

# You're So Vein, You Probably Think This Article is About You!

BY VICTOR A. MEDINA, MD



Varicose veins ... gotta hate 'em! They are usually ugly, painful, and just down right irritating. So what are they, and what causes them? And more importantly, what can be done about them? Let's get down to the basics.

The active flow of blood from the heart to the body and back to the heart is called circulation. Blood vessels are responsible for carrying blood throughout the body. Arteries are those vessels that deliver blood to the body (away from the heart). Veins are the vessels that return blood to the heart. Veins have cup-like flaps within the walls called valves. These valves are equally spaced throughout the veins and open upward to allow blood to move up the vein. The valves open when muscle contracts—thus squeezing the blood upward—and close when muscle relaxes, keeping blood from falling back down the vein.

Varicose veins are damaged veins in which blood flows in both directions, diminishing blood flow back to the heart. In addition, the weak or injured valves are not able to support the blood flow when muscle relaxes, resulting in distention and pooling of blood within the vein. This pooling leads to increased pressure on the valves, which further distends the vessel wall causing more separation of the valve leaflets. This vicious cycle results in the conditions known as venous insufficiency and varicose veins.

The appearance of varicose veins can range from visible “roadmaps” of veins on the legs to bulging, ropy



*The radio frequency generator and a GE ultrasound machine.*

veins. The tiny superficial reddish or purple bursts seen at the ankles, knees, and thighs are known as spider veins (telangiectasias). Spider veins typically cause no symptoms and are primarily a cosmetic issue, unless they are a direct result of underlying venous insufficiency.

Varicose veins and the faulty valve condition are often hereditary and inevitably become more problematic over time. Pregnancy may exacerbate the conditions. As a result, symptoms may progress to swelling (edema) of the legs and ankles, causing heavy, tired, aching legs. There may also be localized tenderness, burning, itching, and pressure-like sensation

to the area of the veins. In addition, you may develop a superficial blood clot (phlebitis), with symptoms of increased warmth, redness (erythema), and pain. Chronically untreated varicose veins associated with recurrent bouts of phlebitis may lead to irreversible leg discoloration (browning), swelling, and skin ulcers that are painful and difficult to heal. Varicose veins are therefore more than just a cosmetic problem. They are symptomatic manifestations of venous disease.

Venous disease can affect men and women of all ages. Over 65 percent of adult women and 10-20 percent of adult men have visible varicosities, while nearly 20 percent of all working adults suffer from chronic venous insufficiency. Although uncommon, some adolescents with a strong family history of varicose veins have been found to have incompetent venous valves. Certain health conditions and lifestyle habits increase the chances of developing a problem. Heredity, surgery, injury, and pregnancy are risk factors that are not under direct control, and hormonal fluctuations during the menstrual cycle may also explain why symptoms of venous insufficiency are sometimes more prominent on the first day of a woman's cycle. Other factors, however, may be controlled such as being overweight, not exercising, and prolonged standing. Persons with “vertical” careers such as nursing or teaching are particularly at risk.

*continued on page 17*

## Veins *continued from page 8*

You can usually decrease the burden on your veins and reduce your symptoms by increasing low impact exercise and by losing excess weight. The association of leg swelling and prolonged standing may be alleviated by elevating your legs as frequently as possible and by wearing prescribed graduated compression stockings. Exercise itself without adequate stocking support will aggravate the condition. Prescription stockings should be worn during the second and third trimester of pregnancy if the condition is pre-existing.

There are two options for treating varicose veins: sclerotherapy and surgery. To obtain an accurate diagnosis and treatment for a possible venous disorder you should undergo a complete vascular examination, followed by an ultrasound. Depending on the extent of your venous disease, the vascular surgeon will recommend supportive treatment, sclerotherapy, surgery, or a combination of these.

If sclerotherapy alone is recommended, you can expect to undergo injection of a medicine directly into the varicosity. The medicine closes the damaged veins. The blood is then directed to other nearby healthy veins. The doctor will perform the injections and advise you with specific post-injection instructions. Following the procedure you may drive yourself home. Sclerotherapy is very effective for the treatment of spider veins. The larger veins may also be successfully treated with sclerotherapy, either alone or in combination with surgery. A vascular surgeon with an interest and training in venous diseases performs both sclerotherapy and surgery.

The results of sclerotherapy typically will become evident in two to twelve weeks. The vessels, after being closed off, will gradually fade away. Some bruising may initially occur, but shall clear. The degree to which your particular veins “fade” depends on such factors as size, chronicity, the sclerosing agent, and the individual’s own healing ability. Upon completion of the sclerotherapy course you should obtain relief from the once varicose veins.

For some conditions your surgeon will

recommend a combination of surgery and sclerotherapy. In this situation surgical intervention will be carried out first, followed by sclerotherapy at a later time. In years past, the only surgical option for patients with severe varicose veins was a painful procedure called vein stripping. Today, however, there are minimally invasive procedures that utilize catheters that close the diseased vein from within. The surgeon pulls the device slowly through the vein, and bursts of energy are delivered via an electrode to heat and contract the vein walls. Once the superficial diseased vessel is sealed, blood flow remains within the deep veins and is no longer routed to the outside veins. Catheter devices fall into two categories: radiofrequency (RF) devices and lasers. Both are fast and effective, but laser procedures historically cause more bruising and take longer for the patient to return to normal activity. An RF device is easier on the patient because it operates at far cooler temperatures and seals the vein with virtually no discomfort to the patient. The procedure can be performed in the office with a local anesthetic and the patient is in and out in less than an hour, usually resuming normal activity the next day. Leg pain and heaviness disappear almost immediately, visible changes are evident in a few weeks and, in our experience, the recurrence rate from RF is extremely low. The degree of bruising following surgery is proportionate to the extent of surgery. Postoperative discomfort is readily controlled with medication and usually lasts a couple of days following surgery.

Advances in the treatment of venous insufficiency in the 21st century have provided curative and definitive therapies for persons with varicose veins, who otherwise would be resigned to living with a chronic, non-healing disease.

*Dr. Victor A. Medina, a fellowship-trained vascular surgeon, was the first in the Cary/Raleigh area to offer an alternative to painful vein stripping, and for the past 22 years at the Triangle Vein Clinic has provided advanced treatment for venous disease. His procedures have been featured on local CBS, ABC, and NBC television channels.*

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## Superfood *continued from page 17*

the supplement. In order to minimize this, try a higher-quality supplement, look for enteric-coated capsules, take fish oil capsules with food or freeze the capsules.

Fish oil supplements should always be kept away from sunlight and heat, and the bottle should always be kept tightly closed.

Another option is to switch to a spoonable fish oil versus the capsule such as

Coromega, an orange-flavored gel, or Barlean’s Omega Swirl, which has a fruit smoothie taste and consistency.

*Amy Bowen RD, LDN, a clinical dietitian at WakeMed Cary Hospital, and Stacy Kropp, a dietitian in WakeMed’s Corporate and Community Health Department, contributed to this story. Learn more about WakeMed’s nutrition services, and take charge of your health today.*