

A Comprehensive Comparison of Endovenous Laser Therapy and Sclerotherapy

Jane Doe*

Department of Vascular Surgery, University Hospital, New York, United States

DESCRIPTION

Endovenous Laser Therapy (EVLT) is a modern, minimally invasive procedure used to treat varicose veins, especially in cases of large, symptomatic veins. The procedure involves the insertion of a laser fiber into the affected vein through a small catheter, which is guided by ultrasound imaging. Once positioned correctly, the laser fiber delivers heat, causing the vein to collapse and seal shut. Over time, the treated vein is absorbed by the body and blood flow is rerouted to healthier veins. EVLT is highly effective in treating large, varicose veins, with success rates often exceeding 90%. Clinical studies have demonstrated that EVLT can significantly reduce the size and appearance of varicose veins, while also providing long-term symptom relief. Studies have shown that the procedure effectively eliminates the incompetent vein, with a low risk of recurrence. In one systematic review, patients treated with EVLT had a success rate of 96%, with a notable reduction in symptoms such as pain, swelling and leg heaviness.

EVLT offers several advantages over traditional surgical techniques, such as vein stripping. The procedure is minimally invasive, performed under local anesthesia and typically takes less than an hour. Patients experience less postoperative pain, a shorter recovery period and a quicker return to normal activities. Moreover, EVLT can be performed on a variety of vein sizes, making it a versatile option for treating different stages of varicose veins. Additionally, the procedure has a lower risk of complications such as Deep Vein Thrombosis (DVT) and nerve damage compared to conventional surgical methods. Despite its advantages, EVLT is not without its risks. Some common side effects include bruising, swelling and tenderness along the treated vein. In rare cases, patients may experience thermal injury to surrounding tissues, which can cause skin burns or nerve damage. While rare, there is also a possibility of blood clots forming within the treated vein. Furthermore, the initial cost of EVLT can be higher than other treatments due to the specialized equipment required.

Sclerotherapy is a well-established and highly effective treatment for smaller varicose veins and spider veins. During the procedure, a sclerosing agent, typically a liquid or foam, is injected directly into the affected vein. The sclerosing agent causes the vein walls to collapse, leading to fibrosis and closure

of the vein. Over time, the treated vein is reabsorbed by the body and blood flow is redirected through healthier veins. Sclerotherapy is particularly effective for treating small to medium-sized varicose veins and spider veins. It has been shown to have success rates of around 80-90%, with a high degree of patient satisfaction. For smaller veins, sclerotherapy is often the treatment of choice, as it is less invasive and can be performed in a clinic setting without the need for ultrasound guidance in some cases. However, the treatment may require multiple sessions to achieve the desired cosmetic results and it is less effective for larger veins or those with more severe reflux. Sclerotherapy is a relatively simple procedure that does not require anesthesia, making it well-suited for patients who may not be candidates for more invasive procedures. It can be performed quickly, with minimal downtime. Most patients can resume normal activities immediately after the treatment. Additionally, the procedure is cost-effective compared to other treatment options like EVLT, making it an appealing choice for patients seeking more affordable solutions for varicose vein treatment. Sclerotherapy, while effective for smaller veins, has limitations when it comes to larger veins or veins with severe reflux. The treatment may not provide long-term results for larger varicose veins and recurrence rates are higher than with EVLT. Sclerotherapy can also cause temporary side effects such as bruising, redness, or itching at the injection site. In rare cases, patients may experience allergic reactions or the formation of blood clots, although this is uncommon.

CONCLUSION

In conclusion, both Endovenous Laser Therapy and sclerotherapy have proven to be effective treatments for varicose veins, with their respective benefits and limitations. EVLT is ideal for larger veins and more severe cases, providing long-term relief with fewer complications and faster recovery. Sclerotherapy, on the other hand, remains a highly effective, cost-efficient option for smaller varicose veins and spider veins. The choice between these two treatments depends on the size and severity of the varicose veins, as well as the patient's preferences and the expertise of the healthcare provider. Ultimately, both treatments offer significant improvements in both the physical and aesthetic symptoms of varicose veins, enabling patients to live more comfortably and confidently.

Correspondence to: Jane Doe, Department of Vascular Surgery, University Hospital, New York, United States, E-mail: janedoe@universityhospital.edu

Received: 19-Nov-2025, Manuscript No. AOA-25-40125; **Editor assigned:** 21-Nov-2025, PreQC No. AOA-25-40125 (PQ); **Reviewed:** 05-Dec-2025, QC No. AOA-25-40125; **Revised:** 12-Dec-2025, Manuscript No. AOA-25-40125 (R); **Published:** 19-Dec-2025. DOI: 10.35841/2329-9495.25.13.595

Citation: Doe J (2025). A Comprehensive Comparison of Endovenous Laser Therapy and Sclerotherapy. Angiol Open Access. 13: 595.

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