

Varicose Vein

Veins are blood vessels that return deoxygenated blood from the outer parts of the body back to the heart and lungs. Blood is pumped from your heart to your legs through arteries. Once it has supplied oxygen and nutrients to your legs, blood returns to your heart through your veins.

To do this, the blood in your veins must flow upwards, against gravity. The muscles in your legs help this upward blood flow. Each time your calf and thigh muscles contract when you're walking, veins deep inside your leg are squeezed. One-way valves help prevent blood from flowing back down your veins.

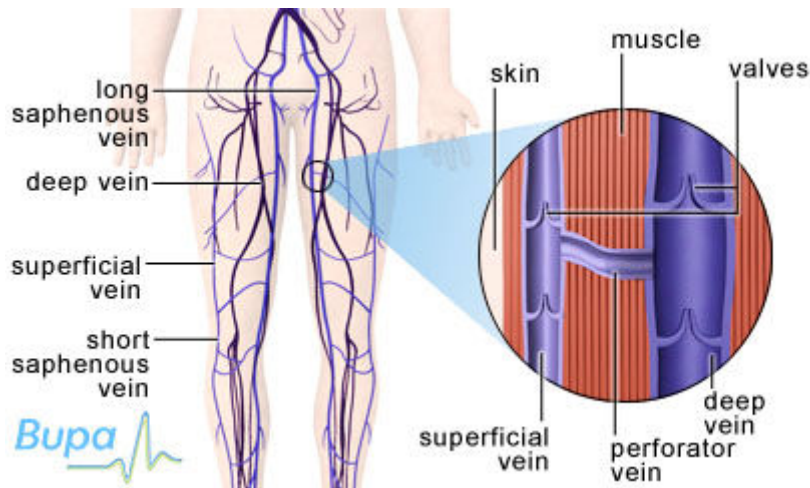
Blood from the outer layers of your legs flows into superficial veins, these veins are connected to deeper veins inside your leg by perforator veins. When blood does not flow properly from your superficial veins to your deep veins, pressure can build up in your superficial veins. This results in blood collecting (pooling) in your veins, and these are called varicose veins.

When veins become abnormally thick, full of twists and turns, or enlarged, they are called varicose veins. Generally, the veins in the legs and thighs have a tendency to become varicosed.

- The thickened, twisting or dilated parts of the vein are called varicosities.
- Varicose veins can form anywhere in the body, but they are most often located in the legs.
- About 19% of men and 36% of women have varicose veins.
- Varicose veins tend to be inherited and become more prominent as the person ages.

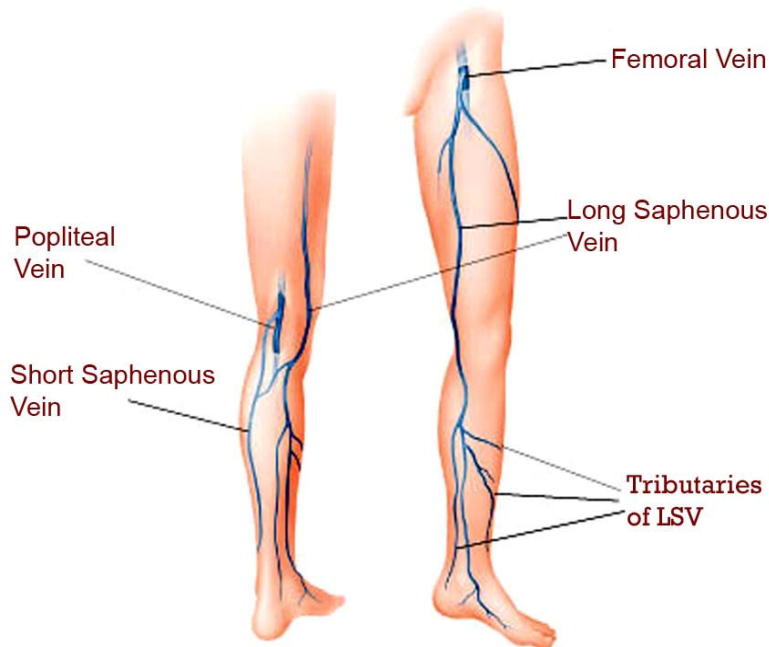
Veins in the leg are either superficial or deep.

