

What are compression stockings?

Compression stockings are special socks that improve blood flow in the leg veins and prevent blood from pooling in the legs. They are woven in a special way so that they are tighter near the feet and gradually become looser as they go up the leg. This steady squeezing of the legs helps blood flow out of the leg veins and back towards the heart.

By improving circulation in the veins of the legs, compression stockings can prevent blood clots ([deep vein thrombosis](#)) and relieve the symptoms of [chronic vein disease](#) and varicose veins, such as swelling, aching, and pain.

Compression stockings may also be labeled as "graduated" or "gradient" stockings.

How are compression stockings used to treat vein disease?

Compression stockings are a simple, inexpensive way to prevent blood clots in the veins of the legs (DVT) and to relieve the symptoms of chronic vein disease. Compression stockings can be just as effective as other treatments for vein disease (such as blood thinning drugs) without the risks or side effects, and are often tried first before moving on to other treatments.

In women who are at risk for [deep vein thrombosis](#) (blood clots in the veins), compression stockings can prevent DVT by keeping blood flowing. Blood that sits still is more likely to form clots. See [Am I at Risk for DVT](#) to learn about conditions and situations that put you at risk. Your doctor may recommend you wear compression stockings to prevent blood clots after surgery or during long travel.

1

If you have had a DVT or pulmonary embolism, you should wear compression stockings for at least a year to prevent new clots from forming.² Compression stockings reduce the risk of complications after a DVT, such as chronic leg swelling and pain, by 50% or more.

3-5

In women with [chronic vein disease](#), compression stockings can relieve symptoms such as aching, heaviness, swelling, and pain, and prevent varicose veins from getting worse. Compression stockings are also used to improve blood flow after [procedures to treat vein disease](#), and they can help prevent and heal ulcers (sores) in women with severe vein disease.

Compression stockings are often combined with medication to prevent blood clots. See [Drugs to Treat & Prevent DVT & PE](#) to learn more. Some women may benefit from a stronger form of leg compression called [Intermittent Pneumatic Compression](#) (IPC), in which a pump machine and inflatable leggings are used to provide pulsing pressure that pushes blood through the veins.

What kinds of compression stockings are available?

Compression stockings come in a variety of styles, strengths, and sizes. The choice of stocking depends on how severe and widespread your vein disease is, and how much compression you need to keep blood from pooling in the legs. Your doctor will measure your legs and tell you which type of stocking is right for you. Stockings are available in a range of colors and styles and look the same as regular hosiery.

The most common type of compression stockings extend from your toes to knees or to your mid-thigh. Pantyhose versions are also available. Stockings come in various strengths, given as a pressure in millimeters of mercury (mm Hg). The higher the number, the stronger they are. Some women can buy stockings over the counter (at a medical supply store or full-service pharmacy), but others may need prescription or custom-fit stockings. Your doctor or pharmacist will measure your legs to ensure proper sizing and tell you what strength of stockings you should buy.

Lower-strength compression stockings (10-20 mm Hg) are often used to prevent DVT in lower-risk women, and to treat spider veins and swelling caused by mild chronic vein disease.⁶ Stronger prescription stockings (20–50 mm Hg or more) may be necessary if you have already

had a DVT or are at high risk for one, or if you have severe chronic vein disease.

6

Who should not wear compression stockings?

Most women with moderate or severe [peripheral artery disease](#) (blood flow problems in the leg arteries) should not wear compression stockings. Because stockings help blood flow up and out of the legs, they can interfere with blood flowing down the legs, making

[PAD symptoms](#)

worse. If you have been diagnosed with PAD, or your

[ankle-brachial index](#)

is less than 1 (a sign of blood flow problems in your leg arteries), ask your doctor if compression stockings are safe for you.

Women with [diabetes](#) that has caused nerve problems in the legs (*peripheral neuropathy*) should not wear compression stockings because they may not be able to notice symptoms of poor blood flow in the legs.

My doctor has told me to wear compression stockings. What should I know?

Because proper fit is necessary for compression stockings to work properly, make sure to ask your doctor what size and strength of stockings are right for you and purchase the right kind. One study found that one in four patients wear stockings that aren't the right size, making them either too loose to prevent clots or so tight that they cut off blood flow.⁷ Pay special attention if you lose or gain weight or if your amount of leg swelling changes, as you may need a different stocking size.

You should wear the stockings all day, every day, and take them off at night. If you cannot tolerate wearing them all day, you may be instructed to start by wearing them for only a few hours a day. As you become accustomed to the stockings you should gradually wear them for longer each day. Check your stockings regularly to make sure they are not bunching up or pinching your skin at the top, as this can cut off blood flow and actually increase your risk of clots.

Stockings tend to wear out and lose their elasticity after 3 to 6 months and need to be replaced. You can extend the life of your stockings by reading washing instructions carefully – hand washing may help them stay elastic for longer.

The stockings need to be tight to apply pressure to your legs, and putting them on can be difficult. Some tips:

- Put the stockings on first thing in the morning
- If your skin is moist, putting a little cornstarch or talcum powder on your legs may help them slide on easier
- Use rubber gloves to get a better grip on the fabric
- Special devices to help you put the stockings on (called "donning aids") are available – ask your doctor for more information if you are having trouble
- Hold the stocking by the top and roll outward and down to the heel
- Slide your foot into the stocking as far as possible, making sure your heel is aligned properly
- Grab the rolled part of the stocking and pull up with both hands until it is in place, being careful not to twist the stocking
- Unroll the stocking a bit more and pull up again until the top of the stocking is in place
- Go over the stocking again, starting at the toes, and pull up until all wrinkles are gone

You should check your legs and feet for signs of blood flow problems at least once a day. If you notice skin that is broken, cool, pale, or purple, or if you experience prolonged numbness or tingling while wearing the stockings, call your doctor. You may need a different size or strength of stocking to maintain healthy blood flow.

References

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