Varicose Veins

Varicose veins (venous insufficiency) is a condition in which veins are not able to pump blood back to the heart. This causes blood to pool in the blood vessels so that they become enlarged or varicose over time.

Your doctor will conduct a physical exam and may order a venous ultrasound to evaluate your vein function and check for blood clots. Treatment depends on the severity of the condition and ranges from lifestyle changes to venous ablation (sealing off a vein) or phlebectomy (removing a vein).

What are varicose veins and venous insufficiency?

Venous insufficiency is a medical condition in which veins in the body (most often in the legs) are not able to pump blood back to the heart. This causes blood to pool in the blood vessels so that they become enlarged (varicose (http://www.radiologyinfo.org)) or dilated over time.

Normally, blood circulates from the heart to the legs via arteries and back to the heart through veins. To push blood upward from the feet, veins rely on surrounding muscles and a network of one-way valves to prevent blood from flowing backward. If the muscles and one-way valves become weak or fail, the vein becomes incompetent and blood begins to collect in the vein rather than returning to the heart.

Venous insufficiency causes symptoms such as:

- twisted and bulging veins
- the appearance of dark purple or blue colors at the surface of the skin
- leg swelling, itching, aching, burning, throbbing and muscle cramping
- leg heaviness and fatigue
- skin discoloration
- restless legs
- varicose veins

Varicose veins are superficial blood vessels that become enlarged and twisted. Any vein in the body may become varicose, but the condition most often occurs in the veins of the legs. Varicose veins are different from spider veins—the very small bluish and/or purple veins that are close to the skin and appear on the legs and/or face. Spider veins generally do not cause pain and are more of a cosmetic concern.

Risk factors for venous insufficiency include:

- family history
- pregnancy and other conditions that put pressure on veins in the legs
- a history of blood clots

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- a history of smoking
- standing or sitting for long periods of time
- being overweight, which increases pressure on the legs
- menopause
- aging, which results in decreased elasticity of blood vessels
- weakened blood vessel walls
- inflammation of the veins (known as phlebitis (http://www.radiologyinfo.org))
- chronic constipation and in rare cases, tumors

Complications of venous insufficiency include:

- pain
- inflammation and swelling
- skin ulcers (http://www.radiologyinfo.org)
- bleeding when veins close to the surface of the skin burst
- blood clots (https://www.radiologyinfo.org/en/info/bloodclot) , which can lead to deep vein thrombosis (http://www.radiologyinfo.org)
- superficial thrombophlebitis, a condition in which superficial (closer to the skin) veins within the legs become tender, inflamed, and cord-like in nature

How are varicose veins evaluated?

Your primary doctor will begin by asking you about your medical history and symptoms. You will also undergo a physical exam.

- Your doctor may also order venous ultrasound (https://www.radiologyinfo.org/en/info/venousus) , a test that uses sonography (http://www.radiologyinfo.org) to see if the valves in your veins are functioning normally and to search for blood clots.

How are varicose veins treated?

Lifestyle changes may help prevent varicose veins from forming. These changes include:

- elevating legs while sitting or sleeping
- wearing compression stockings or dressings
- avoiding standing for extended periods of time
- losing weight
- exercising to improve leg strength

If lifestyle changes do not alleviate symptoms or the pain is severe, your doctor may recommend treatment options, including:

- Sclerotherapy: (https://www.radiologyinfo.org/en/info/sclerotherapy) this minimally invasive treatment injects a solution directly into the vein that causes the vessel to shrink and eventually disappear. For larger veins, a foam is injected to close and seal the vein.
- Endovenous thermal ablation: (https://www.radiologyinfo.org/en/info/varicoseabl) this image-guided procedure uses radiofrequency or laser energy to heat and seal off an incompetent vein. Ultrasound helps visualize the incompetent vein, allowing the physician to guide a laser fiber or radiofrequency electrode through a catheter in the vein where heat is applied.
- Phlebectomy (https://www.radiologyinfo.org/en/info/phlebectomy) *(also known as vein stripping):* this minimally invasive procedure uses a small scalpel or needle to remove varicose veins on the surface of the leg through tiny incisions in the skin.

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