

Leg vein problems

All you need to know



#1 physician recommended

JOBST®

Comfort, Health and Style!

Venous disorders: Affecting all walks of life

Dear valued customer,

It is estimated that more than 80 million Americans suffer from some form of venous disorder¹. Unfortunately, while statistics show that one in three Americans over the age of 45 are affected by vein disease, only 4% of those are being treated².

Venous disorders are an extremely common occurrence, just like high blood pressure, heart disease or diabetes. They also need to be taken just as seriously.

Although venous disorders are complex medical conditions, this brochure can help you understand what causes them and how they can be managed. We at JOBST hope the information in this brochure helps get you on your way to better leg health.

JOBST offers a variety of compression garments designed to deliver superior therapy with value and style. All JOBST products are backed by the JOBST Total Satisfaction Guarantee. Because your total satisfaction is our goal, if your new JOBST product does not meet your expectations, simply wash and return it to the retailer where you purchased the product and we'll do our best to make it right.



Your Partner in Leg Health,
BSN-JOBST, Inc.

¹The American College of Phlebology, Patient Education Brochure. Available at www.phlebology.org/brochure.htm.

²Dealer Provider, The Journal for HME, Compress for Success, June 2004, pg. 36.

Blood:

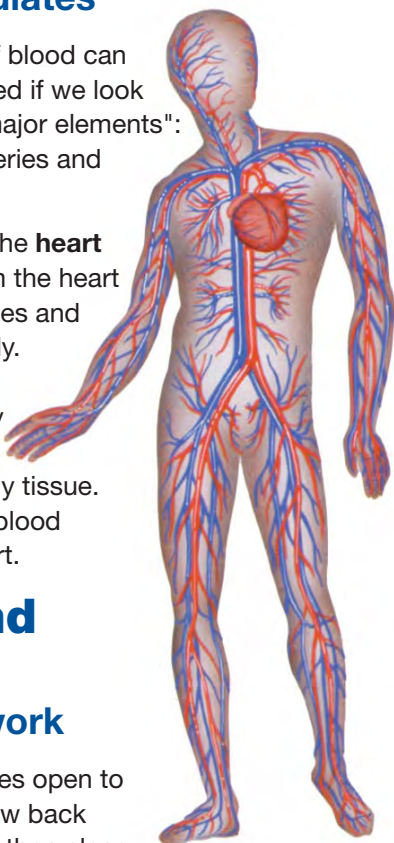
How it circulates

The circulation of blood can be easily explained if we look at three of the "major elements": the heart, the arteries and the veins.

The pumping of the **heart** forces blood from the heart through the arteries and veins of your body.

Arteries are the vessels that carry blood from the heart to your body tissue.

Veins return the blood back to your heart.



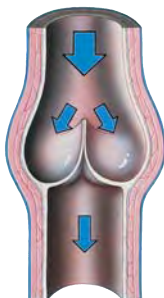
Veins and valves:

How they work

Inside veins, valves open to allow blood to flow back toward the heart, then close to prevent the blood from flowing backwards. The valves keep blood flow in the veins moving in one direction.

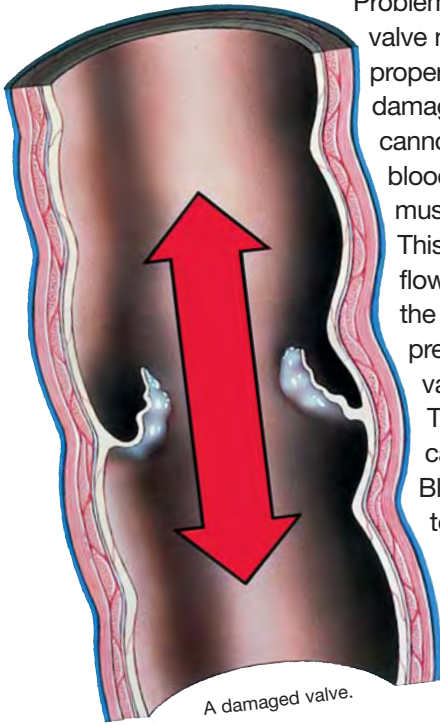


Valves open when muscles contract, allowing blood to return to the heart.



