

# Medical Coverage Policy



## Varicose Vein Treatments

Device/Equipment    Drug    Medical    Surgery    Test    Other

Effective Date:	9/2/2001	Policy Last Updated:	5/7/2013
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**Prospective review is recommended/required. Please check the member agreement for preauthorization guidelines.**

**Prospective review is not required.**

### Description:

Varicose veins are large, superficial veins that have become swollen. These veins can be found anywhere in the body but are most common in the lower extremities. The varicosities are often caused by incompetence of the valvular system within the vein, from intrinsic weakness of the vein wall, from high intraluminal pressure, and rarely, from arteriovenous fistulas. In severe cases, these varicose veins may cause severe pain and swelling of an extremity, as well as stasis changes such as dermatitis and ulceration.

Primary varicose veins originate in the superficial system (comprised of the greater and lesser saphenous veins) and occur two to three times more frequently in women than in men. Secondary varicose veins result from deep venous insufficiency and incompetent subfacial perforator veins or deep venous occlusion causing enlargement of superficial veins serving as collaterals.

Chronic venous insufficiency can be connected to varicose veins or it could not. Chronic venous insufficiency is related to incompetence of 1 or more branches of the peripheral venous system, i.e., of the deep or superficial system, or the perforators that connect the two. Untreated venous insufficiency in the deep or superficial system causes a progressive set of symptoms involving pain, swelling, skin changes, and eventual tissue breakdown. Controversy remains among vascular surgeons regarding the role of perforator incompetence in the medical and surgical treatment of chronic venous insufficiency. In general, there is an incomplete understanding of how the hemodynamics of one venous system (i.e., superficial, perforator, deep) may affect the hemodynamics of the other. Because of this and other factors, there is inadequate evidence to permit scientific conclusions about the efficacy of subfascial endoscopic perforator surgery (SEPS).

Telangiectasis (spider veins, spider bursts, web veins, thread veins, dilated venules) are permanently dilated blood vessels that create fine, red lesions or lines with radiating limbs on the skin. They are usually limited to the dermis and are often the result of hormonal effects on

the soft skin appearing during the menarche, pregnancy, menopause or at other times of hormonal disturbance. They rarely have any physical symptoms but may present a cosmetic concern.

Pelvic congestion syndrome is a condition of chronic pelvic pain of variable location and intensity, which is associated with dyspareunia and postcoital pain and aggravated by standing. The syndrome occurs during the reproductive years, and pain is often greater before or during menses. The underlying etiology is thought to be related to varices of the ovarian veins, leading to pelvic congestion. As there are many etiologies of chronic pelvic pain, the pelvic congestion syndrome is often a diagnosis of exclusion, with the identification of varices using a variety of imaging methods, such as magnetic resonance imaging (MRI), computed tomography (CT) scanning, or contrast venography. For those who fail medical therapy with analgesics, surgical ligation of the ovarian vein has been considered. More recently, embolization therapy of the ovarian and internal iliac veins has been proposed. Vein embolization can be performed using a variety of materials including coils, glue, and gel foam. The available literature regarding embolization therapy for the treatment of pelvic congestion syndrome is inadequate to draw clinical conclusions; thus this treatment is considered not medically necessary.

#### Types of Treatment

**Vein ligation and stripping:** Veins are tied shut (ligation) and removed (stripping) through small incisions. The procedure is typically used in severe cases in which varicose veins cause pain or skin ulcers. It is normally performed under general anesthesia.

**Radiofrequency Ablation (RFA):** Also known as VNUS® Closure®, is intended for the endovascular coagulation of blood vessels in patients with superficial vein reflux. This procedure uses endovenous electrodes to deliver radiofrequency energy that heats the vessel wall, causing it to shrink and occlude. It is offered as an alternative to vein ligation or stripping to treat saphenous venous reflux.

**Laser Ablation:** Also known as endovenous laser therapy (EVLT®) uses an energy source (either laser or radiowave) which is designed to damage the intimal wall of the vessel, resulting in fibrosis and ultimately obliteration of a long segment of the vein. One commonly used system is the Diomed 810-nm laser.

