

Caring for Your Swollen Legs at Home

Preventing and Managing Venous Leg Ulcers

Wounds Canada has developed this simple guide that can be used by patients and their care partners for preventing or caring for venous leg edema at home.

Do you, or someone you are caring for at home, have swollen legs? If you have swollen legs, you are not alone. This is a common problem. As it can be a sign of serious health problems, and also lead to other health problems, it is important that you find out from a health-care professional why your legs (one or both) are swollen.

Swollen legs can have many causes, including:

- injury (like a sprained ankle)
- heart problems
- kidney problems
- deep skin infection (cellulitis)
- chronic edema/lymphedema
- conditions that lower the ability of the veins in your legs to move blood back up to your heart

This last condition is called venous disease or poor venous return. It may result in venous leg edema (leg swelling). Poor venous return can lead to, or put you at risk for, skin damage in the form of **venous leg ulcers**. Venous leg ulcers are often slow to heal—or they may not heal at all without help from a health-care professional. If you have been told by a health-care professional that your swollen legs are due to poor venous function this resource can help you care for legs and prevent ulcers from occurring.



CAUTION:

If you have NOT had a diagnosis of venous leg edema and you have swollen legs, we urge you to contact your health-care professional right away to rule out other causes. Do not use the information in this resource, as it may be harmful if used for conditions other than venous disease.

Disclaimer: The content in this resource is for informational purposes only and is NOT a substitute for professional medical advice, diagnosis or treatment. You should always consult with your health-care professional before starting any new treatment or changing or stopping an existing treatment.

What causes venous leg edema?

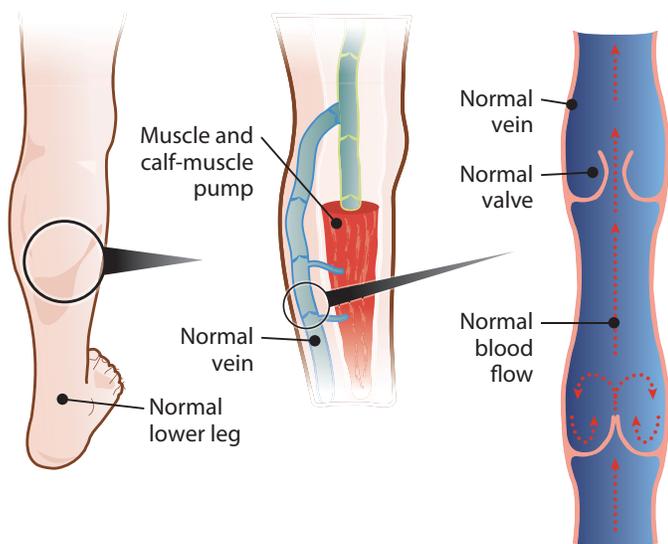
Venous disease, which affects about 30% of the population, is the most common cause of leg edema. Venous leg edema occurs when the valves in the veins in your legs are damaged or the muscles in your lower legs are weak, and blood is not properly pumped up toward your heart. When this happens the blood pools in the veins in your lower legs and the fluid part of the blood leaks into the tissues. This fluid build-up is what causes leg swelling.

Leg edema weakens the skin in the area, making it more likely to become damaged by minor trauma, like knocking your shin on the coffee table, leading to an ulcer. In some cases, the skin breaks down without any trauma because of the damage being done to the tissues from the inside of the leg.

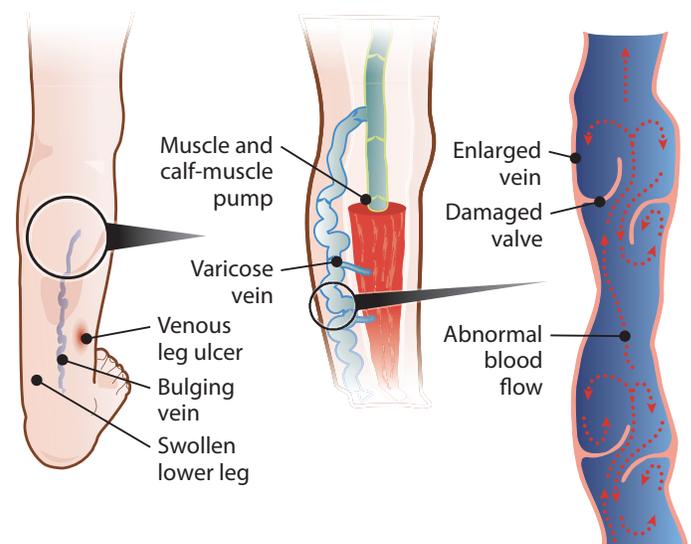
Important:

It is **VERY IMPORTANT** that the cause of the leg edema be identified, and heart disease and kidney or liver failure are ruled out before treatment begins.

