

Patient information from BMJ

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Varicose veins: surgery to remove varicose veins

This information tells you about an operation to remove varicose veins. It covers the different types of surgery, how much the surgery can help, what the risks are, and what to expect afterward.

Procedures and practices can vary slightly between hospitals. You can use our information to discuss your surgery with the doctors and nurses treating you.

What is surgery to remove varicose veins?

This is an operation to remove varicose veins in your legs. Varicose veins don't usually cause serious health problems, but they can be uncomfortable. Many people decide to have them removed because they don't like the way they look.

Varicose veins happen when the **valves** in your veins don't close properly. These valves:

- let blood flow in only one direction through your blood vessels and
- stop it flowing back the other way.

When these valves don't work as they should, blood can trickle backwards and pool in your veins. This can cause the veins to bulge and twist visibly.

In an operation to remove varicose veins, the surgeon makes a cut in your leg and removes the vein with the faulty valves.

The faulty valves are usually found in one of the two large veins that run just under the skin along the length of your leg. These are called **surface veins**:

- One surface vein runs up the inside of your leg from your ankle to your groin.
- The other runs up the back of your leg from your ankle to your knee.

Why might I need surgery to remove varicose veins?

Some people have varicose veins removed because they are causing them physical problems, while others have them removed because they don't like the way they look.

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Medical reasons

Your doctor might suggest that you have varicose veins removed if they are causing problems such as:

- pain and discomfort
- swelling and discoloration, or
- leg ulcers.

Cosmetic reasons

Many people choose to have varicose veins removed even if they are not causing problems, because they don't like the way they look. But you will usually have to pay to have this done privately.

What will happen?

The operation usually takes between 1 hour and 2 hours. You should be able to go home the same day.

If you are having varicose veins removed from **both legs**, you might have two separate operations on different days, or you might have surgery on both legs at the same time.

If you have surgery in both legs in one operation, you might need to stay in hospital overnight.

Preparing for the operation

Before your operation you might need to:

- have an **ultrasound** scan before your operation. This can help to show which valves in your veins are causing problems
- stand up for a while so that your doctor can see where blood is pooling in your veins. Your surgeon will mark your varicose veins with a pen, because the bulges are harder to see when you're lying down for surgery
- shave your legs.

You will usually need a **general anesthetic** for this surgery. This means that you'll be asleep during the operation.

During the operation

There are several types of surgery for varicose veins. The most commonly used is called **ligation and stripping**. Most people who have this operation have a general anesthetic.

The surgery usually involves removing a section of vein between the groin and the knee, although sometimes the surgeon needs to remove the vein all the way down to the ankle.

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It happens like this:

- The surgeon makes **two cuts**: a two-inch cut along the crease in your groin, and a half-inch cut lower down your leg, usually on the inside of your knee. If you're having the whole vein removed, the lower cut is made at the ankle.
- The surgeon then finds the top of the main surface vein and ties it off at the top (and sometimes at the lower end) to stop blood flowing through it. This is called **ligation**.
- A thin, flexible wire is then passed down through the vein to the lower cut. There's a stripping tool at the upper end of the wire.
- Your surgeon pulls the wire out through the lower cut. The vein and its branches bunch up on the stripping tool and are pulled out from the knee or ankle. This is called **stripping**.
- Sometimes, instead of pulling out the vein through a cut lower down your leg, the surgeon makes only one cut at the top of your leg and removes the vein through this top cut. This is called **inversion stripping**.

As the vein comes out it turns inside out (inverts). Because there is only one cut with this operation, it means you should have less pain afterwards, and that you should recover more quickly.

- The surgeon then sews up the groin and the lower cut using stitches that will dissolve.
- The surgeon might make smaller cuts (about one fifth of an inch long) down your leg and uses a hook to pull out smaller pieces of bulging vein. This is called **avulsion** or **phlebectomy**. These small cuts don't need stitches, but the surgeon might seal them using paper strips.
- At the end of the operation your whole leg is bandaged.

Some surgeons use a fairly new technique called **transilluminated powered phlebectomy**.

This involves inserting a tiny light under the skin. This light shows which veins need to be removed. The surgeon then uses an electrical device to suck small pieces of vein from your leg.

It's not a standard procedure in many places, but some surgeons consider it the most suitable treatment for some people. You can ask your surgeon about this treatment if he or she suggests it.

