

South Coast Vein Care
Specialists in Interventional Medicine

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Varicose Vein Information Sheet

PREVALENCE OF THE PROBLEM:

In the United States approximately 80 million adults have varicose and “spider” (telangiectasias) veins of the legs. These veins can cause pain and discomfort in addition to cosmetic concerns.

HOW VEINS WORK:

Veins are the blood vessels responsible for returning deoxygenated blood to the heart. In the legs the blood must flow upward through the veins against gravity. When you walk, the muscles in the calf of the leg contract, which help “milk” or pump the blood upward in the direction of your heart. Veins have valves. When the blood is flowing toward the heart, the valves are open. When you sit or stand, gravity pulls the blood downward toward the ground. The valves should then close preventing reflux (backward flow of blood).

WHAT ARE VERICOSE VEINS?:

Varicose veins are the abnormal superficial veins that develop in the soft tissue beneath the skin. The veins appear swollen and knotted. The veins are similar to empty water balloons, in that when they are forced to carry more blood, because of leaking valves, become distended and tortuous. These veins are abnormal and do not transport blood back to the heart efficiently; therefore, they can be removed without causing problems and in fact improve the venous circulation.

DIFFERENT TYPES OF VEINS:

- ***Deep veins*** – These veins are located deep in the leg between muscle and fascia (tough fibrous tissue). They are responsible for returning 90-95% of the venous blood back to the heart.
- ***Perforating veins*** – These veins link the deep and superficial veins together.
- ***Superficial veins*** – These veins are usually affected by varicosities because they have varicose. They drain the blood from the skin and are also responsible for blood storage. When these veins become varicose they can appear engorged and distended. This group also includes reticular veins and “spider” veins. Reticular veins are small blue veins often seen through the skin. These are often the cause of “spider” veins, which are the tiniest blue purple veins seen in the skin.

CAUSES OF VARICOSE VEINS:

- Many factors play a part in the development of varicose veins:
- ***Heredity*** – There is a significant relationship between heredity and the development of varicose veins and “spider” veins. If your mother or father has varicose veins or “spider” veins there is a greater likelihood you will develop these abnormal veins.
 - ***Age*** – the development of varicose veins and “spider” veins can occur at any age but usually occurs between the ages of 18 and 35 years, and peaks between 50 and 60 years.

- Gender – females are affected approximately four to one to males.
- *Pregnancy* – during pregnancy varicose veins may form but may also disappear shortly after the delivery of the baby. The incidence of varicose veins during pregnancy is approximately 8%-20%. Two different effects occur during pregnancy. First, the enlarged uterus tends to compress or obstruct veins in the pelvic area. This causes the veins in the leg to become distended and noticeable. Second, hormone changes during pregnancy can also affect the vein wall causing distention and valve damage.
- *Lifestyle and Occupation* – people who are involved with prolonged sitting or standing in their daily activities have an increased risk of developing varicose veins. Thus, the weight of the blood continuously pressing against the closed valves causes them to fail, leading to distention in the veins.

SYMPTOMS:

The development of varicose veins is usually gradual and progressive. They not only cause a cosmetic concern, but also approximately 50% of those with varicose leg veins are bothered by symptoms such as:

- Feelings of leg fatigue, aches, burning and pains especially after prolonged standing
- Night cramps
- Leg and ankle swelling
- Increase in symptoms during the menstrual cycle
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TREATMENT:

- Elevate your legs when possible, keeping your feet positioned higher than your heart level.
- Exercise daily. Walking, climbing stairs, cycling and swimming keep your calf muscles in motion to activate the calf muscle pump.
- Move your legs frequently. Flexing your ankles periodically will pump the blood out of your legs (simulating walking). During periods of prolonged sitting or standing flex your ankles 10 times and repeat this every 10 minutes. Try to avoid sitting for extended periods throughout your day.
- Support compression hose. This provides external graduated counter pressure to aid in venous blood flow to the heart.
- Sclerotherapy.
- Laser/Light Therapy.
- Surgery.

PREVENTION:

- Elevate your legs and exercise as described above.
- Maintain your ideal body weight to reduce excess pressure on your legs.
- Avoid prolonged sitting and standing. On long car or plane trips activate your calf muscle pump by moving your feet up and down frequently as described above. You should also consider stopping for short walks every few hours.
- Support compression hose as above.

INDICATIONS FOR SURGERY:

- To achieve desired cosmetic results by removing large bulging varicosity branches.
- To relieve symptoms of aching pain from large varicosities.
- To prevent recurrent episodes of superficial thrombophlebitis, bleeding and ulceration of the varicosities.
- To stop the extension of thrombosis from superficial vein into deep vein.

Surgery is NOT INDICATED for the treatment of small varicose or “spider” (telangectasias) veins. Surgery is indicated to treat underlying problems and then sclerotherapy can be used later to improve the cosmetic appearance caused by small varicose veins and “spider” veins.

THE GOAL OF SURGERY:

- Removal of varicosities.
- Achieve the best cosmetic results with minimal scarring.
- Relieve symptoms.
- Avoid complications.
- Decrease recurrence of varicose veins.

