

## **Venous Insufficiency (Varicose Veins)**

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When most people hear the words vascular, they think of a very common affliction called varicose veins. Affecting more than 20 million Americans, varicose veins represents one form of chronic venous insufficiency over an entire spectrum of venous disease.

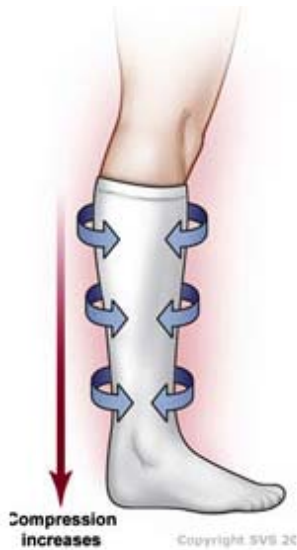
Let's explore in more detail what is meant by the term chronic venous insufficiency. First, the word chronic means something that occurs over a long period of time and often will continue. Venous or veins refers to those blood vessels that carry blood from the body back to the heart. This paper focuses on veins in the legs. Insufficiency refers to malfunction of the veins.

The veins have one-way valves that help prevent the blood in the legs from pooling due to the forces of gravity. The calf muscle acts as a pump when we walk. The pump squeezes the blood into the veins and forces it upwards against the force of gravity towards the heart. The one-way valves help prevent the blood from going backwards from the force of gravity towards the feet. When venous valves do not function properly and allow blood to flow in the opposite direction towards the foot, those valves are called insufficient.

There are two types of veins in the legs: superficial veins and deep veins. Superficial veins are the blood vessels that can develop into the easily seen varicose veins. The deep veins are closer to the bones and arteries of the legs. When the valves of the deep veins become insufficient, people are at most risk of developing serious problems. It is important to remember that chronic venous insufficiency from superficial and deep veins can cause very serious signs and symptoms of the legs including fatigue, pain, itching, swelling, dry skin, inflammation, darkening of the skin or hyperpigmentation, scarring of the skin, and open ulcers.

Skin ulcers represent the most serious problem from chronic venous insufficiency. Ulcers develop because the pooling of blood around the ankles is so severe that chronic inflammation leads to the lack of adequate oxygen reaching the skin.

How does a person know they have chronic venous insufficiency? Varicose veins, which a person can usually easily see on legs, are a very common form and they may or may not cause mild to severe symptoms. When more serious symptoms develop such as pain, swelling, or ulceration, then simple tests can be done to confirm the severity of chronic venous insufficiency. These tests most often include the use of an ultrasound machine that will assess for the presence of blood clots in the veins as well as dysfunction of the valves.



Interestingly, when people develop severe symptoms such as an ulcer, the mainstay of treatment is the use of a compression stocking. Compression stockings are specially designed stockings that apply pressure to the ankle area to minimize the amount of swelling. Nearly every person who has an ulcer from chronic venous insufficiency will heal that ulcer with diligent use of a compression stocking.

Other things can be done to help treat chronic venous insufficiency. Most often, removing varicose veins will improve the symptoms of pain and sometimes more severe symptoms in the legs.

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