- The superficial veins and their branches are close to the skin. These veins typically become varicosed. Also included in this category are the communicator or perforator veins, which connect the superficial veins with the deep veins.
- The deep veins are encased by muscle and connective tissue, which help to pump the blood in the veins and back to the heart. The veins have one-way valves to prevent them from developing varicosities.
- Generally, blood travels from the superficial veins to the deep veins. From there, the blood travels through a network of larger veins back to the heart.



The deep and superficial veins of the leg

Veins carry blood from the body to the lungs and heart. Failure to circulate the blood properly can cause veins to bulge with pools of blood.



The veins of the legs are divided into two systems – the deep veins (which run deep to the leathery layer of fascia surrounding the muscles) and the superficial veins (which run in the layer of fat just beneath the skin). The superficial veins are the ones that you can see on your foot or around the ankle and they are the ones that can become varicose veins.

Varicose veins

Varicose veins are abnormally and irregularly swollen veins (the blood vessels that return blood to the heart from the body tissues).

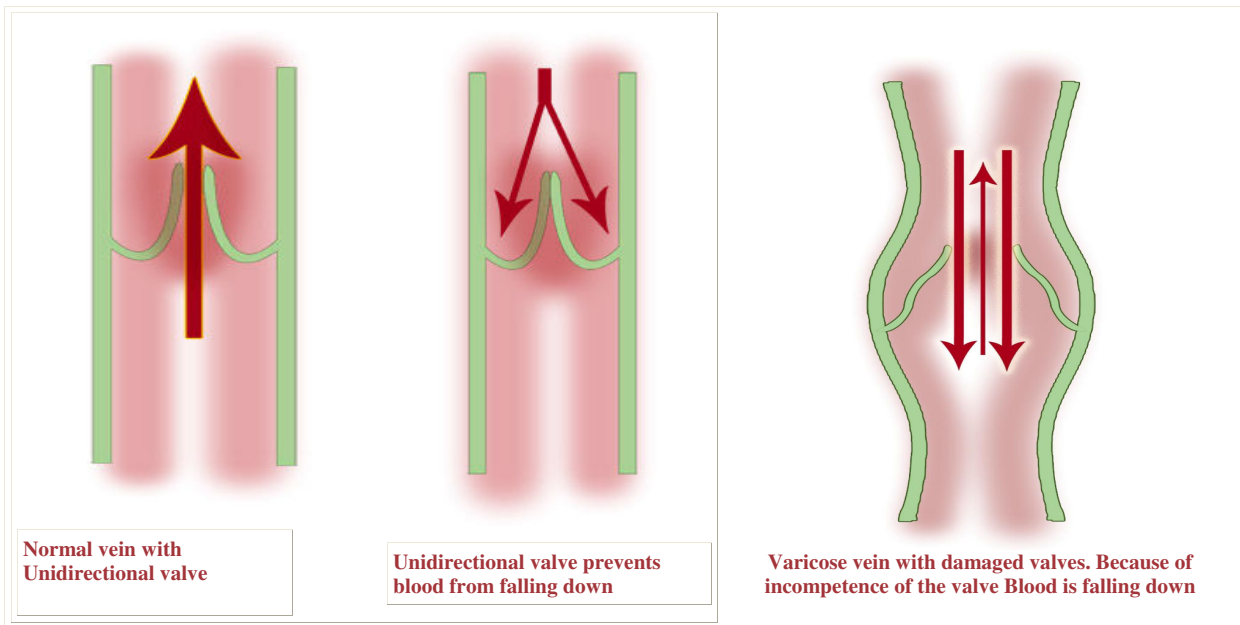
Varicose veins develop slowly, but once they start they progress. They do not get better on their own.

The most common form of varicose veins progresses downward in either or both of two large veins near the surface of the leg.

