Patient Information Sheet

Varicose Veins

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Large, raised varicose veins or small unsightly surface veins, are both colloquially termed Varicose Veins:

Large Veins
In the large, raised veins, the blood flows in the wrong direction. ie downwards instead of towards the heart, because of the broken valves.

These valves can be broken in the groin, the back of the knee or sometimes the calf.

When the valve is broken, the flow of blood is reversed with gravity, causing pressure to be applied to the superficial veins making them enlarge.

The 'deep' veins in the leg don't form varicose veins because they are supported and surrounded by muscle. Only the superficial veins outside the muscle are subject to the pressure of form the large varicose veins.

Surface veins
Unsightly, blue, zig zagging reticular veins or 'spider veins' giving the appearance of red or blue blotches, which are unsightly.

Why do I get Varicose Veins?

The most significant reason is family history 70% of patients have a first degree relative who has varicose veins. The weak walled valves and veins are inherited and at some stage dilate causing the problems with varicose veins. Women get them 5 times more frequently than men due to hormonal differences.

In addition to the genetic factors there are also 'lifestyle' factors which can affect the veins.

Standing jobs, obesity, lack of exercise or the number of pregnancies can all be influential on your veins.

Genetics may be predisposed to give you the small unsightly veins without the larger ones or vice versa.

It can of course be a combination of all factors involved in your problem.

Proper diagnosis

Patients come to see the doctor for all manner of leg problems which may or may not relate to varicose veins. Some may see the small veins and want to know if the problem is serious. Others may be experiencing aches, pain, restlessness or swelling which they need to know about.

At this stage it is important to have a proper diagnosis to determine whether the problem relates to veins or something else. The patient is looked at clinically and then the veins are assessed with ULTRASOUND. This may be a hand held unit or a larger unit with a TV screen called a DUPLEX SCAN. This gives a picture of which way the blood is flowing, where the valves are broken and where the high pressure points are. This is the accurate method used to determine whether the patient needs to be treated by surgery or injection.

Treatment

- Reassurance when the veins are not the cause of the problem.
- Support stocking in half or full length, pantyhose etc. These can support the veins and muscles making the legs feel better and hiding the varicose veins.
- Medication – tablets or capsules can be taken to relieve the symptoms. PAROVEN which is made from the

extract of rubber plant root, helps the symptoms of aches, pain, restlessness and cramps in the legs.

- Injection treatment is used when there is no major valvular dysfunction or broken valves. It involves injecting a solution into a segment of the vein, setting up a chemical phlebitis or irritation of the vein and then compressing the leg either by bandages or stocking to oppose the vein walls, pushing the walls together thus shrinking the vein down, causing them to fibrose and almost disappear. This is good for the smaller reticular, tiny flare veins.
- Surgery is used where there are broken valves in the groin or back of the knee causing a major rush of blood. These have to be 'turned or tied off' by surgery. Surgery used to be a major procedure, but has now become far less intrusive, less aggressive and less traumatic on the legs using smaller and smaller cuts instead of the major, unsightly cuts that used be the norm. The period in hospital has now been refined to one day instead of a prolonged period.

A great deal of cosmetic planning done before surgery can minimize the amount of cutting to be done. With some simpler cases the surgery can actually be done in the doctor's rooms instead of hospital.

After surgery

There is a short hospital stay (24 hours) usually involving a general anaesthetic and firm bandaging for 2 to 3 days. After the bandages are removed there is bruising visible which actually looks much worse than it is. The colour changes after 5 to 7 days from black to brow to yellow and then the blood is absorbed.

There is still hardness along where the vein is removed, often with associated swelling and tender spots in the calf and ankle. This settles to about 80% in a couple of weeks with the remaining 20% taking approximately 6 to 8 weeks. Patient are up and walking very quickly after surgery, (within2 to 3 hours).

Sometimes if they work from home they can be back working within a few days. If however they have to travel a long way to work or have a job requiring long periods of standing it can take up to 3 or 4 weeks. Stitches are removed on day 8 or 9. In most cases some support is still necessary by way of tubular stockings to support the bruised and swollen areas

After injection treatment

Compression is applied to the leg to close off the vein to allow the solution injected to shrink the vein. This compression is maintained for two weeks. Below the knee the compression is often achieved by bandages while above the knee it is achieved by pantyhose.

The compression helps in sealing the vein and shrinking it down. During this time the patient must walk a lot to circulate the blood to avoid thrombosis.

One in seven thousand patients who have injection treatment in their small veins, can get a thrombosis in the deep veins, which is potentially a serious problem.

Potential complications and risk factors of Varicose Veins.

The small spider and unsightly veins may cause stinging and aching but do not pose a serious risk of complications.