Normal Veins



Varicose Veins



CAUTION:

If legs are **swollen above the knees** or if they are also **red, cool and very painful**, there may be additional health concerns. Contact your health-care professional before any treatment begins.

What can lead to venous leg edema?

The following are what are known as “risk factors” for venous leg edema. This means that if you have any of the conditions listed below, you may be at higher risk for getting venous leg edema.

RISK FACTORS:

- **Diseases such as arthritis or injuries such as bone fractures or sprains** to your ankle or foot can be painful. Sometimes pain can affect the way you walk because it hurts to take a full, normal stride. You may end up taking short, shuffling steps instead. Why is this important? A normal stride helps the muscles in your lower leg pump blood back up to your heart. If you are not able to walk properly, blood can pool in your lower legs. Over time, if the way you walk is not corrected you may be at risk for venous leg edema.
- **Sitting or standing too long** may cause damage to your valves and cause your legs and ankles to swell. This can happen during a single long plane flight or car ride, or in the workplace over time.
- **Obesity** may cause increased pressure on the valves in the veins that can cause damage to them and result in leg edema.
- **Multiple pregnancies** can add pressure to the valves in the veins, increasing the risk of venous disease, which can lead to leg edema.
- **Blood clots** in a vein in the past may have caused damage to the vein wall. If swelling occurs suddenly in one leg and the leg becomes painful it might be new blood clots. **This is a serious condition that requires emergency medical help.**

What does venous leg edema look and feel like?

Your legs may:

- have very little swelling, or even look normal, when you get up in the morning, but the swelling gets worse as the day goes on
- have veins you can see easily through your skin; spider veins are small, varicose veins are larger, some varicose veins bump out from the skin **(a)**
- have “pitting edema” when you press on the skin firmly, then release, leaving a dent or pit in the skin **(b)**
- feel itchy and appear dry
- feel heavy, achy or stiff but feel better when you lie down on the sofa or bed and raise them above your heart
- have a darker colour than usual, with brownish staining on the lower leg **(c)**



a. Varicose veins



b. Pitting edema



c. Darker colour than usual, brownish staining

What is cellulitis?

Cellulitis is a skin infection that can occur on swollen legs. It happens when bacteria or fungus get into the skin through damage caused by scratching itchy legs or cracks caused by athlete's foot or other fungal infections.



What are the signs of cellulitis?

Your leg becomes red and warm compared to the other leg.

What can be done about venous leg edema?

Compression therapy is an effective way to manage the swelling of venous leg edema. It **MUST** be recommended by a health-care professional, and **ONLY** after a complete examination has ruled out other causes. It can be dangerous to use compression therapy in individuals with other health problems.

There are two types of compression therapy that your health-care professional will recommend:

1. Compression wraps or pumps (intermittent pneumatic compression or IPC pumps)

Compression wraps or IPC pumps are used first to **get rid of the leg edema**.

- If you have been prescribed compression wraps or pumps, apply them **ONLY** if you have been directed and trained by your health-care professional.
- If you are using wraps and they fall down your leg or get shoved up your foot more than 5 cm (2"), or if your wraps become soiled, remove the wrap and reapply only if the wrap is reusable—otherwise apply a new wrap.



Compression wrap being applied by a health-care professional

2. Compression stockings

Compression stockings are used to **keep the leg edema away** after the compression wraps or IPC pumps have done their job. Usually, compression stockings should come up only as high as the knee and *must* be fitted the first time to an unswollen leg by a professional fitter.

- If you have been prescribed compression stockings, wear them **every day, all day**, except in bed. Put them on *before* you get out of bed in the morning and remove them *just before* you get into bed at night.
- Care for your stockings by reading the manufacturer's instructions. If you've lost the instructions, hand wash them in lukewarm water with a mild, non-scented soap and lay them flat to dry. Remember to replace your stockings every six months (two pairs of stockings should last you one year).
- You may prefer to wear open-toed compression stockings if your feet are very sweaty or prone to athlete's foot.



Compression stocking being fitted by a professional fitter

CAUTION:

If your toes become blue, pale or more swollen than usual, if you develop new pain in your legs or feet, or if you experience sudden shortness of breath, **IMMEDIATELY** discontinue compression therapy (wraps, IPC pumps or stockings) and call your health-care professional. Pale or bluish skin can be the result of not enough oxygen getting to the area.