Valves close when muscles relax. Blood cannot flow backwards.

How vein problems occur



Problems occur when a valve no longer closes properly. Weak or damaged valves cannot support the blood when the muscle relaxes. This allows blood to flow backwards in the vein, creating pressure on the valves below. These valves can also weaken. Blood flow back to the heart is reduced and other complications can develop.

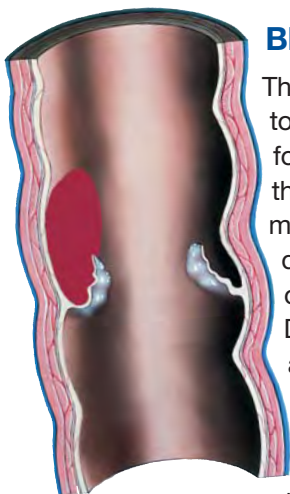
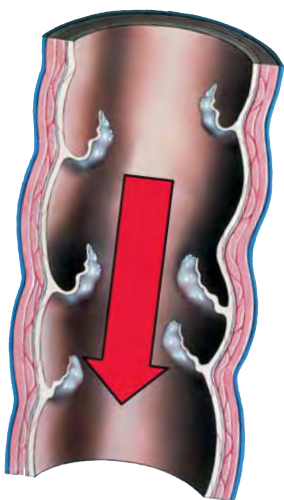
Pooling

A damaged or poorly closing valve in a vein of the leg allows blood to flow backwards. This can cause blood to back up and collect in the veins of the lower leg. Pooling of blood in the veins of the lower leg causes swelling, especially near the ankles and calves.



Enlarged veins

When a valve is damaged or missing, the backup of blood results in higher pressure in the veins below. This higher pressure especially affects the superficial veins. This higher pressure may strain the walls of the vein, causing them to enlarge and even twist. As the veins enlarge, the valves within them can no longer close correctly. Enlarged superficial veins are visible bulges under the skin of the leg. These are also called “ropy” veins.



Blood clots

The blood cells stick together near a valve, forming a clot. Clots in the deep veins are the most serious (called deep vein thrombosis or DVT). Part of a DVT may break loose and lodge in the lungs and may also cause long-term problems in the

veins of the leg. Slow-moving or poorly flowing blood in the veins is more likely to clot. The clot may completely or partially block the flow of blood through the vein. Clots may be caused by sluggish blood flow, injury to a vein, and abnormal blood clotting factors.

Venous disorders:

A variety of conditions

Chronic venous insufficiency (CVI)

CVI results from damaged valves in the veins, causing blood to pool in the leg which leads to swelling and discomfort. This can lead to skin damage and leg ulcers. Although CVI cannot be cured, it should be controlled.

Symptoms of CVI include:

- inflammation and/or swelling of the leg
- leg pain
- varicose veins
- discoloration
- hardening of the skin or leg ulcers

Swelling

Swelling, also referred to as edema, occurs due to buildup of fluid in the body's tissues, often in the lower leg and ankle. Prolonged swelling should not be ignored, as it may be a sign of serious disease or chronic venous insufficiency. Consult your physician.

Symptoms of edema include:

- enlarged ankles and calf
- discomfort or tired legs
- decreased mobility (leg may feel heavy)
- decreased skin elasticity.

Varicose veins

Varicose veins can be mild or severe. They are caused from a backflow or pooling of blood in a damaged vein.

They may also occur as a result of heredity or develop during pregnancy. Spider veins are small, dilated vessels located close to the skin. They appear in a spidery or sunburst pattern.