Varicose veins are classified into 3 major groups

1. Varicosity of the ‘Long Saphenous Vein’
2. Varicosity of the ‘Short Saphenous Vein’.

3. Atypical varicose veins occur in a small group of people.



Varicose veins are typically found in the superficial venous system and often involve the main trunk veins - the great and small saphenous veins - as well as tributaries.

Varicose veins are superficial veins that have expanded in response to increased pressure caused by incompetent or absent valves. Progressive vein dilation eventually prevents the valve cusps from closing properly resulting in reflux. Alternatively, a lack of competent valves can also cause

dilation of the vein. As one valve fails, increasing pressure is exerted on each more distal valve until it, too, becomes incompetent. Diameters of varicose veins can range from 3 mm to > 8 mm.²



Edema and leg or ankle swelling with and without skin changes

Edema and swollen ankles are the next progressive states of venous insufficiency and occur as the result of venous hypertension forcing fluid into the lymphatic and interstitial spaces.

This can cause leg or ankle swelling and changes in skin pigmentation. Severe pain and discomfort are typical of these conditions, particularly in

the lower leg (calf & ankle) where proximity of nerves exacerbates the situation. In addition to superficial involvement, these stages often include some portion of the perforating or deep vein systems.



Active and healed Venous Ulcers

Venous ulcers indicate the most severe forms of venous insufficiency and typically involve both the deep (including perforators) and superficial vein systems. Extreme reflux and venous hypertension result in changes in the microcirculation of the skin eventually leading to severe ulceration.

Anatomic involvement at these stages generally involves the saphenous system, the perforators (typically the Cockett perforators), and the deep system (typically the femoral, superficial femoral and/or the profunda). Why do we mention deep system and list superficial femoral? A smaller subset of the population has deep system-only involvement (<5%) and an even smaller portion perforator-only incompetence.

Varicose veins are very common and affect up to three in 10 people at some time in their lives. They are slightly more common in women. For most people they are a problem mainly because of the way they look.

Varicose veins are veins that may appear purple or blue, twisted and bulging close to the surface of the skin. Varicose veins are swollen superficial veins (veins that lie under the skin) that look lumpy and dark blue or purple through the skin. They usually affect the legs, particularly the calf and sometimes the thigh. The most common area for varicose veins to appear are the backs of the calves or on the inside of the legs, but they can form anywhere on the legs, from the groin to the ankle. If the varicose veins are severe, they can rupture or ulcers can form on the skin.

Varicose veins develop when you have faulty valves and weakened vein walls in your veins. Normally, the one-directional valves in these veins keep the blood flowing efficiently against gravity up toward the heart. However, when these valves do not function properly, the blood pools, pressure builds up, and the veins become weakened, enlarged, and twisted.

Some people may be more likely than others to develop varicose or spider veins due to genetics, old age or hormonal changes. Varicose veins may also result from conditions that increase pressure on the leg veins, for example being overweight, pregnant, or doing jobs that require prolonged standing.

Varicose veins do not always need treatment as not everyone will get symptoms. There are a variety of treatment methods for varicose veins. They range from injection sclero-therapy or laser treatments.

Symptoms

Symptoms are typically due to enlarged nonfunctional veins that cause circulatory problems (venous insufficiency). Leg symptoms can include:

- aching pain
- swelling
- skin irritation or sores (ulcers)
- discoloration

- inflammation (phlebitis)

Varicose veins are relatively easy to identify and can be a cosmetic nuisance for many people and some people may have no symptoms at all.

Symptoms of varicose veins may vary from person to person. They can also include:

- aching or discomfort in your legs
- itchy or restless legs
- swelling of your ankles
- lumps and blue or purple colouring under your skin
- They protrude or bulge from under the skin and feel ropey.
- Symptoms can intensify after a long day of standing.
- Cramps in the legs at night.

Varicose veins can be more prominent or first appear during menstruation or pregnancy, and they may be more bothersome during these times.

Varicose veins are prone to developing superficial thrombophlebitis, which is a blood clot along with inflammation of a segment of vein.