Tips:

- Make leg health a priority and make it part of your daily routine.
- Most home health agencies have compression stocking fitters and usually require a prescription for stockings from your doctor. They also may have IPC pumps available for rent on a monthly basis.
- Use rubber gloves to make it easier to put your compression stockings on. As well, your fitter can recommend other devices you can use to ease putting on and taking off your stockings.

What can you do every day?

There are many things you can and should do to reduce venous leg swelling (edema) and lower your risk of developing a venous leg ulcer. Follow the steps below every day to keep your leg skin healthy and protected. The Venous Leg Edema Check Sheet on page 6 can help keep you on track.

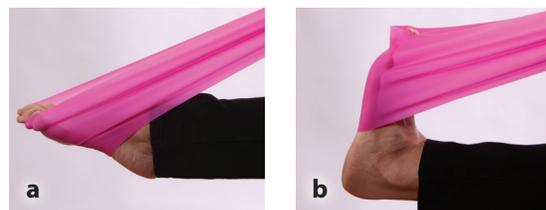
- **Wash your feet and legs daily.** The best time is before bed when you take off your compression stockings or when your compression wrap is changed. Use lukewarm water, a clean soft washcloth and a mild, unscented soap. Rinse well and pat dry.
 - **Look at your lower legs daily,** or when the wrap is changed, to check for new areas of colour change and swelling, rashes, cuts and open sores. If you notice anything unusual contact your health-care professional.
 - **Moisturize your feet and leg skin** daily (after washing and inspecting) using a mild, unscented moisturizer. Do not apply moisturizer between your toes. Moisturizing is best before bed since the moisturizer lotion may affect the elastic nature of the compression garment.
 - **Protect your skin** from injury by wearing protective clothing, like long pants, long socks and well-fitting non-skid footwear, and by applying sunscreen and insect repellent when outdoors.
 - **Avoid scratching or rubbing** your skin if it feels itchy. Doing so may cause damage to your skin.
 - **Raise your legs above the level of your heart** a few times a day. Sleep with a pillow under your legs at night or place a pillow between your box spring and mattress at the foot end of your bed.
- Note:** If the swelling (edema) does not go down it could be caused by another condition, such as lymphedema, and should be seen by a health-care professional.



Legs raised above heart level

- **Exercise** to strengthen your leg muscles using resistance bands (this strengthens what is known as the “calf-muscle pump,” which is an important part of what the body uses to pump blood back up to your heart from your legs).

1. Hold both ends of the exercise (resistance) band steady with your hands and loop the middle under the ball of your foot (but not too far forward or it will slip off)
2. Push down slowly, as far as you can, pointing your toes (**a**)
3. Allow the foot to slowly rise back up so your toes are pointing at you (**b**)
4. Do 10 repetitions, three times per day on each foot, or as directed by your health-care professional.



Calf-muscle pump exercise

If you do not have a resistance band you can do simple exercises, such as making circles with your feet (from your ankles) while seated or by going up and down on your tip toes while holding a counter for balance. Your doctor or a physical therapist may suggest other exercises.

- **Avoid crossing your legs.** Crossing your legs can interfere with blood flow.
- **Avoid wearing any shoes or boots that have high heels,** including cowboy boots. High heels can interfere with your calf-muscle pump.
- **Move as much as possible.** Go for walks often and make sure you use a proper stride (i.e., on each step the heel hits the ground first, then the middle of the foot, then a good push-off with the toes). Avoid sitting or standing in one spot for long periods. If your work requires sitting or standing, take breaks often and move around.
- **Reduce weight** if you're overweight to decrease pressure on your lower legs.



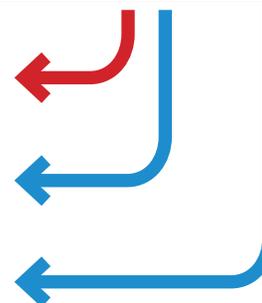
Heel-to-toe stride

Venous Leg Edema Check Sheet

| Today . . . | | | |
|---|------------------------------|-----------------------------|------------------------------|
| 1. I washed the skin on my lower legs and patted it dry. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |
| 2. I moisturized my legs with non-irritating lotion. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |
| 3. I looked for skin changes, signs of cellulitis and injury. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |
| 4. I elevated my legs above heart level at least three times. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |
| 5. I walked or did my calf-muscle pump exercises at least three times. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |
| 6. I avoided sitting or standing for long periods. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |
| 7. I contributed to my weight-loss goals. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |
| 8. I used compression therapy (wraps, IPC pump, stockings) as directed. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |

| CAUTION: | | | |
|---|------------------------------|-----------------------------|------------------------------|
| 9. My legs and feet are red, cool and very painful. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |
| 10. I see signs of cellulitis. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |
| 11. I see a leg ulcer or other breaks in the skin on my leg. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> n/a |

