CONDITION

# Varicose veins

Varicose veins are enlarged, twisted veins that develop when blood does not flow normally through the legs.

**WHAT IT IS**
Enlarged, twisted surface veins caused by faulty valves

**BODY SYSTEM**
Heart and circulation

**MAIN SYMPTOMS**
Bulging veins, aching, heaviness, itching

**WHAT CAUSES IT**
Weakened vein walls and one-way valves

**HOW IT IS DIAGNOSED**
Leg examination and duplex ultrasound when needed

**MAIN TREATMENT**
Symptom care, compression, or vein-closing procedures

**CAN IT BE CURED?**
Sometimes - treated veins close, but others may develop

**IS IT AN EMERGENCY?**
Sometimes - uncontrolled bleeding, chest pain, or sudden breathlessness

**LONG-TERM OUTLOOK**
Usually manageable, though skin damage can progress

## Overview

Varicose veins are enlarged, twisted veins that usually appear just under the skin of the legs. They may look blue, purple, or skin-coloured. Some bulge in a rope-like pattern.

Leg veins carry blood back toward the heart. Small one-way valves inside them help stop blood from flowing backward. If the vein walls stretch or the valves do not close properly, blood can collect in the vein. This is called venous reflux . The increased pressure makes the vein widen and become more visible.

Varicose veins involve the superficial veins, which are close to the skin. Deeper veins do most of the work of returning blood from the legs. This is why a surface vein can usually be closed or removed without harming circulation.

For many people, varicose veins are mainly a cosmetic concern. For others, they cause aching, swelling, itching, or skin changes. Long-lasting pressure in the veins can occasionally lead to inflammation, bleeding, or a leg ulcer.

Small red, blue, or purple lines called spider veins are different. They are tiny widened blood vessels and usually do not bulge.

## Symptoms

Varicose veins do not always cause symptoms. When symptoms occur, they may be worse after standing for a long time and better after walking, resting, or raising the legs.

Possible symptoms include:

Skin around the lower ankle may gradually become dry, flaky, or discoloured. Brown staining can develop when small amounts of blood pigment leak into nearby tissue. More advanced vein problems can make the skin and tissue firm, tight, or painful.

Leg pain and swelling have many possible causes. Visible veins do not prove that every leg symptom comes from varicose veins.

- Bulging, twisted veins under the skin
- Aching, throbbing, burning, or cramping in the legs
- A feeling of heaviness, pressure, or tiredness
- Swelling around the ankles or lower legs
- Itching or irritated skin over a vein
- Tender, firm areas along a vein
- Symptoms that worsen late in the day or during hot weather

## Causes and risk factors

Varicose veins develop when vein walls become stretched and their one-way valves stop working effectively. Blood then flows backward and pools in the vein.

Several factors can make this more likely:

Varicose veins are more often diagnosed in women, although anyone can develop them. Hormonal and pregnancy-related changes may contribute.

Having one risk factor does not mean you will develop varicose veins. Some people develop

them without an obvious cause.

- Family history: A tendency toward weak vein walls or valves can run in families.
- Age: Veins and valves may lose strength and flexibility over time.
- Pregnancy: Increased blood volume, hormones, and pressure from the growing uterus can affect leg veins.
- Long periods of standing or sitting: The calf muscles help pump blood upward, so limited movement may allow blood to collect.
- Higher body weight: This may increase pressure in the leg veins.
- Previous blood clot or leg injury: Damage to deeper veins can interfere with normal blood flow.
- Reduced mobility: Less calf-muscle movement weakens the leg's natural pumping action.

## Diagnosis

A healthcare professional can often identify varicose veins by looking at and feeling your legs, usually while you are standing. They may ask about pain, swelling, skin changes, bleeding, previous blood clots, pregnancy, and how your symptoms affect daily life.

A duplex ultrasound may be used when symptoms are troublesome, complications are suspected, or a procedure is being considered. This painless scan combines standard ultrasound pictures with measurements of blood flow. It can show whether vein valves are leaking and whether deeper veins are open.

Ultrasound gel is placed on the skin, and a handheld probe is moved over the leg. The scan does not use radiation.

Blood tests and X-rays do not usually confirm uncomplicated varicose veins. Other tests may be needed if symptoms suggest a different cause, such as an artery problem, infection, heart condition, or blood clot.

## Treatment and management

Varicose veins do not always need treatment. Management depends on your symptoms, skin changes, complications, ultrasound findings, general health, and preferences.

Simple measures may reduce discomfort, although they do not remove an existing varicose vein. Regular walking and ankle movement help the calf muscles push blood upward. Raising

the legs when resting may ease swelling. Avoiding long periods in one position can also help.

Compression stockings gently squeeze the legs to support blood flow. They may reduce aching and swelling while they are worn, but they do not repair faulty valves. They must fit correctly. Compression may be unsuitable when blood flow through the leg arteries is poor, so professional assessment is important before using stronger stockings.

If symptoms or complications justify treatment, options include:

These procedures redirect blood into healthier veins. The closed vein is gradually absorbed or remains as harmless scar-like tissue.

Treatment is often performed with local anaesthetic, which numbs the area while you remain awake. Temporary bruising, tenderness, tightness, or altered skin sensation can occur. Less common risks include infection, skin burns or staining, nerve irritation, and blood clots. A treating service should explain the benefits, recovery, and risks of the procedure being offered.