- Blood clots in the superficial veins are easy to detect and troublesome but are usually harmless.
- You may feel an area of tenderness and pain in the varicose vein, along with redness and swelling.
- The area may also feel hard or firm.
- Sometimes such areas can represent infection within the vein.
- This condition is not to be confused with a deep vein thrombophlebitis, which is a blood clot in a deep vein. Deep vein thrombophlebitis is more serious because of the clot's potential to

travel toward the heart and lodge in the lung. This condition requires immediate treatment with blood thinning medications.

Large varicose veins do not always cause more discomfort than smaller varicose veins. These symptoms may also be caused by problems other than varicose veins.

Complications

Having varicose veins does not always mean that you will get complications. However, your varicose veins will not get better without treatment, and they will get worse over time.

Complications of varicose veins include the following.

- Thrombophlebitis - your superficial veins can become painful and reddened due to inflammation or blockage of your veins.
- Bleeding - your varicose veins can bleed if you cut or bump your leg. You should raise your leg above the level of your heart and apply pressure to the bleeding area to help stop the bleeding.
- Varicose eczema - this is brown or purple discolouration of the skin that often becomes permanent.
- Venous ulcers - you can get ulcers when fluid leaks out of the varicose vein into the surrounding tissue.

Causes

The reason varicose veins develop is not fully understood. If you have varicose veins, it is thought that your vein walls are weak, and that this causes the valves in your veins to expand and separate, damaging them. This damage to your valves means that blood cannot travel up your veins as well or as easily as it should, and is more likely to pool.

You are more likely to develop varicose veins if you are older or if you have a job requiring a lot of standing. Women are more likely to develop varicose veins because the female hormones (chemical messengers) relax the walls of the veins. Women who are pregnant or very overweight are

much more likely to develop varicose veins. This is because of the increased pressure on your veins.

Many theories exist for why varicosities occur in veins, but the consensus is that defective/damaged valves within the veins are to blame.

Valves prevent backward flow of blood within the vein. They keep blood in the vein moving toward the heart. Why the valves stop working is up for debate.

- Some experts think inherited problems cause some people to have too few valves or valves that do not function properly.
- Some people may be born with abnormalities of the vein wall. The resulting weakness may predispose the valves to separate and become leaky.

The result is that when a person with poorly functioning valves stands up, the blood flow actually reverses and flows down the superficial veins, when it should be flowing up, toward the heart.

- When the muscles surrounding the deep veins contract, emptying the deeper veins, a build-up of pressure occurs.
- This causes even more blood to go the wrong way from the deep to the superficial veins through faulty valves in the perforator veins.
- This increases pressure in the superficial veins and causes varicosities.

Many factors can aggravate the situation.

- Pregnancy is associated with an increase in blood volume. Also, added pressure on the veins in the legs by the weight of the growing uterus and the relaxation effects of the hormones estrogen and progesterone on the vein walls contribute to the development of varicose veins during pregnancy.

- Prolonged standing
- Obesity or distended belly
- Straining due to c constipation
- urinary retention from an enlarged prostate,
- chronic cough, or any other conditions that cause you to strain for prolonged periods of time causes an increase in the forces transmitted to the leg veins and may result in varicose veins. These mechanisms also contribute to the formation of hemorrhoids, which are varicosities located in the rectal and anal area.
- Prior surgery or trauma to the leg: These conditions interrupt the normal blood flow channels.
- Age: Generally, most elderly individuals show some degree of varicose vein occurrence.

Risk Factors

Weakened vein walls - As you age, the walls of your veins may lose their elasticity. This weakening of the walls cause them to balloon-out (stretch).

Valve failure - As your veins become stretched, valves in your veins fail. Normally, these valves help keep blood flowing from your legs and arms back to your heart, but if vein walls are weakened and stretched, they spread apart. The valves can no longer keep blood flowing upward against gravity. As a result, blood may stagnate in your veins.

Vein damage - Damage may occur due to injury, blood clot or inflammation. If there is trouble in your deep veins, you usually have pain and swelling in your leg as well. Swollen surface veins can be a symptom of damage to your deep vein.