POST-OPERATIVE EXPECTATIONS:

After surgery you can expect bruising and firm “knots” in the areas where varicose veins were removed. This will vary in intensity from patient to patient. This may take up to six weeks to totally fade and resolve. You may develop temporary swelling in your operative leg and foot. Swelling is best controlled by elevation of your leg above heart level, and avoidance of prolonged sitting and standing for one or two weeks post-operatively.

Incision healing should be complete in three to six weeks. Incisions gradually soften and lighten in color. You should apply sunscreen to your incisions as needed for six months after surgery to avoid darkening of incisions.

Pain associated with the operation varies from patient to patient. The majority of patients experience mild to moderate pain, which is controlled with oral pain medication. Most patients require pain medication for one to three days post-operatively.

If you work outside of the home, it is recommended that you plan to be off work for a minimum of 3 days up to one week. This will allow you time to rest as needed and to elevate your leg to control swelling. Walking is encouraged immediately after surgery. The day after surgery you should take at least six walks throughout the day. You should increase your walking on a daily basis. You should gently stretch your leg after surgery to avoid muscle stiffness. More vigorous activity should be avoided for approximately one to two weeks as tolerated. We recommend that you slowly resume other vigorous activities and increase them as tolerated. You may climb stairs immediately after surgery. Driving an automobile should be avoided until you feel “safe” to operate a car and when you are not taking pain medication. **Please keep in mind everyone recovers from an operation at a different pace.**

If you had a Closure of Laser procedure, you will be scheduled for a “post-op duplex” scan and appointment 5-7 days after surgery. The purpose of this appointment is to assess the closure status of the vein, and to discuss any questions you may have about your operation. If you have any questions or concerns do not hesitate to call our office.

TERMINOLOGY:

LIGATION – to surgically tie off a vein with suture. Common areas to ligate are the saphenofemoral junction (in the groin area) or the saphenopopliteal junction (behind the knee).

STRIPPING – to remove significant lengths of large veins and incompetent branches by the making of small incision and using a “stripper” to pull the vein out.

ABLATION – A minimally invasive procedure that uses heat to treat a problem vein. Either radiofrequency (Closure) or laser (EVLT) delivers a heat source into the vein by use of a thin catheter which seals the vein.

PHLEBECTOMY – the excision (removal by cutting) of a vein or segment of a vein.

SAPHENOFEMORAL JUNCTION – the point (in the groin area) where the greater saphenous vein (superficial system) joins the femoral vein (deep system).

GREATER (LONG) SAPHENOUS VEIN – the term saphenous is derived from the Greek word for “visible”. This vein starts on the top of the foot and proceeds up the inside of the leg to the groin area.

SAPHENOPOPLITEAL JUNCTION – this is the point (behind the knee) where the lesser saphenous vein (superficial system) joins the popliteal vein (deep system).

LESSER (SHORT/SMALL) SAPHENOUS VEIN – this superficial vein starts on the outside aspect of the foot and runs up the back of the leg below the knee. Communication into the deep popliteal vein and greater saphenous vein occurs just above the knee area.

INCOMPETENT PERFORATING VEIN – these veins help to carry blood from the superficial veins to the deep veins. When incompetent they do not close properly and blood does not move efficiently.

RISKS OF SURGERY:

Your surgeon will discuss the risks of your operation with you in detail. If you have any questions please do not hesitate to ask. It is critical that you feel comfortable with your surgeon and proposed surgery.

ANESTHESIA:

If your procedure is done in the hospital or surgery center, you will meet your anesthesiologist the day of surgery and he/she will discuss your anesthetic history and risks. The types of anesthetics that can be used are: “local”, “general”, or an “epidural”. The majority of our patients who have surgery done at the hospital request a “general” anesthetic. If surgery is performed in our office you will take a sedative one half hour prior to the procedure and a local anesthetic will be given during the surgery.

NAUSEA:

You may experience nausea after venous surgery as a result of “general” anesthetic or in response to your post-operative pain medication. To decrease the chances of experiencing nausea, **abide by the “nothing to eat or drink after midnight”** instruction before surgery. Avoid taking routine medications the morning of surgery that could be taken later that day after surgery. Finally, take your post-operative pain medication with food.

BLEEDING:

The risk of bleeding, defined as significant enough to warrant a transfusion or re-operation is extremely low with venous surgery. You will be observed post-operatively for signs of bleeding. A compression dressing will be applied to minimize bleeding.

INFECTION:

The risk of infection is approximately one to two percent. After surgery you will be instructed on how to care for your incisions. If you have an incision located in your groin area, you will be instructed to keep this covered with dry gauze and to change it daily, for one week. You should report any signs of infection to our office, **i.e. redness, warmth, drainage, or increased incisional tenderness.**

NERVE INJURY:

The saphenous vein is associated with a sensory nerve from the knee to the foot. Other veins may also be located near cutaneous (skin) nerves. Occasionally, in order to perform the surgery in the most cosmetic fashion, the nerve may be injured. This may be temporary or permanent. It does not affect the way you walk or move your foot. However, when you touch your leg or foot it may have a numb or tingling sensation. This usually improves with time.

DEEP VEIN THROMBOSIS:

DVT is the formation of a blood clot in the deep vein. The development of DVT is extremely low, and is best prevented by early and consistent ambulating and avoidance of prolonged sitting and standing for one to two weeks after surgery. Also, **NO FLYING FOR 2 WEEKS AFTER SURGERY.**