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Wolters Kluwer

Patient education: Varicose veins and other vein disease in the legs (The Basics)

Written by the doctors and editors at UpToDate

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What is vein disease?

Vein disease is a condition that can affect the veins in the legs. It can cause leg pain, varicose veins, swollen legs, or open sores. Varicose veins are swollen and twisted veins.

Vein disease happens when the veins in the legs do not work the right way. Normally, the veins in the legs carry blood from the legs back to the heart. The veins have valves inside them to help keep blood moving in only one direction (toward the heart). The valves open to let blood flow to the heart, and close to keep it from flowing back down the leg. Vein disease can happen when the valves are damaged or do not work well. This causes blood to collect in the legs. Blood is especially likely to collect in the legs when a person sits or stands for a long time without walking.

What conditions can cause vein disease?

Vein disease can be caused by:

- A blood clot in a leg vein
- Leg injury
- Being pregnant, especially more than once – This causes a change in hormone levels that can weaken vein walls.
- Weight gain

Vein disease can also run in families without any of the above causes.

What are the symptoms of vein disease?

People with vein disease can have symptoms that include:

- Leg pain, or the leg feeling tired or heavy, especially at the end of the day.
- Swollen veins – "Spider veins" are small leg veins that are swollen ([picture 1](#)). "Varicose veins" are larger leg veins that are swollen and twisted ([picture 2](#)).
- Swelling in the lower legs or ankles – People can have swelling at the end of the day or all the time.
- Skin color changes – The skin can turn red or red-brown. This is called "stasis dermatitis." Skin color changes often happen first around the ankle ([picture 3](#)).
- Open sores, also called "venous ulcers" – These are usually at the ankle and can be painful and ooze ([picture 4](#) and [picture 5](#)).

Is there a test for vein disease?

Yes. Your doctor or nurse will do an exam to look at your legs. They might also do a test called an ultrasound. An ultrasound can check how well the valves in the legs work. It can also see if any of the veins in the legs are blocked.

What can I do to reduce my symptoms?

To reduce swelling, you can:

- Walk around, and try not to sit or stand in one place for a long time
- Raise your legs up 3 or 4 times a day, for 30 minutes each time
- Do exercises to point your toes and feet down and up a few times each day

To treat dry or itchy skin, you can:

- Wash your legs each day with a gentle cleanser. Do not use regular soap, which can make skin more dry.
- Use an unscented moisturizing cream or ointment while your skin is still damp. A petroleum-based cream or ointment works well. Ask your doctor or nurse before using

any other type of cream or ointment, because some can cause a rash.

If your skin problems are severe, your doctor or nurse might suggest special ointment, medicine, or bandages.

How is vein disease treated?

Doctors can use different treatments to treat symptoms and reduce swelling. These can include:

- Special socks, bandages, or devices:
 - "Compression stockings" are special socks that fit tightly over the ankle and leg. If your doctor or nurse recommends that you wear them, they will tell you which type to wear and how to put them on ([figure 1](#) and [table 1](#)).
 - "Compression bandages" are layers of bandages that wrap around a person's leg. They are used when there is a lot of swelling, skin changes, or an open wound.
 - A "compression pump" is a device that fits around the leg and squeezes the leg every few minutes. It is used for people who have problems controlling swelling in other ways.
- Special coverings that are put on an open sore to help it heal
- Medicines – Doctors can use different types of medicines to treat different symptoms. For example, people who cannot use compression stockings or bandages might be able to try medicines that help the veins work better. People with a skin infection might need antibiotics. People with itchy skin might need a prescription cream or ointment.
- Procedures – Doctors can do procedures if other treatments do not work. A doctor can remove or destroy damaged veins so they can no longer fill with blood.

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This topic retrieved from UpToDate on: Jan 22, 2023.

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Topic 15729 Version 11.0

GRAPHICS

Telangiectasias (spider veins) on the lower leg



This is a picture of telangiectasias (spider veins), which are small veins that are swollen. These are also called "hyphen webs" or "thread veins."

Courtesy of Patrick C Alguire, MD.

Graphic 54276 Version 3.0

Severe varicose veins



This is a picture of varicose veins, which are swollen and twisted veins in the legs.

Courtesy of Patrick C Alguire, MD.

Graphic 71564 Version 2.0

Stasis dermatitis



People with vein disease can develop something called "stasis dermatitis." This is when the skin turns red or brown. This often happens first in the ankle area.

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Graphic 132248 Version 1.0

Venous ulcer



People with vein disease can develop "venous ulcers." These are open sores on the skin.