Varicose veins on the surface of your legs are not associated with dangerous blood clots that can travel to your heart or lungs and cause an obstruction (embolism). Any clot that forms near the surface will

generally be small. There may be inflammation, but the clot does not seriously threaten your health.

Diagnosis

Making the diagnosis of varicose veins is a relatively easy task. They are easy to identify just by their characteristic appearance on physical examination. However, to work out the position and extent of any valve damage that you have, some tests have to be performed.

Your doctor will most likely take a thorough medical history and examination looking not only for the extent of your varicose veins, but also for potential risk factors.

- They may do any of several simple tourniquet tests to identify points of reverse blood flow. The simplest test uses only a blood pressure cuff.
- Another useful device aiding in localizing the extent of the problem is a Doppler ultrasound. This handheld device is skimmed over the surface of the leg to map out the veins and faulty valves. The Doppler test uses sound waves to produce an image of the inside of your leg. This gives information about the direction of blood flow in your vein and whether your valves are working properly.
- Duplex scanning, a similar but more detailed test, can also be done to rule out the presence of clots in the deeper veins. Colour duplex ultrasound scanning is used to look for any abnormalities in the structure of your vein, and to look at the blood flow through it.
- Magnetic resonance venography is another test performed when the Duplex scan test is unclear. This test can even look for blood clots in the deep veins.
- The Trendelenburg test involves you lying down and lifting one leg up in the air. Your doctor then uses a pressure cuff, or a tourniquet (a medical device which your doctor can use to compress your leg) to block off the blood flow in your veins temporarily. When you stand up again, your doctor can watch your varicose veins refilling

with blood - this gives an indication of which part of the veins in your leg have faulty valves.

Treatment

If your varicose veins do not cause you any discomfort, you may decide not to have any treatment. If you do decide to have treatment, your doctor will explain your options to you and help you decide which treatment is best for you. The most common treatment options are listed below.

Non-surgical treatments

Self-Care at Home

- Elevate your legs as much as possible. If you can take half-hour breaks during the day to rest, do it. It is important to raise your legs up above the level of your heart to get the maximum effect, and to do this for about a half-hour each time.
- Wear compression stockings. The key is to put them on in the morning before you start walking around and before your veins become more swollen. If you try them and experience worsening pain, especially after you have been walking, remove them and your doctor. You may have problems with the blood supply to your legs (the arterial supply, which provides oxygen). Compression stockings may relieve the swelling and aching of your legs but they will not prevent more varicose veins from developing. Compression stockings can help the blood in your veins to flow up towards your heart, and some people will not need any other treatment.
- If you are overweight, try to lose weight. A healthy diet high in fiber and low in fat and salt can help.
- Avoid alcohol, which can cause the veins in your legs to dilate.

- See your doctor if you have problems such as chronic constipation, urinary retention, or chronic cough. Relieving conditions that are causing you to strain may help with the varicose veins.
- Avoid wearing tight clothing such as girdles or belts.
- Do not cross your legs when sitting.
- Walking is good exercise. It can help the muscles force the blood out of the deeper vein system.
- If you are driving on a trip or working at a desk all day, try to get up and walk around every hour or so to allow the muscles to pump the blood out of the veins.

Surgery

This involves removing any superficial veins which have become varicose veins. There are many types of operation you can have, depending on which veins need treatment. The most common is called ligation and stripping.

The operation is usually done as a day case under general anaesthesia. This means you will be asleep during the procedure.

Although many people will not need any further treatment after surgery, around three in 10 will develop more varicose veins within the next 10 years.

The operation usually takes between 30 minutes and two hours, depending on the exact type of operation and whether only one or both of your legs are being treated.

The most common surgical procedure for varicose veins is called 'ligation and stripping'. Your surgeon will make a small cut in your groin at the top of your leg. The 'faulty' valve is tied off (ligated), to stop blood flowing through it, and the 'faulty' vein in the thigh is then carefully pulled

(stripped) out of your leg through a separate small cut lower down in the leg.

Small cuts may be made along your legs to remove individual smaller veins. This type of procedure is called avulsion or phlebectomy.

