

operation. Most people are not affected, but the main possible complications of any surgery are excessive bleeding, infection or an unexpected reaction to the anaesthetic. Complications may require further treatment such as returning to theatre to stop bleeding, or antibiotics to deal with an infection. In very rare cases, complications can be life-threatening.

Specific complications of varicose vein surgery include.

- Deep vein thrombosis (DVT). This is when a clot forms in one of the veins inside the leg. Although treatable, by wearing compression stockings and sometimes by medicines, DVT can be painful and leave the leg worse than before treatment. DVT occurs after about one in 200 operations. Rarely - about one in about 1000 operations - part of the clot can break off into the bloodstream and cause a potentially life-threatening blockage in the lungs called a pulmonary embolism.
- Damage to the nerves in the skin, resulting in small numb patches on the legs. The feeling should return but this may take a few weeks or months. These areas can also be hypersensitive or painful.

- When operations are done for the short saphenous vein, a nerve that moves the ankle and foot may be injured, causing the foot to droop.
- Small patches of brown skin discolouration or areas of thread veins form where the veins were removed.
- Occasionally, hard, tender lumps appear near the scars or along the line of the removed veins. These usually disappear after several weeks.
- A small minority of people have an inherited tendency to form scars that are unusually red and raised.
- In very rare cases, the deeper major veins may be damaged and this may worsen problems with blood flow in the legs. Further surgery may be required.
- Varicose veins may also reoccur in other veins.

The chance of problems depends on the exact operation and other factors such as the person's general health. The surgeon will be able to explain how the risks apply to each patient.

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## Varicose vein surgery

Varicose veins are swollen veins (usually on the legs) that look lumpy and bluish through the skin. They happen when the valves in the veins become weak or break, allowing blood to collect in the veins instead of being carried up to the heart. One of the most common treatments is an operation called stripping and ligation.

### Vein trouble

Varicose veins are very common. They affect around two or three out of every ten women at some time in their lives, and around half as many men.

The chances of getting varicose veins is increased by pregnancy or being very overweight. If one or both parents had them, you are also more likely to be affected. Varicose veins have traditionally also been blamed on factors such as standing up a lot or crossing the legs, but there isn't good scientific evidence for this.

In most people, varicose veins don't cause medical problems but they can be unsightly and uncomfortable. In others, left untreated, the poor circulation associated with varicose veins can lead to skin problems, such as

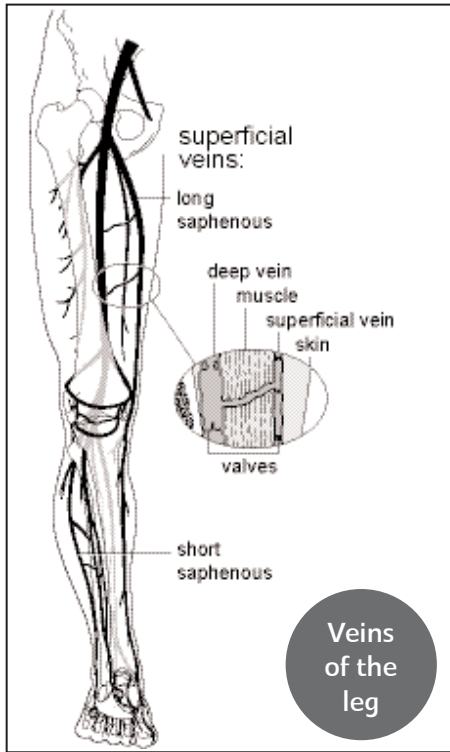
eczema and skin ulcers. When knocked, a varicose vein may bleed, and this will need urgent treatment. Occasionally, a blood clot and inflammation (thrombophlebitis) may form in a superficial varicose vein, but this is not usually dangerous.

Varicose veins do not tend to get better without treatment, and usually get worse with time.

### Treatment options

In some cases, no treatment or non-surgical treatments may be recommended. These include:

- resting with the legs elevated (with the feet raised above the hips)
- wearing properly-fitting elasticated compression stockings



- losing weight, if obesity is considered to be making the problem worse
- sclerotherapy - this is an injection of chemical solution into the vein. If successful, it closes the affected vein off, forcing other stronger veins to take over the job of circulating the blood. Sclerotherapy may need to be repeated and is not always successful
- microwave treatment - new approaches to treatment include using microwaves, delivered by a fine tube inserted into the veins. This causes the affected veins to collapse and shrink. It is available at some hospitals, but is not routine treatment

The most effective treatment for many varicose veins is to have them surgically removed. However, it is possible that the condition will come back again, even after surgery.

### The operation

Varicose vein surgery is routinely performed under a general anaesthetic as a day case, requiring no overnight stay in hospital. Typically, people are asked not to eat or drink for about six hours before a general anaesthetic. However, some anaesthetists allow a few sips of water until two hours beforehand.

The procedure usually takes between one and two hours, depending on the exact type of operation and whether one or both legs are being treated. The most common varicose vein operation is called ligation and stripping. It involves a small cut in the groin at the top of the main affected vein. This vein is tied off (ligated), to stop blood flowing through it, and is then carefully pulled (stripped) out of the leg through the incision. Sometimes the vein is tied off but not removed. Small cuts may also be made along the legs to allow individual smaller veins to be removed. This process is known as avulsion or phlebectomy.

The cut in the groin is usually stitched closed, and any smaller cuts sealed with fabric strips. The legs will then be tightly bandaged. After surgery, blood can still flow up the legs because the deeper network of veins is left untouched.

### What to expect afterwards

It will be necessary to rest for a while after coming round from the anaesthetic. The legs may feel stiff and sore and it might not be possible to get up straight away without some help. Painkillers will help to relieve any discomfort.

If the operation is planned as a day case, most people can go home once they have recovered from the anaesthetic. However, anyone who has a general anaesthetic should arrange for a friend or relative to drive them home and then stay with them for 24 hours.

A general anaesthetic can temporarily affect co-ordination and reasoning skills, so people are advised to avoid driving, drinking alcohol or making any vital decisions for 24 hours afterwards.

The recovery time for this operation will depend on whether one or both legs have been treated and the exact procedure used. The legs are likely to be quite sore and stiff so it will be necessary to take it easy for several days and avoid any strenuous exercise, lifting or carrying. If needed, painkillers may be taken as advised by the hospital.

People who have this operation are advised not to drive until they feel confident that they could perform an emergency stop without discomfort - probably no less than a week after the operation. The surgeon will advise on a suitable date for returning to work.

The bandages or stockings on the leg(s) apply pressure to assist healing, and they should be left in place according to the advice of the surgeon. This is usually one week.

It's important not to stand for any length of time in the first few weeks after surgery and to ensure the legs are elevated when sitting (the feet should be higher than the hips). This will help prevent blood pooling in the leg and reduce the pressure on the healing scars.

### Deciding on varicose vein surgery

Removing varicose veins is generally a safe surgical procedure. However, in order to give informed consent, anyone deciding whether or not to have this procedure needs to be aware of the possible side-effects and the risk of complications.

#### Side-effects

Side-effects are the unwanted but usually mild and temporary effects of a successful procedure. For this operation, they are likely to include:

- soreness - which can be controlled with painkillers
- bruising - which should ease within a couple of weeks
- a small amount of bleeding from the wounds,
- small scars from the incisions.

#### Complications

Complications are unexpected problems that can occur during or after the