**Endovenous Mechanochemical Ablation:** Endovenous mechanochemical ablation utilizes both sclerotherapy and mechanical damage to the lumen. Following ultrasound imaging, a disposable catheter with a motor drive is inserted into the distal end of the target vein and advanced to the saphenofemoral junction. As the catheter is pulled back, a wire rotates at 3,500 rpm within the lumen of the vein, abrading the lumen. At the same time, a liquid sclerosant (sodium tetradecyl sulphate) is infused near the rotating wire. It is proposed that mechanical ablation allows for better efficacy of the sclerosant, without the need for the tumescent anesthesia used in radiofrequency (RF) ablation or endovenous laser ablation (EVLT). Controlled studies with longer follow-up are needed to determine the long-term efficacy of these treatments with greater certainty. For sclerotherapy, there is high variability in success

rates of the procedure and reports of serious adverse events. There is insufficient evidence to permit conclusions regarding the efficacy and safety of mechanochemical ablation.

**Laser treatment:** A light beam is pulsed externally onto the veins causing scar tissue to form thereby closing the vein and making it eventually disappear. The procedure is generally used to treat smaller veins and may be combined with sclerotherapy. Multiple treatments are usually required.

**Sclerotherapy:** Involves injecting a sclerosing solution (foam) into the blood vessel, which then collapses the vessel. The method is commonly used on small- to medium- sized veins but it can also be used in the treatment of varicose tributaries without prior ligation, with or without vein stripping.

Typically this can be completed in 3 sessions over a 12 month period. The use of ultrasound guidance performed in conjunction with the injection of sclerosing solution into the varicose tributaries, would be considered incidental to the primary injection procedure, and not separately reimbursable.

**Echosclerotherapy:** Also known as ultrasound-guided sclerotherapy, is a procedure using ultrasonic needle guidance and visualization of the refluxing perforator vein(s) greater than 3.5 mm in size during an injection with a sclerosing agent.

**Transilluminated Powered Phlebectomy:** Transilluminated powered phlebectomy is when an endoscopic transilluminator is inserted underneath the skin, illuminating the vein clusters that need to be resected. The varicosities are cut and removed by suction. Once removal of the veins is complete, a second stage anaesthetic is then injected to minimize bruising, pain, and hematoma formation. The TriVex<sup>®</sup> system is generally used for the transilluminated powered phlebectomy.

**Ambulatory phlebectomy:** Also called microphlebectomy, is when small varicose veins are removed through small incisions made in the skin. Often the procedure is performed in an office setting with local anesthesia. Generally, sutures are not needed.

**Subfascial endoscopic perforator surgery (SEPS):** Is a minimally invasive endoscopic procedure that is designed to interrupt incompetent subfascial perforator veins. Guided by Duplex ultrasound scanning, small incisions are made in the skin unaffected by the changes of severe chronic venous insufficiency. The perforating veins are clipped or divided by endoscopic scissors. The operation can be performed as an outpatient procedure.

**Medical Criteria :**

Medical treatment of varicose veins of the lower extremities is considered medically necessary when the medical criteria below are met:

The patient must meet one of the listed criteria below:

- Varicosities causing pain or functional impairment, such as complications of venous stasis as in duration dermatitis or superficial ulceration not satisfactorily relieved by a trial of conservative medical management (e.g., rest with elevation, analgesics, compression hose) of one month duration, and there is reflux incompetency of greater saphenous vein and/or lesser saphenous and/or accessory saphenous vein (with the exception of all forms of sclerotherapy which requires a competent greater saphenous and/or lesser saphenous and/or accessory saphenous vein)
- Superficial thrombophlebitis of greater saphenous vein and/or lesser saphenous and/or accessory saphenous vein
- Hemorrhaging from a ruptured varix

In addition to meeting the above treatment criteria, the patient must meet the following criteria for the methods of treatment specified below:

#### Ligation and Stripping

- If the greater saphenous and/or lesser saphenous and/or accessory saphenous vein is incompetent

#### Endovenous radiofrequency or laser ablation

- If the greater saphenous vein and/or lesser saphenous and/or accessory saphenous vein is incompetent. See Surgical ligation procedure below including SEPS, for treatment of perforator veins.

#### Sclerotherapy

- The veins must be >2 mm and <6 mm since veins greater than 6 mm in diameter are more successfully treated with surgery; and
- If the greater saphenous and/or lesser saphenous and/or accessory saphenous vein is competent; or
- If the greater saphenous and/or lesser saphenous and/or accessory saphenous vein has been removed or ablated.
- Sclerotherapy services for 3 sessions over a 12 month period will be required/recommended for preauthorization. Requests for additional sclerotherapy services will be reviewed to support the need for additional treatment.

#### Echosclerotherapy

- Limited to the perforator veins greater than 3.5 mm in size; and
- If the greater saphenous and/or lesser saphenous and/or accessory saphenous vein is competent; or
- If the greater saphenous and/or lesser saphenous and/or accessory saphenous vein has been removed or ablated.

