VEINDOCTORS
GROUP

Modern and minimally invasive treatment for:

- Spider Veins
- Varicose Veins
- Venous Ulcers
- Facial Veins
- Hand and Arm Veins
- Pelvic Veins – Pelvic Congestion & Varicoceles
- Haemorrhoidal Veins
- Swollen Legs – Lipoedema & Lymphoedema

Please read this document carefully
and clarify any concerns prior to treatment.

Phone: 1800 4 VEINS or 1800 483 467
Email: info@veindoctorsgroup.com.au

Visit: www.veindoctorsgroup.com.au

Contents

ADVANTAGES OF TREATMENT WITH VEIN DOCTORS GROUP:

- ✓ Outpatient and hospital admission available
- ✓ Anaesthetic options available for complicated cases or needle phobias (private health insurance rebates apply)
- ✓ Walk-in, walk-out procedure
- ✓ Experts in swollen legs
- ✓ High safety profile and low complication rates
- ✓ No surgical scarring
- ✓ Results that last
- ✓ High patient satisfaction

Vein Doctors Group offers treatments by doctors who are sub-specialising in venous disease management under the training program of the Australasian College of Phlebology.

What is *Phlebology?*

Phlebology is the branch of medical science concerned with the anatomy and diseases of the veins, lymphatics and lipoedema (diseased fat of the limbs) and the subsequent diagnosis and treatment of these diseases.

This includes:

- Spider veins
- Varicose veins
- Venous ulcers
- Facial veins
- Hand and arm veins
- Pelvic veins – pelvic congestion & varicoceles
- Haemorrhoidal veins
- Lipoedema (conservative management & surgical management)
- Lymphatics

Our phlebologists are experts in managing veins and swollen legs.

For more information, please visit the Australasian College of Phlebology website at www.phlebology.com.au

Types of veins

Venous disease is very common and affects about 30% of the population. There are three common types which are frequently seen in combination.

1. **Spider veins** are delicate, red, web-like veins that appear on the surface of the legs. They are also known as 'telangiectasias' and are usually fed by larger reticular veins. These veins are biologically superfluous.
2. **Reticular veins** are larger, blue veins under the skin and often referred to as 'feeder veins'. They can appear larger than spider veins and flatter and less twisted than varicose veins.
3. **Varicose veins** are the largest veins and result in unsightly bulging knots above the skin surface due to a weakness in the vein wall. Varicose veins most commonly appear on the legs and feet. Symptoms associated with varicose veins include heaviness, burning, aching, stinging, throbbing, swollen ankles, restless legs and leg cramps. The presence of a skin rash, small blue veins on the feet, skin discolouration, ulcers and scarring are usually due to advancing vein problems. Treating the abnormal veins will significantly improve symptoms for majority of patients.

Spider veins

Varicose veins

WHAT CAUSES ABNORMAL VEINS?

The exact cause of abnormal veins remains uncertain. However, a strong family history indicates that some individuals may inherit veins that are more prone to deterioration. In women, oestrogen levels can contribute to vein abnormalities, particularly during puberty, pregnancy, and with the use of oral contraceptives. During pregnancy, the enlarged uterus can impede blood flow from the legs, leading to the development of varicose veins. Additionally, both spider veins and varicose veins are commonly linked to obesity. Jobs that require prolonged standing can also increase the likelihood of vein issues. Localised vein abnormalities may arise from bone fractures or soft tissue injuries. It's important to note that crossing your legs does not cause varicose veins.

HOW DO VARICOSE VEINS DEVELOP?

Healthy veins circulate blood from the extremities back to the heart, assisted by calf muscle contractions and one-way valves that prevent backward flow. Varicose veins occur when these valves fail, causing blood to pool and veins to swell, appearing lumpy and darkish-blue. Factors such as lack of exercise, physical trauma, pregnancy, obesity, or genetics can increase the risk of valve failure.

