



## Deep Vein Thrombosis and Post-Thrombotic Syndrome

What you need to know about compression therapy for DVT and PTS

### What are Elastic Compression Stockings? What is Post-Thrombotic Syndrome (PTS)

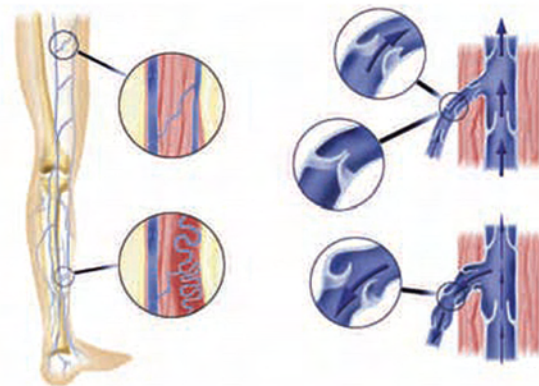
Compression apparel is used to prevent or control edema (leg swelling). These items of clothing may be stockings, sleeves, pantyhose or leotards, depending on the location and type of swelling that you have. Compressing different parts of the body helps improve circulation by preventing the buildup of fluid in the arms or legs. For the purpose of this flyer we will be focusing only on compression stockings.

Sometimes, for one reason or another, the body may retain fluid in a specific area, such as the legs, arms, or abdomen. This swelling is referred to as edema. If you have edema, compression therapy may be recommended as part of a treatment plan.

There are several situations when compression may be helpful, including: tired legs, varicose veins, chronic venous insufficiency (CVI), lymphedema, or deep vein thrombosis (DVT). This brochure focuses on compression therapy for DVT and PTS.

The post-thrombotic syndrome (PTS) is a complication from having had a blood clot or DVT. Many people who have had a DVT in the leg or arm recover completely, but others may still have pain and discomfort in that arm or leg.

These lingering problems are known as the post-thrombotic syndrome. Overall, PTS occurs in 20-40 percent of patients who develop DVT in their legs, and it is the most common DVT complication.



### What is DVT?

Deep vein thrombosis, commonly referred to as DVT, occurs when a blood clot, or thrombus, develops in the large veins of the legs or pelvic area. Some DVTs may cause no pain, but others can be quite painful. If DVTs are identified and treated early, very few are life-threatening.

### Why does PTS occur?

When a clot forms in a vein, the clot or the swelling caused by the clot can damage the valves inside the vein that allow the blood to flow. The damaged valves, as well as the clot, prevent blood from going from the leg to the heart. The lack of blood flow can cause ongoing pain and swelling.

## Do I need compression stockings?

Ask your health care provider about whether compression stockings would help you. If you have had a blood clot in your leg and you are having problems with leg pain and swelling, your leg may feel better if you wear the stocking. Wearing compression stockings also may help prevent PTS.

**Caution:** *If you experience poor blood flow in your leg arteries (different from your leg veins) compression stockings may not be the right choice for you. Talk to your health care provider before purchasing compression stockings.*

## How do compression stockings work?

Compression stockings are made of special elastic fabric. They are tightest at the ankle. Compression gently squeezes the leg muscles and vein walls. Compression also helps move fluid up the leg and keeps it from collecting in the ankle, improving blood flow and decreasing leg pain.

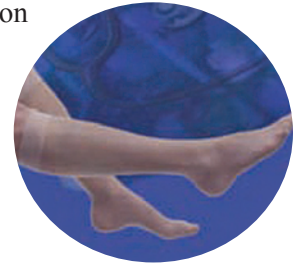
## How can I get compression stockings?

There are different types of compression stockings, and each type is used for different reasons. To prevent or treat PTS, your health care provider will prescribe a prescription strength stocking. You should take the prescription to a pharmacy or medical supply store that sells the stockings. Ask someone to at the store or pharmacy to measure your leg for the correct size stocking. It is best to visit the medical supply store in the morning, when your leg is least swollen, to get the most accurate measurement.



## What kind of compression stockings should I get?

The level of tightness in compression stockings is measured in millimeters of mercury (mm Hg). To prevent or treat PTS, you will need a stocking that provides a compression strength of 30-40 mm Hg. Your health care provider will indicate this on your prescription.