It is the larger, raised true varicose veins that deliver the high pressure into the leg which can cause the complications.

These can include:

- Clotting – either in the superficial varicose veins themselves or the deep veins of the leg which can be a serious problem.
- Can make the skin itchy and hot; varicose eczema; scaling on the skin; a darkening of the skin towards the ankle known as pigmentation.
- The soft fatty layer of tissue near the ankle can become hard and lumpy-known as "woody leg'.
- Varicose veins may cause skin to break down causing a leg ulcer.
- Bleeding is a very common complication when the vein comes through the skin and starts to bleed unexpectedly eg in the shower or when using a towel to dry after a shower.

Potential complications arising from treatment

Patients have to be aware that all treatment carry some small risk of complications – although the chance of complications is very small indeed. In many cases however it is more of a risk to leave the veins untreated.

Surgery

A general anaesthetic is involved and is very safe. However, there is always a minimal risk with anaesthetics.

Some cuts, bruising and pain but all settle fairly quickly.

The three serious complications regarding surgery are:

- Thrombosis
- Nerve Damage
- Infection

Thrombosis – This relates to suffering a clot in the deep veins and can occur after any surgery. It is no more common after varicose vein surgery than any other. Precautions can be taken such as females going off the pill or hormone replacement therapy, or in over 40 year olds, an injection of Heparin to thin the blood. Early mobilisation after the operation is also very important.

Nerve Damage – When removing a lot of superficial veins, it is possible to injure or stretch cutaneous nerves, leading to numb or tingly patches on the skin, most commonly down near the ankle. This does not usually disable or prevent the patient from walking but can be annoying. In most cases this subsides after some months.

Infection – Varicose vein surgery is regarded as clean surgery and the patient is not usually given prophylactic antibiotics. If the wounds do become red or look as though they are becoming infected, you can get antibiotics from your surgeon or family doctor as soon as possible.

Overall, varicose veins surgery is extremely safe.

Injection treatment

Being allergic to the solution injected – There are commonly three solutions used in Australia today: Strong salt solution (Hypertonic Saline), sodium tetradecyl sulphate. Aethoxysklerol.

No matter which solution used, there is a possibility you could be sensitive or allergic to it. This is extremely rare but some cases have been reported.

Injection Ulcers – If the solution injected leaks out it can cause damage to the surrounding tissue and even the skin. The skin can from a scab which can peel off. Occasionally the patient can get a scab overlying the vein. The damage does heal but can be painful or annoying for a few weeks.

Clotting – One in seven thousand patients who have injection treatment can get a clot in the deep veins. To help prevent this patients are encouraged to walk a lot – 20 minutes, 3 times a day – to circulate the blood so it does not stagnate or clot.

Pigmentation – If there is a strong reaction to the solution, there may be brown staining over the vein. This may take some months to absorb, but will disappear.

New Vessel Formation – Sometimes the response to the injections can be the formation of very fine red veins in the local areas. If this happens, no more injections should be attempted until it settles spontaneously. If it does settle, cease the form of treatment.

Having said all that, injection treatment is still a very popular, common and well tolerated method of treatment for suitable veins.

Recurrence

If you have a genetic disposition or family tendency to develop varicose veins, all the veins in the legs have weak walls in them.

If you operate to take out the offending ones, others, which appeared normal at the time, can dilate. More varicose veins appearing at a later stage is not uncommon. It is therefore not possible to say that an operation will ‘cure’ the condition.

The lower the age at which surgery is first undertaken, the longer period you have to develop further varicose veins. Patients in their teens or twenties have a good chance of developing more veins. This is particularly so for females having children.

In older age groups the results are usually better with less reoccurrence.

After injection treatment

Other veins can appear and the ones injected can reopen in the future. To help prevent this, avoid prolonged standing, avoid being overweight. And take regular exercise. In some cases support stockings are of benefit in alleviating symptoms.

If you are predisposed to get varicose veins, it is not easy to escape.

Success rate

Surgery – Well executed surgery is very successful in terms of relieving the symptoms and taking away the unsightly nature of the veins.

It is very difficult to predict accurate, long-term success rate because not all patients are followed up by the one surgeon with some patients not getting follow-up at all.

Regular, on-going maintenance treatment is encouraged following surgery, which means seeing your GP every three to four years to assess whether any new veins have appeared and threat them early before they get out of control.

The success rate is far higher with these regular follow-ups, rather than letting further problems get out of hand over a long period.

Injection Treatment – There is a 50 to 70% improvement in appearance of the veins, NOT 100% - it is not a 'miracle cure'.

Patients need to have a realistic expectation of what is achievable.

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