

# Varicose Veins:

## Preventable Complications



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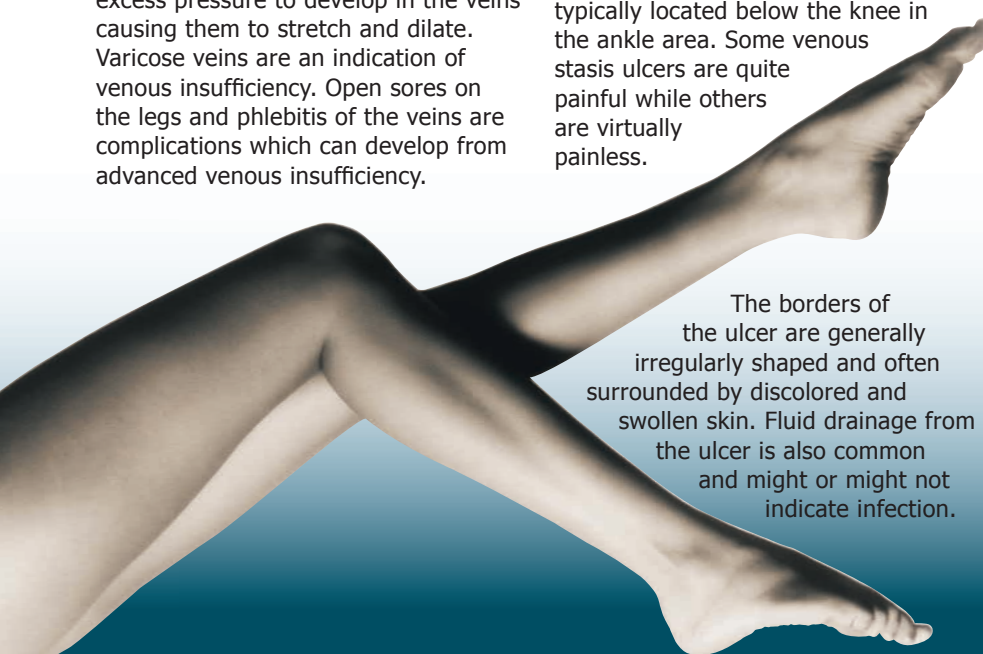
**V**aricose veins, phlebitis and open sores on the legs: What are they? Can they be related?

Veins are blood vessels which return blood to the heart and lungs so it can be re-oxygenated. This means that blood in the veins should move up out of the legs toward the heart. Bulgy varicose veins are an indication that there is blood flowing backward down some veins instead of up toward the heart. This backward flow of blood is called venous reflux or venous insufficiency. Over time, venous insufficiency leads to the pooling of blood in veins. This causes fluid to accumulate in the legs and excess pressure to develop in the veins causing them to stretch and dilate. Varicose veins are an indication of venous insufficiency. Open sores on the legs and phlebitis of the veins are complications which can develop from advanced venous insufficiency.

### What are venous stasis ulcers?

Open sores which develop as a result of venous reflux are referred to as venous stasis ulcers. Fluid accumulation in the legs makes it difficult for the cells in that area to obtain the necessary nutrients or effectively remove the waste products. Gradually the skin in the legs becomes malnourished and fragile. Left untreated, open sores might ultimately develop. Venous stasis ulcers are not a normal part of aging; they are the result of a treatable venous insufficiency disorder.

Venous stasis ulcers are the most common type of ulcers on the lower legs affecting 500,000 to 600,000 Americans annually. These ulcers are typically located below the knee in the ankle area. Some venous stasis ulcers are quite painful while others are virtually painless.



The borders of the ulcer are generally irregularly shaped and often surrounded by discolored and swollen skin. Fluid drainage from the ulcer is also common and might or might not indicate infection.

### What is phlebitis?

Phlebitis, or superficial thrombophlebitis (STP), is a condition in which a blood clot forms in one of the superficial veins of the body causing inflammation and tenderness of the vein. This typically affects the veins in the legs, but can occasionally occur in other areas.

Symptoms of an STP include warmth, redness and tenderness over the affected vein. The vein might also feel firm and cordlike because of the clotted blood inside it. The diagnosis of STP can be confirmed with a duplex ultrasound evaluation of the veins. The duplex ultrasound also is used to evaluate for the presence of a more dangerous deep vein blood clot.

### Are all blood clots the same?

No. There are two systems of veins moving blood up and out of your legs—a deep vein system and a superficial vein system. The deep system veins are of large diameter and situated close to the bone, surrounded

### DVT RISK FACTORS

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by muscle. They are responsible for returning about 90 percent of blood from your legs back to the heart and lungs. The superficial system veins are located in the fat tissue under the skin, and at times are visible. They do not communicate directly with the heart and lungs.

Deep vein thrombosis (DVT), or blood clots which occur in the deep veins, can be a serious condition. The risk is that the blood clot breaks free of the leg veins and travels to the lungs impairing the body's ability to deliver oxygen. Blood clots that occur in the superficial leg veins, or superficial thrombophlebitis (STP), can be quite uncomfortable but pose a much lower risk of breaking free and traveling to the lungs.

In about 40 percent of STP cases, however, there is also a DVT present. For this reason it is extremely important to contact your healthcare provider for a thorough evaluation if you think you might have developed a STP.

### How are venous stasis ulcers, STP and varicose veins related?

The presence of varicose veins is a sign of a venous insufficiency disorder that increases the risk of developing STP or a venous stasis ulcer. Symptoms of venous insufficiency include aching, throbbing or burning of the legs especially with prolonged standing or sitting. Swelling of the legs or feet that worsen throughout the day, skin discoloration of the lower legs, or the development of varicose veins are also symptoms of venous insufficiency. Venous stasis ulcers and STP are complications that can develop as a result of untreated advanced venous insufficiency.

### How are conditions treated?

The short-term goals of venous insufficiency treatments are directed at reducing associated pain and inflammation, improving leg swelling, healing venous stasis ulcers, and limiting complications from venous insufficiency. Medical grade prescription strength compression stockings, periodic leg elevation, walking, and over-the-counter medications such as ibuprofen are all used for this purpose.

Long-term management of these venous insufficiency disorders includes preventing a recurrence of the condition once it is treated. A thorough evaluation by a vein specialist is important. Identifying and treating any underlying vein disorders that contribute to the development of STP, venous stasis ulcers and varicose veins can prevent a recurrence. In individuals who have not suffered from

STP or venous stasis ulcers, treatment of any underlying vein disorders including varicose veins might prevent these complications from occurring at all.



Definitive venous insufficiency treatments have improved dramatically in recent years and typically include a combination of laser closure of veins, injection sclerotherapy, and microphlebectomy (mini vein removal). All of these treatments can be performed comfortably in an office-based setting without the need for hospitalization, general anesthesia or sedation. Down time following these treatments is minimal with the ability to return to work and normal activities immediately.

Venous insufficiency is treatable and the associated complications are preventable. Early identification and treatment is essential. If you think you may be at risk for venous disease, ask your healthcare provider it. Help is available! ■

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