

Sclerotherapy - varicose and spider veins

Sclerotherapy is a treatment that involves injecting a solution into unwanted varicose or spider veins. These veins may appear on the legs or may be hidden under the skin and fat. The unwanted blood vessels are red or bluish in colour and are a common problem, particularly for women. Some small varicose veins are raised above the skin's surface and may cause aching.

Sclerotherapy is not just a cosmetic procedure. Varicose vein disease can cause many health problems such as blood clots, venous eczema, skin breakdown and ulceration and, rarely, skin cancers.

Causes of varicose and spider veins

The cause of varicose and spider veins is not known. However, in many cases, they run in families. Women seem to develop this problem more often than men. Changes in oestrogen levels in the blood may have a role in the development of varicose veins. This may be due to taking the contraceptive pill or hormone replacement therapy, or due to natural hormonal fluctuations such as puberty, pregnancy, breastfeeding and menopause. Other factors that may contribute include:

- Standing or sitting for long periods
- Being immobile for long periods (for example, being confined to bed)
- Lack of exercise
- Obesity.

How sclerotherapy works

The solution, which is injected into the vein, is called a sclerosant. It causes the vein to close by irritating the blood vessel so that it swells and sticks together. This process causes the veins to fade and eventually they can no longer be seen. Some vessels will have vanished by the time the support stockings are removed.

Each vein may require several injections, given some weeks apart. Multiple veins can be injected in one treatment session. Allergic reactions to the sclerosing solution are very rare.

Ultrasound guided sclerotherapy

Ultrasound guided sclerotherapy (UGS) uses ultrasound to locate the underlying leaking veins and aims to seal off the leakage points. The leakage could come from small 'perforating veins' that are usually below the knees, or main valves behind the knees or in the groin.

Some people have multiple leaking valves. UGS closes these abnormal veins and restores the circulation back to normal. UGS is best for people with:

- Very large varicose veins
- Leg ulcers
- Skin conditions (such as pigmentation or eczema).

Pain and the procedure

The injection uses a fine needle that causes a barely noticeable pinprick feeling. Some people experience a slight to moderate burning feeling immediately after the injection, but this disappears after a few seconds.

Following the procedure

To improve the blood circulation in the deep veins, it is essential to walk after the treatment. A compression stocking is worn to reduce the risk of bruising and swelling or other complications. Regular exercise, weight control and the use of support stockings (if practical) are recommended between treatments and after treatment.

Possible side effects

Possible side effects of sclerotherapy include:

- Bruising - usually at the site of the injection. This will disappear in a few weeks.
- Brown lines or spots - these may appear on the skin at the site of the injected blood vessels. This can occur when blood escapes from the treated vein into the skin. In most cases, this discoloration will disappear in time. In a small number of people (less than five per cent), the brown lines may last up to a year or longer. It is advisable not to take iron supplements while receiving sclerotherapy, as brown lines are caused by the iron content of the red blood cells. Laser therapy can treat stubborn lines or spots, although this treatment cannot be guaranteed to work.
- Lumps - may occur in larger injected veins. These are called 'trapped blood' and are not dangerous. They will either be removed a few weeks after the injection or will clear by themselves.
- Swelling - may occur in people who have had large veins treated. To prevent swelling, it is best to wear compression stockings after the treatment.
- Matting - a network of fine blood vessels can develop after sclerotherapy. This can be due to a number of reasons including lack of compression, inadequate compression, hormonal supplements, vitamin E supplements, use of anti-bruising creams or creams containing vitamin E, and inadequate treatment of underlying veins. Matting may resolve spontaneously but it may take a year or longer. It can also be treated using special injection techniques.
- Ulcers - these may form at the site of the injection. They can occur immediately after injection or a few days later. They are rare, but can be quite painful and usually leave scars after they heal.
- Inflammation (phlebitis) and blood clots - phlebitis and blood clotting can affect the treated large veins. It can be caused by a number of factors.

Possible causes of inflammation

Inflammation (phlebitis) and blood clots can be caused if:

- No compression has been applied.
- The applied compression has not been enough.
- You are on the contraceptive pill or hormone replacement therapy.
- There is an underlying tendency to clotting.
- The treatment has been performed just after long distance travel or a major operation.
- The underlying source of leakage in the vein has not been treated adequately.
- The inflammation extends to the deep veins, causing deep vein thrombosis (DVT). DVT is a rare but serious complication of sclerotherapy. It can extend to the lungs, causing pulmonary embolism (clots in the lungs) and even death.
- It is very important that women stop all hormonal supplements before sclerotherapy.

Minimising the risk of varicose and spider veins

The following suggestions may help to prevent varicose and spider veins:

- Wear support stockings.
- Maintain good weight control.
- Get regular exercise.
- Avoid wearing high heels, as they affect the proper functioning of the larger veins.

Where to get help

- Your doctor
- Dermatologist
- Australasian College of Dermatologists www.dermcoll.asn.au

Things to remember

- Sclerotherapy is the injection of a solution into varicose or spider veins.
- Most people can expect an improvement in the appearance of treated veins.
- Side effects of sclerotherapy may include bruising, swelling or brown lines or spots.

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