If you are unable to wear this strength of stocking, your health care provider may prescribe a lower strength for you.

Compression stockings come in different styles: knee-high, thigh-high, or full-length. They are available in more fashionable fabrics than in the past. You can wear knee-high stockings even if your blood clot is above the

knee. Most people think the knee-high stockings are more comfortable and easier to put on than the longer styles, and you will have the same relief in PTS symptoms with the knee-high style.

# How do I put on compression stockings?

**Compression tights or stockings are designed to fit tightly. It may take time and practice to get used to putting on these items correctly.**

**Here are some tricks you can use to put on your stocking:**

- Put your stocking on first thing in the morning when your leg is less painful and swollen.
- Gently pull the compression stocking up your leg, smoothing the extra material as you pull. Make sure the heel is in the correct position and the seams are straight. If you are putting on a thigh-high or longer stocking, stand up to continue pulling it over your knee, hips and waist.
- Compression stockings should be smooth, especially at the ankle or behind the knee. Do not roll knee-high or thigh-high compression stockings at the top. Do not fold the stocking down if it seems too long.
- Try wearing rubber gloves, like those sold for household cleaning, or buy special gloves made by the compression apparel companies. The rubber gloves make it easier to grip the material firmly and smooth out wrinkles. The rubber gloves also protect the compression clothing from tears caused by your fingernails or jewelry. If you get a tear or run, then the stocking does not give you the necessary compression.
- Apply talcum powder to your leg to make the stocking go on more smoothly. If you use a lotion of any kind, be sure it is dry before putting your stockings on.
- Purchase a “stocking aid” at a medical supply store. This is a plastic or metal frame that you place in the stocking, and then slide it out as you slide your foot in.
- Have a friend or family member help you with putting on the stockings and taking them off.

If you don't wear your compression stockings for a day or two, it may be too difficult to put them on. If your limb swells too much and you cannot get the stockings on because they are too tight, you may need to wrap the limb as instructed by your health care provider.



## When do I wear the stockings?

If you have leg pain and swelling for several weeks after your blood clot was found, you should begin wearing the stockings as soon as possible.

Stockings are sold in pairs, but you only need to wear a stocking on the leg with the blood clot.

You should begin by putting your stocking on first thing in the morning when your leg is least swollen.

You may take the stocking off at bedtime. If you are able to elevate your leg while sitting or lying down in the evening, you can remove the stocking at that time as well.

## How long do I have to wear the stockings?

You should wear the stockings daily as long as they continue to make your leg feel better. Some research shows that you should wear compression stockings for as long as two years after your blood clot to prevent PTS.

## Removing the Compression Stocking

Pull the stocking off slowly. Pull it down so that the compression stocking is inside out when it is removed.

## Caring for Compression Stockings

Wash the stocking every other day with a mild soap. Do not use Woolite™ detergent. Use warm water and wash by hand or in the gentle cycle in the washing machine. After rinsing the compression stocking completely, remove excess water by rolling it in a towel.

You can either air-dry or dry it in the dryer on the delicate cycle at a cool temperature. It may be convenient to have two compression stockings so you have one to wear while the other is being washed or dried. Order the second stocking after you are sure that the fit of your first one is correct.

The most important things about compression stockings are to wear them consistently and replace them regularly. Over time, any compression clothing will lose its elasticity and its effectiveness. Compression stockings last for about 4-6 months with proper care. A prescription for compression therapy is good for one year. You may need to be remeasured every year, especially if you have gained or lost more than 15 pounds. If you have further questions about your compression apparel, be sure to contact your health care provider.



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This educational resource was created by the Vascular Disease Foundation (VDF). VDF ceased operations in January 2014. In October 2014, Vascular Cures acquired most of VDF's digital assets and educational resources. VDF was founded in 1998 with the mission to provide public education and improving awareness about vascular diseases. Vascular Cures is now the only organization in the country dedicated exclusively to finding cures for vascular disease and to providing resources, information and education to patients with vascular diseases outside the heart. Please help Vascular Cures continue to make this critical educational information available. Your contribution will make saving lives a greater reality. Make a donation today at: [www.vascularcures.org](http://www.vascularcures.org).