 2 to 6 week recovery, leaving the patient with bruising, hematoma, and postoperative discomfort.

Last year, interventional radiologists at Boulder Community Hospital became the first in Boulder County to

offer a new, minimally invasive treatment option that avoids these complications. The new option, called Closure, is a non-surgical outpatient procedure that uses radiofrequency energy to treat venous reflux.

Venous Reflux In Lower Extremity Veins

To understand how Closure works, it's helpful to first review the cause of venous reflux. Veins of the legs are superficial or deep. Functional one-way valves and muscular contractions keep the flow of blood directed from the superficial veins to the deep veins, and then to the heart.

Venous reflux occurs when a one-way valve closes incorrectly. The incompetent valve allows blood to pool, impairing blood flow to the heart. The increased pressure from blood flowing in the wrong direction then stretches and distorts the superficial vein. The superficial vein "sumps" blood from the deep system, and the vein becomes completely dysfunctional. Ablation of the vein can stop this recirculation pathway.

Superficial venous reflux is quite common and a major cause of varicose veins. It's estimated that 72% of women and 42% of men experience varicose veins by the time they reach their 60s.

The Closure Procedure

The Closure procedure eliminates venous reflux by occluding problem saphenous veins. The refluxing superficial vein is accessed through a small incision of a few millimeters near the knee or ankle. Using ultrasound guidance, the tip of the Closure catheter is placed near the junction of the deep system. Once in the proper location, the catheter delivers radiofrequency heat to the vein wall, causing it to shrink and seal shut. Symptoms improve promptly. Blood continues to return to the heart through other functioning veins.

Closure is a one-hour treatment, performed under local anesthesia. The patient walks out afterward and resumes normal activities.

Clinical Results

The Closure procedure was first used in Europe six years ago and introduced in the U.S. a year later. As of March 2003, more than 40,000 procedures have been performed worldwide. Randomized trials show that patients treated with Closure experience less post-operative pain, shorter recovery time, and faster return to normal activities than patients undergoing vein stripping.

More recently, published studies found that at 12 and 24 months following the Closure procedure, 90% of treated veins remained reflux free. In addition, interna-

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tional, multi-center registry results from VNUS Medical Technologies, the developer of the Closure system, demonstrate a highly effective, stable outcome after four years. Of the patients followed, 94.1% remained reflux-free at follow-up four years out.

Initial Assessment

Patients are evaluated by Doppler ultrasound to decide if they are candidates for radiofrequency closure. Options for treatment (RF closure, surgery, injection sclerotherapy, compression stockings) are reviewed

with the patient at the conclusion of the ultrasound examination.

Insurance Reimbursement

Medical need must be documented to obtain insurance coverage. Patients wishing the procedure for cosmetic reasons would pay for it directly.

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