Blood in leg veins normally travels upward to the heart, but gravity causes it to try to flow back down towards the feet. Healthy valves prevent this abnormal flow, but when they break down, it leads to increased pressure in the veins. This pressure causes the vein walls to expand and bulge, producing varicose veins. These swollen and twisted veins serve no useful function in circulation.

The body can establish alternative pathways to bypass the abnormal veins. When varicose veins are closed, the circulatory system improves, alleviating many symptoms. It's important to note that varicose veins can be a progressive condition, with new veins potentially developing over time. Most patients may require ongoing maintenance treatment to manage the condition effectively.

CAN VEIN PROBLEMS BE PREVENTED?

If you are prone to vein problems, maintaining a normal weight and avoiding prolonged standing can help minimize the risk. Wearing venous support stockings can ease symptoms and slow progression. To reduce further issues, maintain a healthy lifestyle, use compression stockings, and elevate your legs when resting or sleeping.

What to expect on your first visit?

Your initial consultation at Vein Doctors Group will be a comprehensive and informative experience.

This initial consultation generally takes 30-60 minutes including an ultrasound scan and will include a physical examination of your legs.

Our doctors will first discuss your medical history with you and examine the areas of concern. Our team will then utilise state of the art ultrasound imaging equipment to examine your condition. This innovative technology provides the highest imaging resolution available to allow our medical professionals to examine both deep varicose and superficial veins with ease.

The results of this examination will be discussed and our doctor will answer any questions in relation to your condition. After discussing the various treatment options available you will be provided with a cost assessment and treatment schedule.

VEIN DOCTORS PATIENT RESULTS

BEFORE

AFTER

BEFORE

AFTER

In trained hands, modern varicose vein treatment has become a superior procedure to surgical stripping.

For more information refer to the NICE and European Guidelines for treatment of varicose veins: https://www.nice.org.uk/guidance/cg168/chapter/Key-priorities-for-implementation

How do modern, minimally invasive treatments work?

At Vein Doctors Group, our modern, walk-in walk-out procedures offer a far lower recurrence rate than traditional vein stripping. It's also less invasive, with minimal discomfort and no scarring; we plan your treatment from an ultrasound scan, and we typically see 80-90% improvement 3-6 months after treatment.

We offer the following modern, minimally invasive treatment methods performed under ultrasound guidance:

Microsclerotherapy/Direct Vision Sclerotherapy - Injection Microsclerotherapy is specifically reserved for treating small veins, including unsightly spider veins and small reticular veins. This treatment uses direct vision sclerotherapy (DVS), which, as the name suggests, is used to treat veins that are visible on the skin to the naked eye. The procedure involves injecting a sclerosant foam into these veins to reroute blood through other blood vessels, causing the diseased vein to collapse, harden, and ultimately heal; with the aim of making the vein disappear.

To enhance precision, doctors may utilize magnification goggles that help guide the very fine sclerotherapy needle into the visible veins. These magnification tools can be beneficial for targeting smaller veins more accurately and for ensuring the foam is delivered precisely where it is needed.

This treatment method is effective for improving the cosmetic appearance of the legs, reducing the visibility of varicose and spider veins while preventing potential complications that could arise if these veins remain untreated.

Ultrasound Guided Sclerotherapy - Ultrasound Guided Sclerotherapy is a highly effective treatment used to treat abnormal varicose and spider veins, that are not visible on the skin.

Traditionally invasive surgery was required to remove these veins, but with ultrasound guided sclerotherapy our doctors can accurately direct injections into the diseased veins whilst avoiding vital structures.

The detergent sclerosant solution is converted into foam with the addition of a small amount of air. The use of foam has proved to be advantageous in patients with varicose veins.

Published studies from Australia and New Zealand support the safety and efficacy of foamed sclerosants. The Australasian College of Phlebology in (2004) has developed guidelines for the use of both sclerosant solution and foam. The Therapeutics and Goods Administration (TGA) have approved the use of sclerosant solution for clinical use in Australia several years ago. However, this approval was granted before Foam Sclerotherapy was introduced and properly evaluated. Applications have been made to the TGA for the use of foam, but this approval process takes time. Until then, the use of foam does not have formal TGA approval. However, foam can be used as an "off label "product provided consent has been obtained and if there is a benefit to the patient. Should you have varicose veins then using foam is now considered a more effective option.

