VARICOSE VEIN INFORMATION

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 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 helps “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 VARICOSE VEINS? Varicose veins are abnormal superficial veins that develop in the soft tissue beneath the skin. The veins appear swollen and knotted. Varicose veins are similar to empty water balloons. When they are forced to carry more blood, because of leaking valves, they 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 little external support like the deep veins. These veins are visible from the skin when varicose. They drain blood from the skin and are 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” 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. 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/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

TREATMENT

- Elevate your legs when possible, keeping your feet positioned higher than heart level
- Exercise daily. Walking, climbing stairs, cycling and swimming keep your calf muscles in motion to activate your calf muscle pump.
- Move 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.
- Wear support compression hose. This provides external graduated counter-pressure to aid in venous blood flow to the heart.
- Sclerotherapy
• Laser/Light therapy
• Radiofrequency venous ablation
• 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.
• Wear support compression hose as stated above.