Get a Leg Up

On the Competition

By Randy Rudderman, M.D., FACS, co-founder of OH2 Medical Spa

Joe Overhead stands at the tennis net with John Topspin, who looks down at his legs. "I really need to get these legs taken care of," John says. "You have no idea how much pain, itching and swelling I have had in my legs over the past 10 years."

"I thought the only way to get rid of varicose veins was to have your legs stripped," says Joe. "Just the sound of that procedure makes me think it will hurt and keep you out of the game for weeks."

"I had the same perception as you, until I spoke with my neighbor who is a physician," says John. "He had his varicose veins treated with a laser fiber, was back working in the operating room the next day, and he beat me two out of three sets the following weekend."

John decided to do a little more research about varicose veins and what his potential options were regarding treatment. After meeting with doctors, John discovered the underlying cause of his varicose veins and was able to decide what the best treatment options were for him, and how they would eliminate both his varicose and spider veins and get him back on the court with limited down time.

John's wife Jill accompanied him during the consultation. She had developed visible veins during her first pregnancy, and after her second child, really had some impressive visible veins that were beginning to ache after a long day of working on her feet. Jill had almost entirely given up tennis, did not like to wear bathing suits and would play golf with her friends and husband only if it was cool enough to wear long pants. She was looking for a way back to her former lifestyle and certainly did not have the time for surgery. She needed practical, understandable options to consider.

According to the Mayo Clinic, venous reflux disease affects 40 percent of women and 25 percent of men. Vascular surgeons estimate that the disease impacts 10 to 20 percent of American women in their 20s. As people age, the incidence of varicose veins becomes higher. For example, it impacts 30 percent of women in their 30s and 40 percent of women in their 40s. So, by the time women hit their 50s, at least half of them suffer from the condition, and it affects at least two-thirds of women in their 60s. The condition affects men about 50 percent less than it does women, and it is more common among Caucasians than African Americans and Asians.

Varicose veins are a very common problem, generally appearing as twisting, bulging rope-like cords on the legs, anywhere from the groin to the ankle. Spider veins are smaller, flatter, red or purple veins closer to the skin's surface. While many people have heard about varicose veins, very few truly understand their underlying cause and the potential they have for developing into a serious medical issue. There are a number of factors that can lead to varicose veins, including:

HEREDITY – One of the most important factors. If your parents and grandparents had the problem, you are at an

increased risk.

GENDER – Women have a higher incidence of varicose vein disease due in part to female hormones and their effect on the vein walls.

PREGNANCY – Blood volume increases during pregnancy and hormonal effects contribute to vein enlargement.

AGE – The tissues of our vein walls lose elasticity as we age, causing the valve system to fail.

The following additional factors, while not directly linked to the formation of varicose veins, may speed up the development of the disease and make the veins worse:

PROLONGED STANDING – Occupations that involve standing for a long period of time cause increased volume and pressure of blood in the lower limbs due to the effects of gravity.

OBESITY – Increases in weight often increase abdominal pressure, which may worsen vein problems.

HORMONE LEVELS – Treatments like birth control pills and post-menopausal hormone replacement may cause the same hormonal effect as pregnancy.

PHYSICAL TRAUMA – Injury to the lower limbs can damage underlying blood vessels and add to the problem.

WHAT ARE THE SYMPTOMS? WILL THEY GET WORSE?

In addition to the visual appearance, many patients may experience one or more of the following leg symptoms:

- Pain (an aching or cramping feeling)
- Heaviness/Tiredness
- Burning or tingling sensations
- Swelling/Throbbing
- Tender areas around the veins
- Symptoms that mimic restless leg syndrome

As vein disease progresses over time, more severe symptoms can develop, including:

- Inflammation (phlebitis)
- Blood clots (e.g., DVT)
- Ankle sores or skin ulcers
- Bleeding

These problems not only require treatment, they are also associated with significant down time from work and recreation.

HOW VARICOSE VEINS OCCUR

Arteries carry blood from your heart out to your extremities, delivering oxygen deep into the tissue. Veins then return the 'de-oxygenated' blood (now blue) back to your heart to be re-circulated.

To return this blood to the heart, your leg veins must work against gravity. Small, one-way valves in the veins open to allow blood to flow upward, toward the heart, and then close to prevent it from flowing backward.

Varicose veins occur when the valves in superficial leg veins malfunction. When this occurs, the valve may be unable to close, allowing blood that should be moving toward the heart to flow backward, called venous reflux. Blood collects in your lower veins, causing them to enlarge and become varicose. As the back flow increases, more veins near the surface may begin to dilate, becoming visible. These dilating veins are often associated with feelings of heaviness, itching, soreness or pain. Many patients will have a vague sensation of 'feeling bad,' and will get up to walk, move their legs around, or elevate their legs to begin to feel better. Wearing support hose can help the symptoms, but will not repair the damage once reflux begins.

Can varicose veins be prevented? The underlying conditions described above usually make 'curing' varicose veins impossible, however certain measures may help relieve discomfort from existing varicose veins and prevent others from arising:

- Exercise regularly (walking is ideal)
- Avoid standing or sitting for long periods of time
- Control weight

Since the above measures do not treat the underlying cause of the disease, varicose veins will usually enlarge and worsen over time. Legs and feet may begin to swell and sensations of pain, heaviness, burning or tenderness may occur. If and when this happens, you should seek advice and evaluation for possible treatment options.