- If *any* of your responses are **YES** to questions 9–11, contact your health-care professional **as soon as possible**.
- If *all* of your responses are **YES** to questions 1–8, continue with your care as usual.
- If *any* of your responses are **NO** to questions 1–8, think about how to make a positive change. If you don't think you can do it on your own, contact a health-care professional for assistance.



If a dressing change is required go to [Caring for a Wound at Home \(www.woundscanada.ca/docman/public/1680-care-at-home-series-changing-a-dressing/file\)](http://www.woundscanada.ca/docman/public/1680-care-at-home-series-changing-a-dressing/file).

Tip:

- Take a photo of your legs if you have a digital camera/phone/tablet. This can help you track changes over time, and if you need to contact a health-care professional you will be able to show them what the skin and swelling look like now and in the past. This will help them decide if treatment needs to change.



Venous Leg Ulcer Q&A

How long do I have to wear compression stockings?

Stockings are for life. Wear them **all day, every day**. They must be put on every morning *before* getting out of bed and taken off at night *just before* getting into bed.

Sometimes my stockings feel too tight. What does that mean?

Stockings that are too tight might be due to a couple of things:

1. They may be the wrong size. Talk to your fitter or the pharmacy where you purchased your stockings to set up an appointment to get fitted properly.
2. You may be waiting too long each day to put your stockings on. Put them on *before* you get out of bed, when your legs are swollen the least. This may mean you have to take your shower the night before instead of in the morning.

I was told I need to hand-wash my stockings. Why can't I wash them in a machine?

The fabric of these stockings is specially made to provide compression to your legs. Machine washing and drying can break down the fabric so it no longer works the way it's supposed to. **Do not** put them in the washing machine or dryer. Hand wash and lay flat to dry.

Why do I need two pairs of stockings?

You don't NEED two pairs, but it is handy if you have them. Each day you can wear the clean pair while the other is air drying after washing. In this way, you'll always have a clean, dry pair.

My toes are really moist and smelly when I take my stockings off. What can I do?

Stockings with closed toes may cause odour, but you can get stockings with open toes. Talk to your fitter or pharmacist to see what type is best for you. The odour may be caused by athlete's foot (a fungal infection) so you may need to get an ointment from your doctor or pharmacist. **Do not** add gauze between toes or use harsh cleaning products to try to reduce the smell, as these may be harmful to your skin.

I have swelling above my compression stockings. What should I do?

First, make sure your stockings are being put on correctly. This means they are pulled up to their full height of your lower leg to just below your knee and have no areas of wrinkling or bunching. If they are on correctly there could be another reason you may have swelling, so check with your health-care professional as soon as possible. **Do not** fold the top over or it will double the tightness and act like an elastic band!

My legs are itchy a lot of the time. What should I do?

You may be itchy under your compression stocking, wrap or boot. This is fairly common but **do not scratch**. Your skin is extra sensitive because of your venous leg edema, and scratching can easily harm your skin and may cause an infection. Itchiness may be caused by the swelling, so as the swelling goes down your leg will feel better. It can also be caused by irritating lotions or not washing all the soap off your skin when you bathe or shower. So be gentle when you cleanse and moisturize.

I don't usually have leg swelling unless I'm travelling. Is there any way I can prevent this?

Sitting in a car for a long road trip and travelling on an airplane are two common causes for leg swelling. If you already have swelling problems you may be at higher risk for more leg swelling or more serious conditions. Even people with no leg swelling can get swollen legs during travel. So before your trip, have your legs assessed at a home health centre for stockings and then wear them while travelling.

I had swollen legs with my last pregnancy. Should I wear compression stockings during my present pregnancy?

Yes, you should wear them with each pregnancy. If your legs continue to swell after your pregnancies see your doctor.

My feet are red and painful. What's going on?

This may be a sign of a lack of oxygen to your legs due to poor blood flow. Contact your health-care professional as soon as possible for a complete physical examination.



CARE AT HOME SERIES

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Preventing and Managing the Cause of Venous Leg Ulcers

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