Ultrasound technology guides the placement and number of injections required according to the disease process which is not possible by treating the surface veins only. Namely the source of the pathology, the size of the vein and volume and concentration of sclerosant required and where the disease vein ends. The ultrasound is then used to assess the success of the treatment and guide any additional treatment if required.

Ultrasound guided sclerotherapy is not a blanket cure for varicose veins, and as such it cannot prevent the development of new varicose veins over time. That said, treating existing damaged veins will slow down the development of varicose and spider veins.

It is important to realise that successful and safe sclerosant injection into a vein is more than just targeting the surface pathology. Detergent sclerosants have been available for 80 years however how they interact with the blood and vein wall is now becoming clearer by recent research. One prominent international researcher is Australian Professor Kurosh Parsi in Sydney who is the World President of the International Union of Phlebology and was Dr Lekich's supervisor for his fellowship training. This research has changed Dr. Lekich's approach to fine tune ultrasound guided sclerotherapy which is one of the cornerstones of modern non-

surgical/ non-stripping treatment approaches of varicose vein management.

For patients with symptoms that suggest a hole in the heart (or patent Foramen Ovale), an onsite test can be performed to ensure high risk patients are screened and stroke risk managed prior to undergoing a UGS procedure.

One in four people have a hole in the heart. Symptoms for a hole in the heart include:

- Migraines with Aura
- Stroke
- Exercise Intolerance
- High Blood Pressure
- Brain Fog
- Fatigue
- Shortness of Breath

The test carried out onsite is called a Transcranial Doppler. The Transcranial Doppler is the most sensitive way to flag a hole in the heart. It is more sensitive than a transoesophageal echocardiogram (TOE) and a trans-thoracic echocardiogram (TTE). A general anaesthetic is not required. Apart from the 'drip' in the arm or leg, it is a painless test that uses ultrasound to detect real time measures of blood flow velocity throughout certain parts of the vascular system in the brain. The TCD test requires a small amount of saline solution with micro bubbles to be injected into a vein while brain activity is monitored. If any of the micro bubbles have reached the brain, this is an indication that unfiltered blood is circulating through the body. The number of micro bubbles that reach the brain can be accurately counted to determine how significant the abnormality is.

Endovenous Laser Ablation (EVLA) – Endovenous Laser Ablation is used at Vein Doctors Group to treat larger veins.

This treatment is a great alternative to traditional invasive surgical vein stripping and can be done in the clinic as an outpatient, or in our licensed private hospital as an inpatient for complex cases or anxious, needle-phobic patients.

With EVLA there is no need for bed rest and inactivity. During this treatment local anaesthetic is used to minimise any feelings of discomfort.

The principle of EVLA involves the insertion of a thin fibre optic probe into the vein under ultrasound guidance. Once positioned accurately, the probe emits laser energy, which heats the vein and causes it to collapse, and seal shut. Over time, the treated vein is reabsorbed by the body, effectively eliminating the source of the problem.

One of the significant advantages of EVLA is its minimally invasive nature, which translates into several benefits such as reduced pain, minimal scarring, and a quicker return to daily activities compared to more invasive surgical options. Further the precision of laser treatment minimizes damage to surrounding tissues enhancing the recovery process.

Large veins generally respond well to this procedure with many patients experiencing a

VENOUS ULCER CASE STUDY

BEFORE

AFTER

This female patient, 45 years of age, had three years of unnecessary pain and suffering with a venous ulcer. The ulcer closed in four (4) weeks after one treatment.

dramatic change in the appearance of their legs.

When EVLA and Ultrasound Guided Sclerotherapy(UGS) are used together, this generally optimizes the success of treatment of large varicose veins. After this treatment we will ask you to walk for 30-40 minutes to maximise the effects of this procedure. You may then resume most normal activities.

