

Compression Stockings to Prevent Complications After a Blood Clot

When a deep vein thrombosis (DVT) (blood clot) forms in the legs, it is a serious condition and requires immediate treatment. If you have ever had a DVT, you may remember your leg feeling warm and tender over the affected blood vessel. You probably also experienced pain and swelling in your leg or ankle. The primary concern when a clot forms in the legs is the risk of a heart attack or stroke if the clot moves to the heart or brain.

If you have had a clot, you were probably given medications that helped ease the pain, as well as drugs that helped to dissolve the clots and keep new clots from forming. But you may not have been told about a delayed, chronic, and very serious complication called postthrombotic syndrome (PTS).

If you were not warned of PTS, it may be that your healthcare provider is unfamiliar with this complication. Symptoms of PTS are pain, swelling, and fluid retention in the limb affected by a DVT. Some people also experience cramping, tingling, and itching. Up to half of patients who have a DVT will develop PTS, often within



2 years after having the DVT. Severe PTS can cause ulcers in the affected limb and lead to difficulty standing or walking. It is estimated that 2 million work days are lost each year due to complications associated with PTS.

The causes of PTS are not entirely clear. It may be that inflammation from the clot damages the veins and surrounding muscles in the leg. Individuals who are overweight have an increased risk of PTS. Taking inadequate dosages of drugs such as warfarin that eliminate the clots may also increase one's risk.

Diagnosis of PTS usually does not require any special tests. The presence of leg swelling and

ADDITIONAL TIPS FOR COMPRESSION STOCKINGS

- Put stockings on first thing in the morning
- Do not allow wrinkles in the stockings
- Do not cut or alter the stockings
- Never fold or roll down stockings

pain that is worse with activity and improved by rest in an individual who has had a DVT is often sufficient to make the diagnosis of PTS.

One strategy that has been used to prevent PTS is wearing compression stockings. These special socks exert high levels of pressure at the ankle and lower pressure levels at the knee or thigh. This is believed to help muscles in the calf improve circulation. Compression stockings come in different strengths, ranging from lightweight compression for conditions like spider veins up to Class 3 compression for severe fluid retention.

The optimal amount of compression for PTS prevention is not yet known. Nor is it clear how soon after a DVT patients should start using compression stockings, although it is probably best to begin wearing them as soon as possible within the first month after a DVT. Similarly, it is unclear how long people should continue wearing the special socks. Since most PTS occurs within 2 years after a DVT, wearing the socks at least this long seems reasonable for most people.

Recent studies suggest that compression stockings may not be prescribed as often as they should be. Only one-third of surveyed physicians prescribe them when a patient has a DVT and only half of these doctors recommend an appropriate strength stocking (providing 30-40 mm Hg of pressure). These stockings require a prescription. Studies have found that even when the stockings are prescribed, patients may not always wear them.

If compression stockings are prescribed for you, it is important to have your ankle and calf measured to determine the correct size. Ideally, these

measurements should be taken in the morning when swelling is least. To improve comfort, you can wear knee-length stockings rather than thigh-length ones. The special stockings can be worn only on the affected leg, and just during waking hours. Finally, it is important to wash and dry the socks appropriately and replace them at least every 6 months to maintain adequate elasticity. Unfortunately, compression stockings can be expensive (\$40 to \$50 per pair) and the cost is not always covered by insurance. Furthermore, it may be difficult to find a local medical supply store or pharmacy that stocks the appropriate strength and size stockings that are needed.

While several sets of guidelines recommend compression stockings after a DVT, a number of questions remain with regard to their optimal use. These questions will need to be answered through additional studies. Nevertheless, the stockings can be helpful in preventing PTS. If you have had a blood clot in your leg recently, you should ask your doctor whether compression stockings are right for you.

FOR MORE INFORMATION

Society of Interventional Radiology
sirweb.org/patients/deep-vein-thrombosis/

UpToDate
uptodate.com/patients/content/topic.do?topicKey=kidn_dis/4639#13

Vascular Disease Foundation
vdf.org/pdfs/VDF_FocusOnBloodClots.pdf