Symptoms of varicose veins include:

- bulging veins
- aching and discomfort in the leg
- leg heaviness and fatigue
- inflammation

Venous ulcers

The chronic backup of blood due to damaged valves allows blood to pool in the lower leg, causing swelling. Chronic swelling interferes with the nutrition and oxygen supply to the skin. The skin becomes dry, flaky and darker in color. The skin is fragile and easily breaks with minor trauma, forming an open wound, slow to heal.

Symptoms of venous ulcers include:

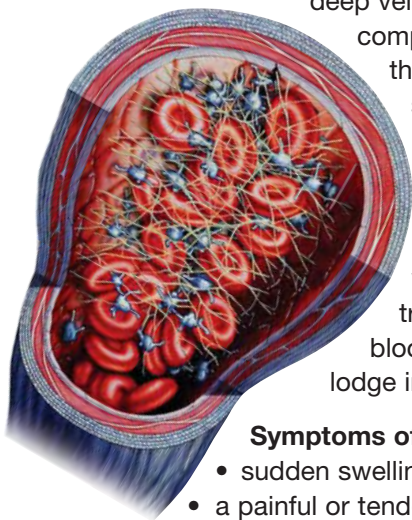
- swelling of the ankle and lower leg
- dermatitis
- purple or brown
- discoloration of the skin around and above the ankles
- open skin with moderate to heavy drainage

Deep vein thrombosis (DVT)

A DVT is a blood clot (thrombosis) that forms in a deep vein, partially or

completely blocking the flow of blood. A

serious, potentially fatal complication of DVT is that a clot can detach from the wall of the vein, travel through the bloodstream, and lodge in the lungs.



Symptoms of DVT include:

- sudden swelling in the leg
- a painful or tender leg
- skin that warms to the touch

Managing DVT: Depending on the location of your DVT, your doctor may prescribe a blood thinner (anticoagulant). This type of medication (such as heparin or coumadin) helps prevent further blood clotting while your body breaks the clot. You may be treated without being hospitalized. Your doctor may also prescribe compression stockings for you to wear while you are up and about and encourage you to walk.

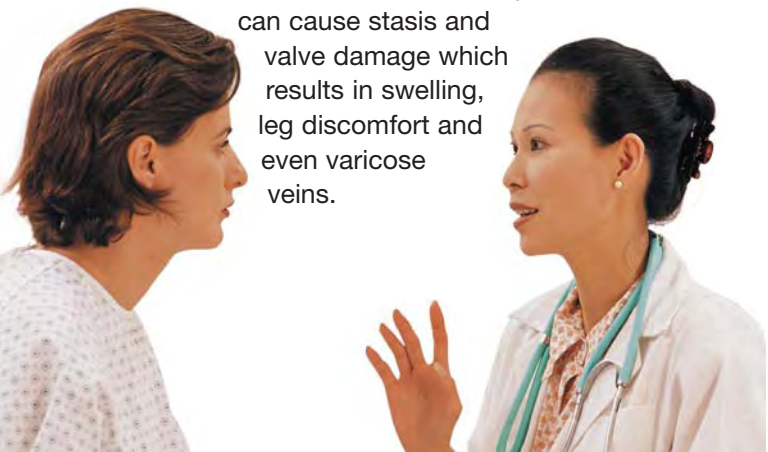
Causes and risk factors of venous disorders

- **Heredity**
- **Lack of exercise:** Standing still or sitting down for long periods of time deactivate your muscular pumps, resulting in pooling of blood in the legs and increasingly swollen veins.
- **Age:** As we get older, the walls of the veins become less elastic and more prone to venous disorders.
- **Tightly fitting clothing**
- **Wearing high-heeled shoes**
- **Obesity**
- **Alcohol consumption during flight**
- **Hot baths and excessive exposure to the sun**
- **Dehydration**
- **Pregnancy:** During pregnancy, there are many hormonal changes in a woman's body. These hormonal changes have profound effects on the veins, particularly they cause the volume of blood to increase nurturing the developing baby. Greater amounts of blood can stretch the vein and damage the valves. This can cause a number of venous circulatory problems.

