

Conditions – Varicose Veins, Georgia

Unsightly varicose veins are common, under diagnosed, under treated, and get worse without care. They are visible, tortuous, and enlarged superficial veins beneath the skin's surface which are 3 mm or larger in diameter. Varicose veins are more common in the legs because gravity in the standing and sitting position increases the pressure on the superficial veins.

Veins return blood to the heart and lungs via a system of pipes, pumps, and valves. They work together in a coordinated effort for optimum venous return. If the pipes, pumps or valves malfunction and their ability to compensate is exceeded, vein disease develops. When the veins are large enough to be seen or felt, they are known as varicose veins.

One of the reasons vein disease is under diagnosed is the vague nature of its symptoms. Symptoms can include swelling, pain, cramping, heaviness, fatigue, itching, restless leg syndrome, and burning. In severe cases, varicose veins may cause skin changes, ankle discoloration, and skin ulcerations.

The pipes or veins serve as conduits for venous flow. There are three types of veins in the legs—the deep and superficial veins and the perforator veins (which connect the deep and superficial veins). The venous blood returns via the superficial into the deep system which carries most of the venous blood. Anything which damages the veins exposes them to the effects of gravity and varicose veins develop in branches of the superficial venous system when they are exposed to reflux.

The heart pumps arterial blood to the body supplying oxygen and nutrients. The veins return this used blood to the heart. Two venous pumps propel blood up the legs against gravity. The foot pump is a sponge like plexus of veins in the arch of the foot which, when squeezed by walking, pumps blood up the leg veins. The calf pump accounts for over 60 percent of the pumping mechanism. The calf muscles act like a bellows pumping blood up the leg veins with each muscular contraction. Anything which affects walking or the calf muscles diminishes the venous pump, allowing venous blood to pool in the legs. The pooling of venous blood increases the risk of blood clots, leg swelling, varicose, and spider veins.

Another aid to venous blood flow is breathing. Normal breathing creates phasic flow in leg veins. With a deep breath or inspiration, the pressure in the abdomen increases and venous blood flow from the legs slows. As we exhale, the pressure in the abdomen decreases and venous blood return increases. Anything that increases abdominal pressure slows venous blood return.

The deep, superficial and perforator veins have delicate one way check valves. These valves open to allow blood to flow up the veins when the pumps are activated and close to prevent reversal of flow down the veins when the pumps are deactivated. Defective check valves are a common cause of vein disease. If the check valves are broken, refluxing blood pools in the leg veins, stretching the elastic walls of the veins leading to progressive damage and the development of vein disease. When the veins are large enough to be seen or felt, they are known as varicose veins.

Contributing Factors for Varicose Veins

- Heredity – genetics is the number one factor associated with developing vein problems
- Gender – women are more likely than men to suffer from varicose veins

- Pregnancy – the risks increase with each pregnancy
- Activity or occupation – sitting or standing occupations increase the risks of varicose veins
- Other factors include aging, obesity, and injury

Treatment for Varicose Veins

You want a simple, proven, and affordable treatment for the varicose veins. Our goal is to provide that and more in the comfort of our welcoming outpatient setting. Treatments for varicose veins are completed under a gentle local anesthesia with a mild oral sedation when needed. We offer minimally invasive treatments for varicose veins, including Closure or the Venefit Targeted Endovenous Therapy (Laser or Radiofrequency), Ambulatory Phlebectomy, Sclerotherapy for Bulging Varicose Veins, VenaSeal, and Varithena. These treatments meet our requirement for a quick recovery, minimal pain, and little to no scarring or down time.

In our society we are bombarded every day with thousands of messages. It can be difficult to sift through the marketing to determine the best person or practice to provide the care we want and need. How do you make such an important decision? Knowing that all things are not equal, most of us turn to someone we trust for a recommendation. Patients including their family and friends and physicians are our biggest sources of referrals. What a compliment!

If you are looking for an experienced vein specialist, Dr. Kenneth Harper has treated thousands of patients with vein disease. In 1997 he created the first dedicated vein practice in the area, entering the field of phlebology before it was the popular thing to do. He has surrounded himself with a team who understand his vision of providing world class vein care with a passion for excellence.

Dr. Harper understands that the pursuit of excellence is a lifelong process on a personal level, as a physician. He is board certified by the American Board of Surgery, is a diplomat of the American Board of Phlebology, and has added credentials for venous ultrasound and interpretation (RPhS and RPVI). In 2000, he was the first physician in Georgia to offer Endovenous procedures and has performed over 7,000 Endovenous Closure and Laser procedures. If you count all vein procedures the number tops out at over 14,000.

His personal pursuit of excellence carries over into the practice philosophy of providing outstanding service and outcomes for each patient who chooses Vein Specialists of the South. This philosophy is reflected in our Guiding Principles and is one of the reasons that our patients enjoy sharing their experience with family and friends. It is also why the staff at VSS consider the practice to be family and a sought after position in the area. From the business staff to the clinical, our goal is continuous process improvement. In 2012 we were one of the first medical practices in the state to enter into a Lean Six Sigma program of process improvement under the direction of consultants from Georgia Tech.

Research and innovations in the field of phlebology are an interest for Dr. Harper. He was recognized at the 2007 American College of Phlebology with the Platinum abstract award on the *Impact of Mandatory Compression Hose on Chronic Venous Disease*. At the same meeting he authored a poster on *Computer Modeling for Endovenous Procedures* which was selected for an award. Dr. Harper is currently working on a number of innovations in the field of phlebology which he hopes will lead to advances in clinical care.