EVLA and UGS enables safe and effective treatment of the most complex and severe varicose veins and is not a temporary cosmetic solution for varicose veins.

Radio Frequency Ablation (RF) - Using ultrasound, an RF fibre is placed into the abnormal vein through a small incision in the leg. The vein is then numbed with local anaesthetic, and the fibre is activated.

The fibre is slowly moved along the vein to be treated. Radiofrequency energy is released from the tip of the fibre, producing a thermal reaction in the vein wall, resulting in collapse and sclerosis of the vein wall with minimal discomfort afterwards.

What is the difference between ELVA and RF?

RF utilises Radiofrequency Waves rather than Invisible Laser Light used in EVLA to help heat and seal the vein shut. RF uses a computer to deliver the most appropriate amount of energy required to close the vein, whereas EVLA relies on the operator to pull back the laser fibre to deliver the appropriate amount of energy to ablate the vein.

Medical Superglue - Medical Superglue is marketed as an alternative to EVLA. Experienced phlebologists would tend not to use Medical Superglue with high volumes where there are more superior methods of ablating veins using endovenous ablation, where there is no residual Superglue in the vein. There are, however, complicated conditions such as significant perforators that are root source veins that may not be as easily treated with endovenous ablation alone. In this instance veins are spot welded with very low volumes of Medical Superglue as an adjunct to endovenous ablation and UGS.

To achieve the best results, some patients will require a combination of the above treatment methods. Most modern treatments are followed by the application of compression stockings. All patients are advised to walk regularly and when combined with the use of compression stockings this largely assists with the success of treatment.

Compression following treatment

Following each treatment, you will be required to wear a Class 2 compression stocking to assist closure of the treated veins and protect against deep vein thrombosis (DVT). The length of time the stocking needs to be worn varies from three days to three weeks depending on the size of the veins injected and the treatment method used. It is important to follow the provided compression instructions carefully to achieve the best results.

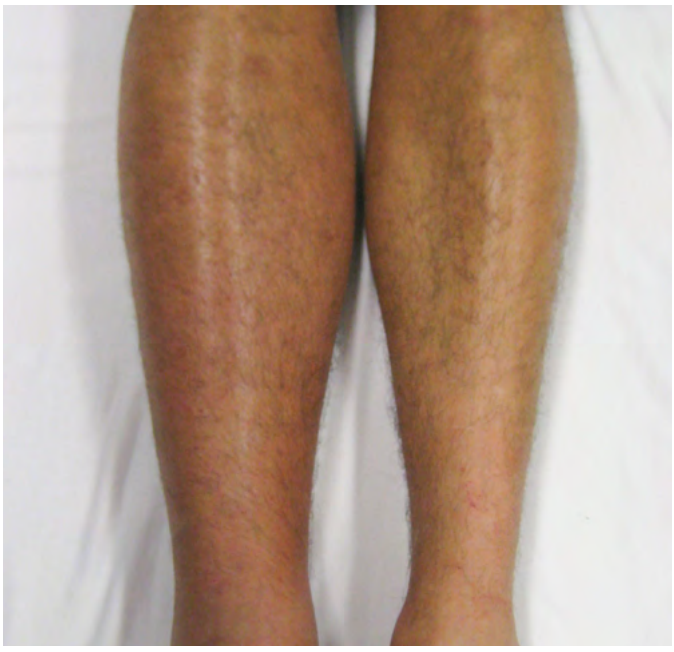
What are the side effects of vein treatments?

Common side effects include stinging, bruising, darkening of spider veins soon after treatment but fading over the next few weeks, aching legs immediately after treatment and phlebitis which can be improved with exercise and compression. A consent form that outlines the full list of risks and concerns will be provided by your doctor.

What are the possible complications of vein treatments?

While rare, it is important to note the potential complications associated with vein treatments. Some potential complications are listed below and are fully outlined in the consent form.