After surgery, blood can still flow up your legs because the deeper network of veins is left untouched.

You will need to rest until the effects of the general anaesthetic have passed. You may need pain relief to help with any discomfort as the anaesthetic wears off.

You may also need to wear compression stockings on your legs to help maintain circulation for one week after your operation.

You will usually be able to go home the same day when you feel ready.

Dissolvable stitches will usually disappear in around one to three weeks, but this can take up to six weeks, depending on the type of stitches you have. Non-dissolvable stitches are usually removed around seven to 10 days after surgery.

The recovery time for your operation will depend on whether you have had one or both of your legs treated and the exact procedure used. You will need to take it easy for several days and not do any strenuous exercise, lifting or carrying.

Varicose vein surgery is commonly performed and generally safe. Most people are not affected. The possible complications of any operation include an unexpected reaction to the anaesthetic, excessive bleeding or developing a blood clot, usually in a vein in the leg (deep vein thrombosis, or DVT).

Possible complications of varicose vein surgery include the following.

- Damage to the nerves in your skin. You may get small numb patches or painful, very sensitive patches on your legs. This should get better in a few weeks or months.
- Small patches of brown skin discolouration or areas of thread veins can form where your vein was removed.
- Hard, tender lumps can sometimes form along the line of where the removed vein was. These usually disappear after a few weeks.
- Keloid scars. Rarely, some people have an inherited tendency to form scars which are unusually red and raised.
- Damage to the deeper veins in your legs. This is very rare, but you may need to have further surgery to repair any damaged veins.

The exact risks are specific to you and differ for every person. If you have superficial thrombophlebitis, your doctor will usually recommend warm compresses and pain medication. Additional treatment depends on whether your physician thinks you may have an infection.

Several surgical procedures are available to relieve varicose veins, but not everyone with varicose veins is a candidate for surgery.

- If you are pregnant or recently pregnant, it is advisable to wait at least 6 weeks after delivery before considering this option, because many of the varicose veins you have during pregnancy will fade.
- If your veins bother you only because of the way they look, and you are not bothered by pain or inflammation, then surgery may not be your best option.
- Surgery is usually reserved for people who either do not get relief from the home care techniques or lifestyle changes, or who for cosmetic reasons want to try methods other than sclero-therapy or laser treatment to make their veins less prominent.
- The surgery involves either vein ligation (tying) or stripping or avulsion (pulling away) of the smaller branches.
- With any surgery, risks and benefits exist. A cost to benefit analysis is suggested.

- Recurrence of varicose veins does occur and may be due to incompetent perforator veins or failure to ligate the vein more proximally in the groin.

Ligation

- This usually involves an incision at the groin. The incision measures about 2-4 cm, and the saphenous vein is identified where it enters the femoral vein. It is tied just at the entrance. The procedure can be performed under local anesthesia.
- When the varicosities occur behind the lower leg, the incision is made behind the knee joint to access the lesser saphenous vein.
- Ligation alone carries a low rate of recurrence of varicose veins, as long as the valves of the perforator veins are competent. Stripping of the veins is usually performed for the very large, thick, and tortuous veins that are unsightly.

Vein stripping is being performed less often now, so that the veins can be preserved if the patient requires coronary artery bypass surgery in the future.

For just vein ligation, a few days off is more than adequate.

Avulsion

This requires many tiny incisions and removal of the varicose veins that have been outlined on the skin.

Stripping

- This involves at least two incisions, one at the groin and one at the knee.
- A tunneling device is placed under the skin between the two points, and the saphenous vein is dragged or pulled out of the tunnel.
- This technique will leave not only scars from the incisions but also a significant amount of bruising and possibly bleeding. The bleeding

is easily controlled by pressure dressings and stops immediately. The bruising is usually noticeable for a few weeks.

- For vein stripping, a recovery period of 5-10 days is needed before returning to a regular routine.
- A possibility of persistent numbness from damage to the nerves in the skin exists (for this reason, usually only the vein to the knee is stripped, not the vein below the knee). The numbness is only mild in nature and does not cause any future problems.

