



COVIDIEN

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FAQs

- What is Venefit™ Targeted Endovenous Therapy?
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The Venefit™ procedure is a minimally invasive treatment that uses radiofrequency (RF) energy to effectively treat patients suffering from varicose veins or Chronic Venous Insufficiency (CVI). A vein specialist inserts a catheter into a diseased vein to provide consistent and uniform heat to contract the collagen in the vein walls, causing them to collapse and close. After the vein is sealed shut, blood is then naturally redirected to healthy veins.

The 2009 RECOVERY Study confirms that patients experience less bruising, and pain, and fewer complications with the Covidien ClosureFast™ endovenous radiofrequency ablation (RFA) catheter in comparison to 980 nm laser ablation.^{1, 4}

The Venefit™ procedure also results in little to no scarring and is generally performed using local anesthesia in a vein specialist's clinic or a same-day surgical facility or hospital.

- What is Chronic Venous Insufficiency (CVI)?
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CVI is a progressive medical condition in which the valves that carry blood from the legs to the heart no longer function, causing blood to pool in the legs and veins to swell. This incorrect blood flow (or reflux) causes veins to expand, lose form and protrude from beneath the skin. Common symptoms include pain, leg swelling, leg heaviness and fatigue as well as skin changes and ulcers in more severe cases.

Varicose veins are often thick, bulging veins that can protrude well beyond the skin's surface. Often misunderstood as a cosmetic issue, varicose veins can progress to CVI, which is a more serious condition.

- How do you treat varicose veins and CVI?
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Since the valves in the legs cannot be repaired, the only alternative is to re-route blood flow from the diseased veins to healthy veins. Traditionally, this has been done by surgically removing (stripping) the troublesome vein from your leg. The Venefit™ procedure, however, provides a less invasive alternative to vein stripping by simply closing the diseased vein. Once the diseased vein is closed, it becomes scar tissue and is eventually absorbed by the body.

- How is the Venefit™ procedure different from vein stripping?
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Vein stripping is a surgical procedure, where, the surgeon makes an incision in your groin and ties off the vein, after which a "stripper" tool is threaded through the leg vein in order to pull it out through a second incision just above the calf.

The Venefit™ procedure, is minimally invasive. In contrast to vein stripping, the vein remains in place and is closed using a special catheter inserted through a small incision below the knee.

Vein stripping is usually performed in an operating room under a general anesthetic, while the Venefit procedure is often performed using local or regional anesthesia.

- How is the Venefit™ procedure different from laser ablation treatment?
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The Venefit™ procedure utilizes radiofrequency energy to provide consistent and controlled heat to contract the collagen in the vein walls, causing them to gently collapse and seal. Once a leg vein is closed, blood flow is redirected to healthy veins.

Laser ablation, on the other hand, uses laser heat to collapse and seal the affected vein. The laser targets the blood in the vein, which causes the blood to boil. This heat creates a steam bubble inside the vein, creating damage to the vein so that the vein collapses. Unlike the Venefit procedure, laser temperatures can reach over 700 °C. Animal studies have shown that laser can potentially lead to perforation and destruction of the vein walls, causing significantly more bruising and post-procedure pain for patients.^{2,3}

The 2009 RECOVERY Study compared the experience of patients treated with the Venefit procedure and those treated with 980 nm laser ablation. The findings clearly demonstrated that:

- The Venefit™ procedure resulted in less pain, less bruising and fewer complications.¹
 - The Venefit™ procedure proved to be up to four times faster in improving patients' quality of life.¹
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- Is the Venefit™ procedure painful?
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Most patients report feeling little, if any, pain during the Venefit™ procedure. Your physician will give you a local or regional anesthetic to numb the treatment area.

- Does it require anesthesia?
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The Venefit procedure can be performed under local, regional, or general anesthesia. It is generally performed using local anesthesia in a vein specialist's office or an outpatient surgical facility.

- How quickly after treatment can I return to normal activities?
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Many patients experience a quicker return to normal activities⁴. For a few weeks following the treatment, your vein specialist may recommend a regular walking regimen and suggest you refrain from very strenuous activities (heavy lifting, for example) or prolonged periods of standing.

- How soon after treatment will my symptoms improve?
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Most patients report a noticeable improvement in their symptoms within one to two weeks following the procedure.

- Is there any scarring, bruising or swelling after the Venefit™ procedure?
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Most patients report minimal to no scarring, bruising or swelling following the Venefit™ procedure.¹

- What potential risks and complications are associated with the Venefit™ procedure?
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As with any medical intervention, potential risks and complications exist with the Venefit procedure. All patients should consult their vein specialist to determine if their conditions present any special risks. Your vein specialist will review potential complications of the Venefit™ procedure at the consultation, which can

include vessel perforation, thrombosis, pulmonary embolism, phlebitis, hematoma, infection, paresthesia (numbness or tingling) and/or skin burn.

- Is the Venefit™ procedure suitable for everyone?
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Only a vein specialist can tell you if the Venefit™ procedure is the right option for your vein problem. Experience has shown that many patients with CVI can be treated with the Venefit™ procedure.

- Is age an important consideration for the Venefit™ procedure?
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The most important step in determining whether or not the Venefit™ procedure is appropriate for you is a complete ultrasound examination by your vein specialist. Age alone is not a factor in determining whether or not the Venefit™ procedure is appropriate for you. The Venefit™ procedure has been used to treat both women and men across a wide range of ages.

- How effective is the Venefit™ procedure?
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The Venefit™ procedure has been shown in a large international, multicenter study to be 93% effective over three years.⁵

- What happens to the treated vein left behind in the leg?

The vein simply becomes fibrous tissue after treatment. Over time, the vein will gradually be completely absorbed into surrounding tissue.

1. Almeida JJ, Kaufman J, Göckeritz O, et al. Radiofrequency endovenous ClosureFast versus laser ablation for the treatment of great saphenous reflux: a multicenter, single-blinded, randomized study (RECOVERY Study). *J Vasc Interv Radiol.* 2009;20:752-759.
2. Dietzek A. Current data on radiofrequency ablation with the ClosureFast catheter. Presented at the 37th Annual Veith Symposium; November 17, 2010; New York.
3. Weiss RA, Controlled radiofrequency endovenous occlusion using a unique radiofrequency catheter under duplex guidance to eliminate saphenous varicose vein reflux: A 2-year follow-up. *Dermatol Surg* 2002;28:38-42.
4. L. H. Rasmussen, M. Lawaetz, L. Bjoern, B. Vennits, A. Blemings and B. Eklof, Randomized Clinical Trial Comparing Endovenous Laser Ablation, Radiofrequency Ablation, Foam Sclerotherapy and Surgical Stripping for Great Saphenous Varicose Veins. *British Journal of Surgery Society Ltd., Wiley Online Library, www.bjs.co.uk, March 15, 2011.*
5. Proebstle T, et al. Three-year European follow-up of endovenous radiofrequency-powered segmental thermal ablation of the great saphenous vein with or without treatment of calf varicosities. *JVS*; July 2011