

Causes of Vein Disease

Last week, Susan asked me what she could do to prevent her aching, painful varicose veins. I smiled and told her that she should find different parents. Obviously I was joking, but my comment underscores the importance of genetics in venous reflux disease.

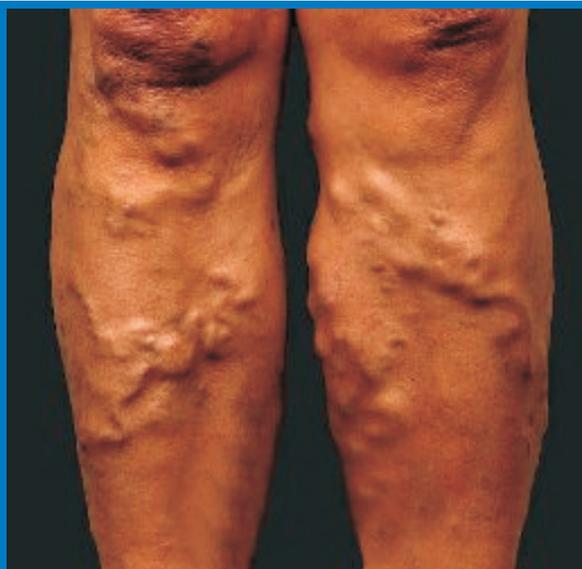
Venous reflux occurs when the fragile tiny valves in our veins fail to close properly - this causes blood to flow abnormally in the reverse direction toward the feet rather than toward the heart. There are a number of reasons that these valves fail to function properly. Uncontrollable factors include family history (genetic risk), age and sex status. Controllable factors include prolonged standing (lack of physical activity), obesity, pregnancy, vein trauma and blood clots.

Both of Susan's parents had painful, bulging varicose veins. Statistically, she has an 89% chance of having varicose veins. If only one of her parents had had varicose veins, her chances of having this condition would be 47%. As we age, our chance of developing varicose veins increases, although both young and elderly patients suffer from venous reflux. Women develop varicose vein much more commonly than men. Unfortunately, we cannot choose our parents, control our age or our sex.

Luckily, there are things we can do to minimize our risk for developing painful varicose veins. Prolonged standing increases the risk of damaging vein valves - it increases pressure that develops in the veins. This increased pressure causes the veins to dilate with subsequent vein valve failure, so actively walking helps to minimize this by pumping blood from the calf muscles back to the heart. Obesity also increases the chance that there will be increased pressure in the veins, so weight loss will help. Female sex hormones, especially during pregnancy, cause veins to dilate and this dilation causes the valve cusps to stretch apart. Gravity

pulls the blood down toward the feet though these stretched valves. During pregnancy, the enlarging uterus places direct pressure on the veins in the pelvis, and this increased pressure impairs flow toward the heart which also causes vein dilation in the legs with valve failure. During pregnancy, graduated compression stockings will help to minimize these effects.

Blood clots can directly damage our fragile vein valves. Inflammation is associated with these blood clots, and this inflammation can permanently damage the valves. Wearing compressions stockings will help to minimize clot formation. Some patients have what is called a genetic thrombophilia, a genetically inherited blood clot-ting problem. Tests can be done to determine if this is the case, and preventative measures can be taken to decrease the risks of blood clots - especially in higher risk situations, like prolonged flight travel. Localized trauma can also directly damage vein valves and cause venous reflux with painful varicose veins. To treat venous reflux disease, we now use minimally-invasive office-based procedures including endovenous thermal ablation, microphlebectomy, and sclerotherapy.



**Painful Varicose Veins
from Venous Reflux Disease**

Stephen J. Hopkins, MD, FACS

For a personal consultation with Dr. Hopkins call 532-5528 to make an appointment. Dr. Hopkins is a General Surgeon, Certified by the American Board of Surgery, and a Phlebologist, Certified by the American Board of Phlebology.

The Mother Lode Vein Institute has offices in Jackson (256-9499) and Sonora (532-5528)

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