It is important that you do not stand still for long periods of time for the first few weeks after your operation, and when you sit down; your feet should be higher than your hips. This helps to prevent swelling in your legs and reduces the pressure on your wounds.

Sclero-therapy (liquid or foam)

This involves injecting a chemical into your varicose veins which damages the veins, causing them to close. Liquid sclero-therapy is often used to treat smaller varicose veins. For larger veins, foam sclero-therapy is sometimes used.

The operation is usually done as a day case under local anaesthesia.

You will be given compression stockings to wear after your treatment. Your doctor will advise you on how long you will need to wear them for.

Studies have shown that this treatment is effective at treating varicose veins in the short-term. However, the long-term benefits of this treatment are not yet known.

A US study showed that in some people, foam bubbles escaped from the leg veins and reached the heart. Sometimes the bubbles crossed into the oxygen-carrying blood that is pumped round the body, including to the brain. It is important to discuss the safety of ultrasound guided foam sclero-therapy with your doctor.

This treatment is only helpful for the spider veins and very small veins. It has no use in the treatment of large varicose veins.

- Even for the smaller veins, many treatments are usually necessary.
- The therapy is not totally successful in helping symptoms and preventing formation of more varicose veins.
- Complications associated with this technique include allergic reactions to the chemical used, stinging or burning at the various injection sites, inflammation, skin ulcerations, and permanent discoloration of the skin.
- Bandages often remain in place for as long as 3 weeks.

Endovenous laser ablation treatment

Lasers have received attention recently as a treatment for varicose veins but are frequently used in the treatment of smaller spider veins, medically referred to as telangiectasia.

This uses a fine laser which is passed inside your varicose vein with guidance from the ultrasound machine. The laser heats the inside of your vein causing damage to the vein wall. This causes the vein to close. The laser is fired at multiple locations.

- The veins treated are small, measuring only up to 1 millimeter in diameter, and represent dilated capillaries.
- Using lasers to treat these smaller vessels can cause changes in the color or texture of the skin.
- Multiple treatments are often required.
- Recovery is rapid and involves minimal pain.
- Except for some mild bruising and a numbing sensation, no other effects have been seen in the short term.
- Since this mode of therapy is relatively new, only time and experience will tell if it is as effective as older techniques.

The operation is usually done as a day case under general anaesthesia.

Benefits

- No surgical incision is needed—only a small nick in the skin that does not have to be stitched closed.
- When compared with traditional vein stripping techniques, endovenous ablation is more effective, has fewer complications, and is associated with much less pain during recovery.
- Endovenous ablation is generally complication-free and safe.
- This procedure leaves virtually no scars because catheter placement requires skin openings of only a few millimeters, not large incisions.
- Endovenous ablation offers a less invasive alternative to standard surgery.
- Most of the veins treated are effectively invisible even to ultrasound 12 months after the procedure.
- Most patients report symptom relief and are able to return to normal daily activities immediately, with little or no pain.

Risks

- Any procedure where the skin is penetrated carries a risk of infection. The chance of infection requiring antibiotic treatment appears to be less than one in 1,000.
- Any procedure that involves placement of a catheter inside a blood vessel carries certain risks. These risks include damage to the blood vessel, bruising or bleeding at the puncture site, and infection.
- Some postoperative bruising and tenderness may occur, but may be alleviated by wearing a compression stocking.
- Some instances of thermal (heat) damage to nerves have been reported. This is rare and generally goes away in a short time.
- Thrombophlebitis (inflammation of the vein) is not uncommon and may cause pain and redness over the treated area, but generally responds well to nonsteroidal anti-inflammatory drugs (NSAIDs). Blood clots that formed in the veins can travel to the lungs

(pulmonary embolism); however, this is an extremely rare occurrence.

Limitations

Ablation catheters cannot be easily passed through a tortuous vein, or a vessel with many turns and bends. Consequently, the procedure is typically used to treat larger varicose veins, such as the great saphenous vein, which extends from the groin down the inside of the thigh into the inner calf.

