

Varicose vein surgery

Veins carry deoxygenated blood. Varicose veins are knobbly, twisted and darkish-blue in appearance, and are most commonly found on the legs. Blood is collected in the superficial veins of the leg, just below the skin surface, and delivered to deeper veins that run within the calf muscles. The muscular action of the calves helps to pump the blood against the force of gravity towards the heart. One-way valves inside the veins prevent blood from travelling backwards. If these valves fail to close properly, blood pools in the superficial veins. Over time, the affected veins distend with blood (become 'varicose'). The cause is unknown. Varicose vein surgery is the removal of these distended veins. Treatment can be undergone for therapeutic or cosmetic reasons.

Problems associated with varicose veins

Problems can occur if the faulty valves are located within the veins that perforate the calf muscles (deep veins). Associated problems may include:

- Aching in the legs.
- Skin rashes such as eczema.
- Brownish 'stains' on the skin surface, caused by the eruption of capillaries.
- Skin ulcers.
- Blood clots forming within veins (thrombophlebitis).

Medical issues to consider

The type of surgery required is determined from a number of tests, including a physical examination and an ultrasound scan. You need to discuss a range of issues with your doctor or surgeon including:

- Medical history, since some pre-existing conditions may influence decisions about surgery and anaesthetic.
- Any medications you take on a regular basis, including over-the-counter preparations.
- Any bad reactions or side effects from any drugs you have experienced.
- Whether or not you are pregnant. Varicose vein surgery is generally not advised for women during pregnancy.

Sclerotherapy

Smaller veins are usually treated by sclerotherapy, which is the injection of irritant chemicals into the affected vein. If the vein isn't visible to the eye, the surgeon will use an ultrasound machine to help guide the needle (echosclerotherapy). The irritant prompts the vein to spasm and collapse in on itself. In time, the walls of the collapsed vein heal together, and the sealed vein can no longer carry blood. A compression stocking worn on the leg helps to speed this process; small veins need compression for around three to six days, while bigger veins need about six weeks.

Sclerotherapy procedure

Allow at least one and a half hours for the actual procedure and additional time for walking around. The process includes:

- The surgeon marks the site of injection on the legs while the patient stands.
- The injections are given while the patient is lying down.
- The compression bandages and stockings are applied immediately following the injections. The bandages are meant to be tight.
- The patient is advised to walk for about half an hour.

Possible side effects of sclerotherapy

Some of the possible side effects and complications of sclerotherapy include:

- Allergy to the irritant solution.

- Irritation to veins other than the intended varicose vein.
- Inflammation of associated veins.
- Brown stains on the skin around the vein.
- Accidental injection of irritant solution into an artery, with subsequent tissue damage.

Surgical techniques

Major surface veins (long or short saphenous veins) that are varicose are usually treated surgically. Generally, numerous small incisions are used to access the vein, rather than one large cut. Depending on the location of the varicose vein, the incisions may, for example, be in the groin or behind the knee.

Surgical techniques include:

- **Ligation and stripping** - the vein is cut and tied off (ligation). Stripping the vein involves inserting a slender instrument into the vein through a small incision. The vein is then pulled out through a second incision.
- **Phlebectomy** - small incisions are made, and the veins removed with a special hook.

Immediately after the operation

After the operation, you can expect:

- Firm bandaging on the legs, to reduce bruising
- Pain-killing medication
- You will be encouraged to walk around
- A hospital stay of one or two days.

Common side effects of surgery

Some of the common side effects of varicose vein surgery include:

- Swelling, which may take a few weeks to subside. The feet and ankles are particularly prone.
- Scarring, although scars tend to be less noticeable than varicose veins and fade with time.
- Brown staining of the skin may occur, but tends to fade with time.
- The skin and calf muscle may be painful, swollen and bruised.
- Unintentional injuries to nerves may cause patches of numbness or 'pins and needles'. These patches may recover in time (up to two years in some cases) or they may be permanent.

Possible complications following surgery

Varicose vein surgery is considered to be safe, but all surgery carries some degree of risk. Possible complications may include:

- Infection, particularly if skin ulcers were present
- Blood clots forming within deep veins
- Bleeding or bruising.

Taking care of yourself at home

Be guided by your doctor, but general self-care suggestions include:

- Allow for one (or perhaps two) weeks off work following surgery. You will need to avoid any hard physical exertions during this time.
- Don't remove your bandages yourself. Leave bandages for your doctor to remove.
- To keep the bandages dry while showering, wrap your bandaged leg in plastic.
- Take at least a half hour walk every day.
- Sunburn can make scars look worse. Avoid sun exposure if possible for six months.
- Wear a compression stocking for as long as your doctor advises.
- Avoid prolonged periods of standing, or sitting with your legs crossed.
- Support stockings may be needed if your legs continue to ache.

Long term outlook

You will need to have a check-up a few weeks after surgery and, again, several months later. About 20 per cent of people who undergo varicose vein surgery will develop new crops of varicose veins given time.

Other forms of treatment

Some other forms of treatment for varicose veins include:

- The veins are sealed by electrical current (electrodessication)
- The veins are destroyed by laser or high intensity light.

Where to get help

- Your doctor
- Your surgeon.

Things to remember

- Varicose veins are knobbly, twisted and darkish-blue in appearance, and are most commonly found on the legs.
- Varicose veins are caused by faulty valves within veins that allow blood to pool.
- Treatment options include sclerotherapy and surgery to remove the veins.

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Southern Health

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