- **Pigmentation** is the appearance (1:10) of brown marks on the skin near the treated veins. This is a common consequence when treating spider vein clusters with microsclerotherapy. These marks gradually fade within 3-12 months although faint pigmentation lasting greater than 12 months has been reported in 5% of cases. Close attention to wearing the compression stocking and removing trapped blood during your follow-up appointments can minimize pigmentation. It is advisable to stop iron supplements before your treatment.
- **Matting** is the formation of fine spider veins, often on the thighs. It usually resolves on its own, though some cases may require further injection treatment or may persist despite it. Matting is more common in individuals with extensive surface veins or poor muscle tone and can follow varicose vein surgery. It is generally not seen with endovenous laser or radiofrequency ablation.
- **Ulcers** of the skin are rare and usually appear as small, painful sores within two weeks of sclerotherapy treatment (9:1000). They heal slowly and leave a scar, which can be excised if unsightly. Ulcers are more common in people who smoke cigarettes or who have certain associated skin conditions
- **Allergic Reactions** to either the sclerosant used or to the local anaesthetic are rare (3:10,000) but may be serious. Some reactions require immediate treatment. Should you feel any abnormal sensations during treatment such as generalised itchiness, nausea or shortness of breath, please tell our doctor so we can immediately provide appropriate treatment.
- **Phlebitis,** occurring in 3% of cases, presents as tender, red, swollen areas due to inflammation of treated veins. It may include tender lumps from trapped blood, a common reaction. This can be treated with anti-inflammatory medication (like Nurofen or Voltaren Rapid), walking, and wearing compression stockings. Contact us if you experience excessive tenderness.
- **Migraine** sufferers may experience visual disturbances (1:1000) lasting a few minutes when treated with injection sclerotherapy. This may be followed by the onset of a headache (2:1000). Taking a mild analgesic such as Panadol or Panadeine or anti-migraine medication can provide relief. Should you suffer with migraines then it is best to attend with a friend who can assist with driving home.



Different size legs can be a sign of a serious underlying condition.

- **Deep Vein Thrombosis (DVT)** is a rare but serious clot in the deep venous system. The risk is less than 1:2000 patients for sclerotherapy and even lower for endovenous ablation if compression stockings are worn and daily walking is maintained. Prophylactic treatment will be advised if your risk of developing DVT is higher. DVT can lead to life-threatening pulmonary embolism. Avoid long-distance travel (over 4 hours) for 4 weeks post-treatment. Symptoms include a painful, swollen leg, shortness of breath, coughing blood, and chest pain. If you experience these, contact your doctor or go to the emergency department immediately.

- **Intra-arterial injection** is an extremely rare (1:10,000) complication that can result in significant muscle and skin damage or the loss of a leg. This now rarely occurs due to the use of ultrasound guidance of the needle, which allows for a more accurate placement during the injection procedure.

Precautions

- **Pregnancy and breastfeeding** - sclerotherapy is best avoided during pregnancy and breastfeeding, despite the lack of documented evidence suggesting it is unsafe. Vein treatments during pregnancy are often less effective and may produce poor results. It is recommended to avoid sclerotherapy if you plan to become pregnant during the treatment course. Veins that appear during pregnancy should be treated before the next pregnancy to prevent further deterioration.

- **Oral contraception and hormone replacement therapy** - both oestrogen and progestogen have been implicated in increasing the risk of thrombosis whether you have a vein treatment or not. Taking an oral contraceptive pill or HRT may increase the risk of deep vein thrombosis.

  Total correction of this increased risk requires ceasing hormone treatment for a minimum of 4 weeks. The increased risk seems to lessen the longer you have been on the medication. There is no current evidence demonstrating that during sclerotherapy or endovenous laser and radiofrequency ablation treatment, the taking of the oral contraceptive pill or HRT medication actually increases the risk of thrombosis. However, this is controversial among experts in vein treatment.

  The relative merits of ceasing or continuing hormone therapy prior to sclerotherapy and endovenous laser and radiofrequency ablation treatment will be discussed. There are no reported long-term side effects from the use of sclerosants or laser treatment.