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Graphic 132249 Version 1.0

Venous ulcer

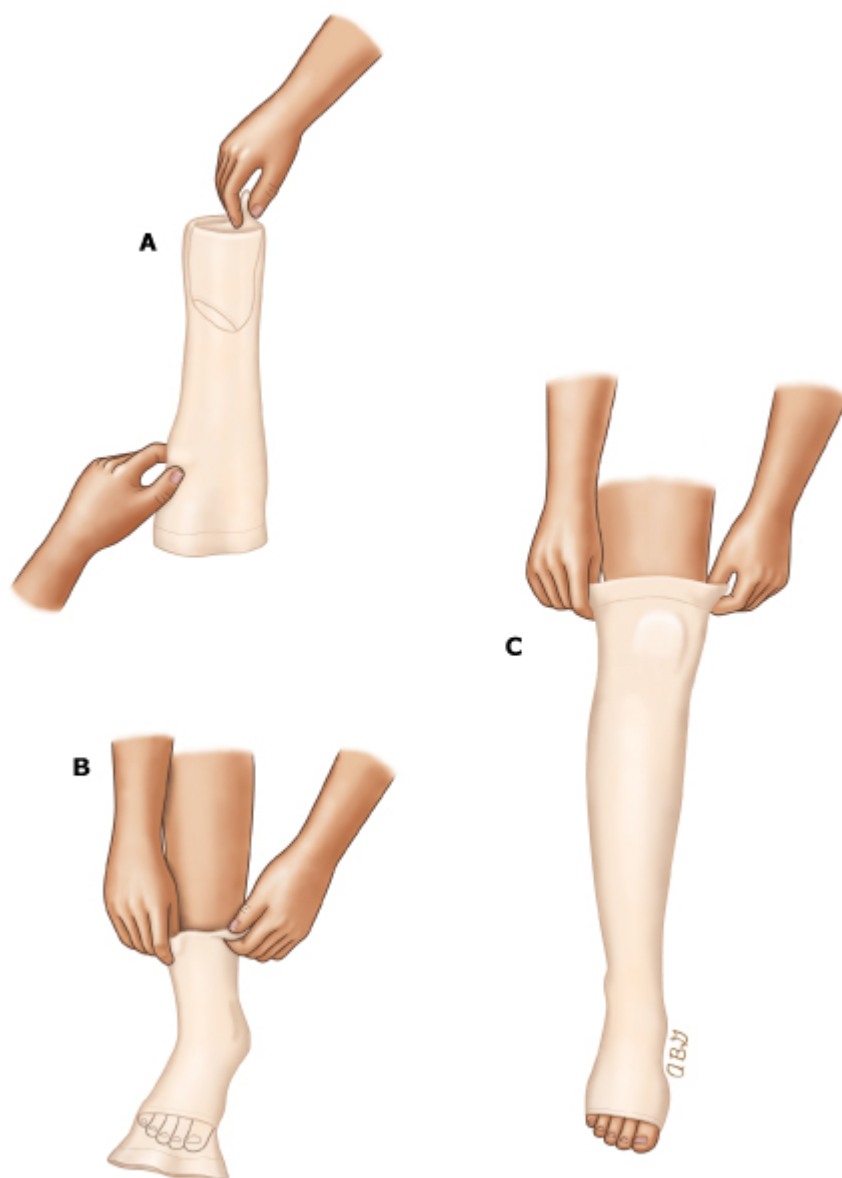


People with vein disease can develop "venous ulcers." These are open sores on the skin.

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Heel-pocket-out method to put on compression stockings



The heel-pocket-out method to put on compression stockings is as follows:

1. Turn the leg part of the stocking inside-out down to the heel (as shown in A).
2. Put your foot into the stocking, hold onto the folded edge, and pull the stocking onto your foot and over the heel (as shown in B).
3. Gently work the stocking up your leg by turning it right-side out (as shown in C).

Tips for using compression stockings

Here are tips for using compression stockings:

- Wash new compression stockings before wearing them to reduce their stiffness and to make them easier to put on.
- Put on stockings as early as possible in the morning after you bandage any sores you have because swelling is less in the morning. If you do not put the stockings on early, raise your legs for 20 to 30 minutes before putting the stockings on.
- When putting on stockings, sit on a chair with firm back support (not on the bed).
- Knee-high stockings can be put on using the "heel-pocket-out method." The heel-pocket-out method to put on compression stockings is as follows:
 1. Turn the leg part of the stocking inside-out down to the heel.
 2. Put your foot into the stocking, hold onto the folded edge, and pull the stocking onto your foot and over the heel.
 3. Gently work the stocking up your leg by turning it right-side out.

Some people find it helpful to wear rubber gloves to put their stockings on. This can make it easier to slide the stockings up the legs.

- Heavy compression stockings may go on more easily if light silk pantyhose are worn under the compression stockings, or if you first put powder on your legs.
- Skin moisturizers and treatments that are used to treat open sores can make the stockings dirty and wear them out. Wash the stockings each day after wearing them if possible. Stockings can be washed in cold water by hand. You can also wash them with cold water and a small amount of mild detergent in a washing machine. Hang the stockings up to dry, and do not dry them in a machine. Buying at least two pairs of stockings at a time will let you wear one pair while the other pair is drying.

If you have an allergy to rubber (latex), you can buy compression stockings without elastic.

If you are not able to pull on your stockings, talk with your doctor or nurse. There are different stockings you can use or devices that can help you put on stockings.

Graphic 57705 Version 5.0