TREATMENT ALTERNATIVES FOR VARICOSE VEINS

Your physician will usually try methods that don't involve surgery first to relieve

your symptoms. These may include supportive techniques or the use of compression stockings. If your varicose veins do not respond to conservative therapy, more active treatment may be required. New minimally invasive techniques like endovenous laser treatment (EVLT) now allow effective treatment of varicose veins with no hospital stay, no scarring, minimal postoperative discomfort and nearly immediate relief from your symptoms.

CONSERVATIVE MANAGEMENT (STOCKINGS) Elastic stockings will squeeze your veins and attempt to stop excess blood from flowing backward. You may need to wear compression stockings daily for the rest of your life. Those with significant reflux will often note that their legs begin to feel bad just getting out of bed in the morning without their stockings. Others will note that they have tired, aching legs at the end of the day that just do not feel better until they are elevated.

DOPPLER ULTRASOUND EXAMINATION Most patients with leg symptoms, and many with visible varicose veins, will undergo ultrasound examination to determine the extent of their problem. An ultrasound transducer, the size of a cell phone, is held to your skin to detect vessels in your tissue. The Doppler component allows the technician to determine if the blood is flowing toward your heart, and if

the venous blood is flowing back toward your feet. This backward flow is called reflux and is associated with the faulty valves contributing to varicose veins. A good technician should accurately diagnose your problem and show you these findings on the ultrasound screen so that you can begin to understand your condition.

If no reflux is found, injections alone may significantly help reduce the signs and visible findings. If reflux is found, the options for treatment may include deeper injections, or procedures such as EVLT.

SCLEROTHERAPY This procedure is the treatment of choice for spider veins or smaller varicose veins. Your physician will inject a chemical directly into your problem veins, causing them to close. These veins will eventually be absorbed by your body. Some stinging or itching at the site of the injection may occur.

LASER ENDOVENOUS ABLATION (EVLT) This minimally invasive procedure offers the latest advance in the treatment of varicose veins and has supplanted surgery as the 'gold standard' for treating varicose veins. The endovenous laser procedure offers superior results with minimal side effects. Advantages include a 45-minute office procedure, local anesthetic, a very high success rate (93 to 98 percent), no scarring, no hospitalization, lower risk of complications, a faster return to normal activities (normally one to two days after the procedure) and is reimbursable by most health insurance plans.

Using ultrasound, the physician will insert a very small catheter into the affected vein (usually below the knee) and advance it up toward the thigh. An energy source like laser fiber is inserted through the catheter and fired to cause damage to the internal vein wall, causing it to seal down on itself. The closed vein will eventually be absorbed by the body. Patients are generally encouraged to walk immediately after the procedure and are able to resume normal activities (aside from heavy lifting) the next day. Activities including tennis, golf and jogging can be resumed as long as you wear the compression hose for the first three weeks, depending on your treatment.

SURGERY (LIGATION AND STRIPPING) Use of traditional surgery is decreasing due to the effectiveness of minimally invasive procedures. Surgery can be quite painful, has a long recovery time, and is associated with recurrence rates of 10 to 25 percent. It is generally performed in an operating room, often with general anesthesia, and involves two or more large incisions at the groin and knee. The vein is tied off, cut and then stripped (from other attached tributaries) out of the leg. Bruising and swelling often occur post-procedure and nerve tissues surrounding the treated vein can be damaged, causing numbness or burning around the surgical scar. There is also a prolonged recovery, including restrictions from exercise—often for six weeks or longer.

SIDE EFFECTS AND COMPLICATIONS Minimally invasive procedures may have some side effects, including some slight bruising, which commonly disappear within the first few weeks. With laser treatment, you will feel a delayed tightness or "pulling" sensation four to seven days after treatment, which is normal and expected following a successful treatment. All surgical procedures involve some element of risk and have the potential for complications. Potential complications include, but are not limited to, vessel perforation, thrombosis, pulmonary embolism, phlebitis, hematoma, ecchymosis, paresthesia, skin burn and infection. You should discuss your risks and potential benefits with your physician prior to beginning any treatment.

DON'T I NEED MY SUPERFICIAL VEIN(S)? Venous reflux (faulty valves) in the greater saphenous or other superficial veins actually interferes with the normal venous return of blood. Closing or removing these areas improves venous circulation as blood is diverted to normal veins with functional valves. The resulting improvement in venous circulation significantly relieves symptoms and improves appearance.

ADJUNCTIVE TREATMENTS

To achieve optimal cosmetic outcomes, occasionally adjunctive treatments such as Sclerotherapy or Micro-Phlebectomy may be performed at the same time or following a minimally invasive or surgical procedure. Micro-phlebectomy involves removing a very small vein segment and is occasionally performed following deep sclerosis or EVLT. These procedures are performed using local anesthesia, with minimal down time from full-body exercise.

Venous disease is common and is commonly misdiagnosed and poorly understood. The treatments today are very sophisticated, and an accurate diagnosis and complete review of available options provides for the best chance of long term results. Seeking a reputable, knowledgeable physician is the first step in reaching your goal. Feeling better, looking better and returning to pastimes that are important parts of your life shared with friends and family can be safely and reliably achieved. You can improve your life and your health, and maybe even your game.

For more information on OH2 Medical Spa or its physicians, Dr. Randy Rudderman, MD, FACS, and Dr. Darrell Caudill, MD, FACS, visit oh2medicalspa.com or call 678.367.0737.