Your questions answered

Will the injection procedure hurt?

The amount of discomfort felt will vary with each individual. The needles are small, and many are hardly felt at all. The injected solution can sting slightly for short periods of time. If endovenous ablation is used, minimal discomfort is experienced as it is performed under local anaesthetic.

Will the vein treatment interfere with my work or home duties?

This is a walk-in, walk-out procedure for outpatients treated in the clinic. Most treatments take about 60 minutes to perform. Following treatment, your daily routine should not be disrupted, however heavy physical exercise or workloads should be avoided for about 2 weeks following each treatment.

Should I have treatment for my varicose veins?

Vein disease is progressive and if left untreated, is likely to become worse over time. Increasing symptoms that can occur with untreated varicose veins include leg tiredness, heaviness, aching, throbbing, restlessness, tingling, itching, numbness, rashes and swelling. More serious complications such as phlebitis, blood clots, dermatitis, and vein ulcers can develop if varicose veins are left untreated.

Do I need these veins?

Varicose veins and spider veins are not functional. Once veins become abnormal our body finds alternative pathways with healthy veins to carry blood. You can never run out of veins. Varicose veins are not missed by the circulation, in fact, it improves without them.

Is varicose vein treatment permanent?

Treated correctly, the veins will not come back as the body has absorbed them. When varicose veins, which are abnormal veins, are closed-down, the circulatory system improves, as do many of the symptoms. Our body can establish alternative pathways to bypass the abnormal varicose veins, once they are closed-down. It is important to understand that varicose veins can be a progressive condition and that new veins can develop with time.

Monitoring with ultrasound may be important to establish if there are any new abnormal veins that are best treated, bearing in mind that this condition is genetic and normal veins that aren't targeted at the initial treatment may require treatment in the future.

What about topical skin lasers for spider vein treatment?

Despite the proven usefulness in the treatment of large varicose veins using endovenous laser ablation, the treatment of leg veins by laser light to the skin has thus far been disappointing. Currently available lasers can be very useful in treating the tiny cosmetic facial veins, also treatable with sclerosant injections, but have been significantly less effective on leg veins when compared to expert sclerotherapy. Also, topical laser therapy is far from painless.

Can varicose vein treatment be done with surgery?

Our licensed, accredited hospital, which is purpose built for varicose vein treatment is suited for more complicated medical conditions or when patients have needle phobia. There are benefits of having your veins treated in theatre such as:

- When asleep, the veins are more relaxed to make catheter access more straight-forward.
- More injections can be done, which may not be tolerated by patients who are awake in the outpatient clinic.
- A whole medical team of nurses and an anaesthetist to support your treatment, particularly for complex veins and complex patients.
- In some cases, there are no additional costs for the hospital, except your private health insurance excess and the anaesthetist's fee. The doctor fee would be the same. In most instances consumable costs are covered by the hospital as an inpatient, whereas outpatients cover the costs of consumables.

APPOINTMENTS

To ensure timely care, we recommend booking your follow-up appointment/s with our receptionist at your initial consultation, as availabilities can fill up quickly, leading to potential wait times.

FEES - PAYMENT AND REBATE

The number of treatments required to provide a significant improvement in your condition will be determined at your first consultation and outlined with your quote. Medicare rebates are available for most treatments. Payment is required prior to each treatment.

Why choose Vein Doctors Group?

High Patient Satisfaction

Proven success in achieving both a great medical and aesthetic result.

Treating the Root Cause

Avoid recurring vein issues with deeper analysis.

Ultrasound Guidance

Individualised treatment based on vascular diagnostic ultrasound imaging.

Experienced Phlebologists

Extensive training from the Australian College of Phlebology.

Understanding Vein Health

Learn why veins change and how to prevent problems.

Long-Term Care

Follow-ups ensure your veins stay healthy.

Results That Last

We target the source for a lasting outcome.

Experts in Swollen Legs

Sub-specialised training in lipoedema & lymphoedema.

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Head Office – Miami Gold Coast – For other locations, please refer to our website.