New varicose veins can appear after successful treatment because the underlying tendency toward weak valves may remain. Cosmetic treatment may not be funded or covered when there are no symptoms or complications.

During pregnancy, procedures are usually postponed because veins may improve after birth. Compression stockings may be used for symptom relief if they are suitable.

- Endothermal ablation: A thin tube is placed in the vein, and heat from radiofrequency or laser energy closes it.
- Foam sclerotherapy: A chemical foam is injected to irritate and seal the vein.
- Surgery: The affected vein is tied off or removed through small cuts.
- Phlebectomy: Bulging surface veins are removed through tiny skin openings.

## Complications

Most varicose veins do not cause serious problems. Complications are more likely when pressure in the leg veins remains high over a long period.

Possible complications include:

A superficial clot is different from a deep vein thrombosis, or DVT. However, the symptoms can overlap, and a clot may sometimes extend toward deeper veins. New one-sided swelling or significant pain needs prompt assessment.

If a varicose vein bleeds, lie down, raise the leg, and press firmly over the bleeding point with a

clean cloth or dressing. Keep applying steady pressure. Seek emergency help if the bleeding is heavy or does not stop.

- Venous eczema: Dry, itchy, inflamed skin near the ankle
- Skin staining or hardening: Long-term leakage and inflammation can damage the skin and tissue underneath
- Venous leg ulcer: A slow-healing open sore, usually near the ankle
- Superficial vein thrombosis: A clot and inflammation in a surface vein, causing a hard, red, tender area
- Bleeding: A vein close to the skin may bleed after a minor injury or, occasionally, without an obvious injury

## Prevention

Varicose veins cannot always be prevented. Age, pregnancy, family history, and inherited vein structure cannot be changed.

Regular movement may support circulation and reduce symptoms. If you sit or stand for long periods, changing position, walking briefly, or moving your ankles can activate the calf muscles. Maintaining a weight that is healthy for you may reduce pressure on the leg veins.

These steps cannot guarantee that varicose veins will not form. There is not enough evidence that routine compression stockings prevent varicose veins in everyone. They may still be recommended for particular symptoms or situations after an assessment.

## Living with it and what to expect

Varicose veins usually develop slowly over months or years. Once a vein has become enlarged, it does not normally return to its original structure without a procedure. Symptoms may still improve with movement, leg elevation, compression, or changes in daily routine.

Some people have stable veins that cause little trouble for many years. Others gradually develop more visible veins, ankle swelling, or skin changes. Pregnancy-related veins often become less noticeable in the months after birth, although they may not disappear completely.

Walking and normal exercise are generally helpful rather than harmful. You usually do not need to avoid work, travel, or everyday activity solely because of varicose veins. On long journeys, changing position and moving your feet and ankles can reduce prolonged stillness.

Check the skin around your ankles from time to time. Arrange routine follow-up if you notice

increasing swelling, itching, brown staining, hard skin, or a sore that is slow to heal. Early assessment can help prevent minor skin damage from becoming more difficult to manage.

Treatment can close or remove the veins causing symptoms, but it cannot remove the lifelong tendency to develop new ones. Many people continue their usual activities with occasional symptom management or follow-up.

## When to get medical help

Arrange a routine appointment if:

Seek prompt same-day medical assessment for sudden one-sided leg swelling, warmth, significant pain, or a hard and tender vein. These symptoms may need an ultrasound to check for a blood clot.

Call emergency services if you develop sudden shortness of breath, chest pain, cough up blood, faint, or feel severely unwell with leg swelling. These can be signs of a clot reaching the lungs.

Uncontrolled or heavy bleeding from a varicose vein is also an emergency. Raise the leg, apply firm direct pressure, and call for emergency help if the bleeding does not stop.

- Your veins cause persistent pain, aching, itching, or swelling
- Symptoms interfere with sleep, work, exercise, or daily activities
- The skin near your ankle becomes discoloured, inflamed, hard, or fragile
- You have had bleeding from a varicose vein
- A leg sore has not healed within about two weeks
- You want to discuss whether a procedure would help

## Common questions

Can varicose veins go away on their own?

Established varicose veins do not usually disappear because stretched walls and damaged valves do not repair themselves. Pregnancy-related veins may become smaller after birth. Procedures can close or remove affected veins.

Are varicose veins dangerous?

They are usually not dangerous. However, they can sometimes cause skin damage, ulcers, superficial clots, or bleeding. Sudden swelling, chest pain, or breathlessness requires urgent

assessment rather than being assumed to come from ordinary varicose veins.

Does walking make varicose veins worse?

Walking usually helps. Calf-muscle contractions push blood back toward the heart and may reduce pressure and swelling. Standing still for long periods is more likely to worsen symptoms than walking.

Will compression stockings get rid of them?

No. Compression stockings may ease aching and swelling while they are worn, but they do not remove the vein or repair its valves. Correct size and compression strength matter.

Can varicose veins come back after treatment?

A successfully closed or removed vein usually stays closed or absent. However, other veins can become enlarged later. This may happen because the underlying tendency toward weak vein walls and valves remains.

Is it safe to treat or remove a vein?

In most cases, blood is safely redirected through healthy veins, including deeper veins that carry most of the leg's blood. Every procedure has possible risks, so ultrasound findings and your health are considered before treatment.

## Sources

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