Endovenous ablation is successful at closing the abnormal target vein almost 100 percent of the time, but small dilated branches that persist in the skin often require additional treatment with phlebectomy (minor surgical procedure to extract them) or sclerotherapy (injection of a liquid medication to seal them off). Subsequent treatments are usually scheduled after an ablation procedure.

Radio frequency ablation

Radiofrequency ablation is a similar technique to endovascular laser, but it uses heat to destroy the vein thus diverting blood flow immediately to nearby healthy veins.

The probe is placed in the vein under ultrasound. The procedure is performed under local anesthesia and takes about 30 minutes. It is a relatively new procedure and short-term results are excellent.

This involves using a high frequency electrical current to heat the wall of your varicose vein along its entire length. This damages the vein causing it to close.

Other approaches

You may be offered other less common treatments at some hospitals including the following.

- Phlebectomy uses hooks to pull out your varicose veins through small cuts in your leg.
- Trans-illuminated powered phlebectomy (TIPP) removes your varicose vein by suction.
- External laser therapy can be used to remove small varicose veins. A laser is used to damage your varicose vein causing it to close.
- Saphenous valvuloplasty is rarely used. It involves placing a patch of material around your varicose vein.

Your surgeon will explain your options to you and help you decide which treatment is best for you.

Prevention

You cannot change your genes, but you can keep your weight under control, exercise, eat a healthy diet high in fiber, and try to stick to loose comfortable clothing when possible. If you are genetically destined to develop varicose veins, they may appear despite all your best efforts.

Although there are no scientifically proven ways to prevent varicose veins, the following suggestions may be useful:

- Do not stand still for long periods of time
- take regular exercise, such as walking
- maintain a healthy weight
- wear properly fitted compression stockings to prevent your varicose veins from getting worse

You may also need to have an anti-clotting medicine.

Advice

If a person has varicose veins, any of the following warrant a visit to a health care provider:

- Inflammation, discoloration, or ulceration of the skin or swelling of the calf or leg is more typical of problems related to the deeper veins, especially a blood clot.

- Unexplained pain or swelling in a leg particularly suggests a blood clot. Varicose veins by themselves do not usually cause a leg to swell.

Varicose veins alone are relatively harmless, but every now and then they can cause minor problems.

- If the skin overlying the vein is thin or irritated, minor trauma from a bump or even shaving can tear the vein and cause bleeding. In this case, elevating the leg and applying pressure for several minutes should be enough to stop the bleeding. If it does not, you may need to visit your hospital emergency department.
- If, at any time, you feel chest pain or have trouble breathing, this may indicate the presence of a blood clot in the blood vessels of the heart or lungs. You should go to a hospital emergency department immediately.

Having varicose veins does not necessarily mean you will eventually have a blood clot or that a blood clot somehow caused them.

- In rare instances, however, a clot increases pressure in the veins by blocking blood flow.
- This elevated pressure will cause backward flow of blood through weakened valves, creating varicose veins.
- For this reason, you should see your health care provider if your leg is swollen or if you experience worsening pain in the leg, or if you should suddenly develop varicose veins and you do not have any of the common risk factors such as pregnancy.

Outlook

Varicose veins that you have now will not go away unless you have some treatment. At times the veins may seem more prominent, such as in warm weather. However, once they appear, they will not go away on their own.

Prevention is the key. In some cases, varicose veins may be one stage in the continuum of chronic poor vein functioning.

Some people may progress from having no symptoms, to the development of varicose veins, and then on to problems with leg swelling, and finally to ulcers caused by stagnant blood flow.

A small number of these people will have deep vein clots as a cause for their signs and symptoms, but most will not.

The more severe problems, such as skin ulcers, tend to be very difficult to prevent completely. Once these ulcers occur, they are very difficult to cure. Even when they are eliminated, these ulcers tend to recur.

A deep vein blood clot has the potential to travel through the bloodstream and lodge in the lung. This is called a pulmonary embolism. Pulmonary embolism does not occur from varicose veins.

- Pulmonary embolism can be life threatening, because the blood clot can interrupt the circulation of blood.
- Common symptoms of pulmonary embolism are chest pain and shortness of breath.