What are the risks?

Any type of surgery carries risks. Your surgeon should discuss these with you before your operation.

One common cause of problems is **anesthetics**. Anesthetics can have side effects. These are more likely with a general anesthetic. The most common side effect is feeling nauseous for a while after you wake up.

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Some people can have an **allergic reaction** to the anesthetic, which can be serious. If you have any allergies, tell your doctor before you have surgery.

Anesthetics can sometimes cause breathing or heart problems. These problems are serious but rare. Your heart rate, blood pressure, and breathing will all be monitored for possible problems during your operation.

Other possible problems

Below is a list of other possible problems that can happen with this type of operation.

This list might look long. But remember, these are only things that might happen, not things that definitely will happen. Many people who have this operation have no problems at all.

- **Nerve damage** can cause a patch of skin on your leg to feel numb. This is fairly common with this operation. But it's rarely serious. The numbness often goes away after a few weeks or months. But it can be permanent.

If the large nerve that runs down the back of your thigh is damaged, it can make your foot floppy and weak. Doctors call this **foot drop**. This is very rare.

- **An infection** can cause pain and redness where the surgeon made the cuts. If this happens, you will need antibiotics.
- **Bleeding** can occur under the cuts in your skin after the operation. If the blood builds up and clots, the area will swell and feel tender. This causes a large bruise called a **hematoma**. If this happens, you might need more surgery.
- **Fluid build-up** near the cut in your groin can form a lump. Fluid can also leak out of the cut, which can feel wet and uncomfortable. If this happens, you might need to have the fluid drained off.
- **Hard, tender lumps** of tissue sometimes appear near the cuts from surgery or along the line of the removed veins. These often go away after a few weeks.
- **Brown patches** can sometimes appear on the skin where the veins have been removed. Doctors call this **pigmentation**. It's not common.
- Patches of **tiny red veins** can sometimes appear on the skin's surface. This is called matting.
- A blood clot can develop in the deep veins of your leg. Doctors call this **deep vein thrombosis (DVT)**. This is usually not serious, but it can be uncomfortable. But sometimes a clot in the leg or pelvis can travel in your bloodstream to your lungs. Doctors call this a **pulmonary embolism**, and it can be life threatening.

Pulmonary embolism after varicose vein surgery is very rare. If your doctor thinks you might have an increased chance of blood clots, you might be given small doses of blood-thinning drugs to reduce your chance of getting one.

- Very rarely, surgery goes wrong and damages **deeper veins**. This can make your problems with blood flow worse and lead to more surgery.
- As with any operation, there is a very small chance of **death during surgery** to remove varicose veins.

What can I expect afterwards?

Immediately after your operation

When you leave the operating theater, you will go to the recovery area until you are fully awake.

You will probably have a tube in the back of your hand where you were given the anesthetic. If you had a local anesthetic, the parts of your leg where the cuts were made will feel numb for several hours.

You'll be able to get up and walk around as soon as the anesthetic has worn off.

Your legs will either be tightly bandaged, or you will need to wear **support stockings** or tights. You should wear these for 7 to 10 days.

It's normal to have some **bruising**, especially on the inside of your thigh. This usually takes about one month to disappear. Sometimes, a little blood will ooze from the wounds over the first day.

You might feel sore for a few weeks. Non-prescription painkillers, such as paracetamol, are the only pain treatment that most people need.

The cuts on your leg will leave small, lumpy **scars**, but these should fade over time.

You might feel tender lumps under the skin on parts of your leg where the varicose veins were removed. These will go away over a few weeks. If the lumps become red, swollen, and painful, see your doctor.

Going home

You should be able to go home the same day of your operation.

You will probably feel tired for a few days after surgery, especially if you had surgery on both legs.

You might find it uncomfortable to move around for a few days. If you had surgery on both legs, it might take 2 weeks or 3 weeks before you are walking comfortably.

But you should try to walk about a little every half hour or so each day for the first week or two. This helps reduce your chances of getting a blood clot.

When you aren't walking you should try to put your feet up, with your heels lifted higher than your hips.

Your doctor will advise you on when you can go **back to work**. You'll probably need 1 or 2 weeks off.

You can have **sex** as soon as you feel able to. But avoid any strenuous activities or sports for several weeks. You should be able to **drive** again after 7 to 10 days.

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