These include: swollen ankles, tired, aching legs, spider veins or varicose veins.

As the baby grows, the enlarged uterus applies pressure on the vena cava which returns blood to the heart. This pressure

can cause stasis and valve damage which results in swelling, leg discomfort and even varicose veins.



Venous conditions: How you can help yourself

You can encourage blood flow by taking the following steps:

1. Elevate feet and legs

- When resting, elevate your feet above your heart
- When sitting, rest your feet on a stool. Avoid crossing your legs, since this interferes with circulation



These actions help send the blood back toward your heart and reduces swelling.

2. Exercise daily

Always check with your doctor before starting an exercise program.

- Improve your circulation by starting a daily regimen of walking, swimming or other aerobic exercises
- When sitting or standing, exercise your legs. Wiggle your toes, flex your feet or tighten your calf muscles to improve blood flow

3. Use gradient compression therapy daily.



Precision therapy with gradient compression:

Gradient compression applies a measured amount of compression to your leg as the basis for management of venous conditions.

Gradient compression stockings apply the highest amount of pressure at the ankle and gradually decreases up the length of the stocking. This helps the blood in your veins to flow in the right direction – back toward your heart – even if your veins and valves are damaged.

Gradient compression therapy helps manage and prevent the progression of various vein-related diseases.



Individual treatment:

Medical gradient compression stockings come in four different compression levels. Your healthcare professional will prescribe or recommend the right compression level to ensure medically effective management of your venous condition.

Lengths of compression stockings: Different stockings lengths are available, depending on the location of the damage to your veins. Lengths range from knee high to waist high, designed for men and women. In addition, there is a style designed specifically for pregnant women



Knee High



Thigh High



Waist High



Maternity



Chaps



Solutions for all walks of life

JOBST medical compression stockings come in a variety of fashionable options for use in formal, casual or active occasions. Each line offers a wide variety of colors, sizes, styles and compressions to meet all your leg health needs.

UltraSheer: Therapy meets fashion in stylish gradient compression hosiery that is both beautifully sheer and medically effective. The sheerest in its class!

Opaque: Comfortable, medically effective year-round wear with a fashionable look and a soft feel that conceals blemishes, varicose veins and scars.

forMen: Effective therapy in a fine quality dress sock designed for business and casual occasions.

ActiveWear: Effective leg therapy in an energizing athletic sock. Ideal for various activities, from walking to playing sports.

CasualWear: Effective leg therapy in a fashionable, diamond patterned sock. Ideal for informal activities or with casual attire.

Contraindications and Cautions:

Do not wear compression stockings if you have any of the following conditions:

- severe arterial insufficiency
- congestive heart failure
- skin infections
- red, sensitive skin
- hardening of the skin or leg ulcers

Also consult your physician for advice if you have or experience:

- sensitivity to the stocking material
- impaired sensitivity of the limb
- non-ambulatory use (bed ridden)



Benefiting from compression therapy

Millions have discovered the benefits of compression therapy with JOBST gradient compression stockings.

The tips below help you get the best results:

- Wear your gradient compression stockings every day.
- Put your hosiery on as soon as possible in the morning. They'll be easier to put on and more comfortable to wear all day.
- Keep your legs and feet warm. This will help promote good circulation.
- Keep your skin in good condition with non-oily lotion. Apply at bedtime.
- When traveling for long periods of time, be sure to get up and stretch, walk or move your feet for five minutes every hour.
- Hand or machine wash with warm water, mild soap or detergent (no chlorine). Rinse well. Hang or lay flat to dry; some can be machine dried on a low setting.
- With a few pairs, you can wear one, have one in the laundry and one in the drawer.

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JOBST - a brand of **BSN**^{medicare}