#### Transilluminated powered phlebectomy and ambulatory phlebectomy

- If the greater saphenous and/or lesser saphenous and/or accessory saphenous vein is competent; or
- If the greater saphenous and/or lesser saphenous and/or accessory saphenous vein has been removed or ablated.

#### Surgical ligation (including subfascial endoscopic perforator surgery [SEPS]), or endovenous radiofrequency, or laser ablation of incompetent perforator veins

- There is demonstrated perforator reflux; and
- Must be associated with chronic venous insufficiency when the following conditions have been met: and previously eliminated;
- The superficial saphenous veins (greater, lesser, or accessory saphenous and symptomatic varicose tributaries), have been eliminated
- leg ulcers have not resolved following combined superficial vein treatment and compression therapy for at least 3 months; and
- The venous insufficiency is not secondary to deep venous thromboembolism.

Note: Cluster veins may be treated at the time of any of the primary procedures without a separate review.

#### Policy:

Preauthorization is required for Blue CHiP for Medicare and recommended for all other BCBSRI products for treatment of varicose veins of the lower extremities.

#### All BCBSRI Products:

Treatment of symptomatic varicose veins is considered medically necessary when the medical criteria listed above are met for both treatment and the method.

Mechanochemical ablation of any vein is considered not medically necessary as there is insufficient peer reviewed scientific literature that demonstrates that the procedure/service is effective.

Embolization of the ovarian vein and internal iliac veins for the treatment of pelvic congestion, is considered not medically necessary as there is insufficient peer reviewed scientific literature that demonstrates that the procedure/service is effective.

#### BC for Medicare

Sclerotherapy when used in the treatment of telangiectasias is considered a cosmetic procedure and is not performed to correct a functional impairment. Medicare does not cover cosmetic procedures.

Commercial Products:

Sclerotherapy when used in the treatment of telangiectasias is a contract exclusion as it is always considered to be a cosmetic procedure.

Coverage:

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage, Subscriber Agreement for the applicable surgery services benefits/coverage.

Coding and Reimbursement:

The following CPT Codes are medically necessary when medical criteria are met:

36470  
36471  
36475  
36476  
36478  
36479  
37500  
37700  
37718  
37722  
37735  
37760  
37761  
37765  
37766  
37780  
37785  
S2202

Note: The use of ultrasound guidance performed in conjunction with the injection of sclerosing solution into the varicose tributaries, would be considered incidental to the primary injection procedure and is not separately reimbursed.

The following CPT code is non-covered for all product lines:

36468

The following unlisted CPT code should be used for endovenous mechanochemical ablation as there is no specific CPT code for the procedure. Providers should file with the unlisted code below:

37501

The following nonspecific CPT codes are not medically necessary when used for embolization of the ovarian vein and internal iliac veins for the treatment of pelvic congestion:

36012

37204

The CPT codes above, when filed with ICD9 code, 625.5, are considered not medically necessary

The following CPT codes should not be used for varicose vein surgery:

37202

37204

ICD10:

N94.89

Also known as:

ClariVein®

EVLA

EVLT

VNUS

SEPS

Laser treatment of varicose veins

Sclerotherapy

Varicose vein surgery

Venous closure

Related Topics:

None

Published:

Provider Update, June 2013

Provider Update, March 2013

Provider Update, March 2012

Provider Update, November 2010

Provider Update, August 2009

Provider Update, November 2007

Provider Update, September 2006

Policy Update, September 2001

References:

Blue Cross Association. Medical Policy Reference Manual: 7.01.124 Treatment of Varicose Veins/Venous Insufficiency.

[http://bluwebportal.bcbs.com/medical\\_management/attachments/OCAMedicalPolicy/OCA\\_mp\\_draft\\_vein\\_03142013.pdf](http://bluwebportal.bcbs.com/medical_management/attachments/OCAMedicalPolicy/OCA_mp_draft_vein_03142013.pdf)

[http://bluewebportal.bcbs.com/global\\_assets/special\\_content/medical\\_policy/policymanual/policy.html?pnum=40118](http://bluewebportal.bcbs.com/global_assets/special_content/medical_policy/policymanual/policy.html?pnum=40118)

Centers for Medicare and Medicaid (CMS) Local Coverage Determination (LCD) for Treatment of VARICOSE VEINS of the Lower Extremities (L30143). Accessed 2/26/2013

Transilluminated Powered Phlebectomy for varicose veins; National Institute for Health and Clinical Excellence: 2004 retrieved on 5/15/07 from <http://guidance.nice.org.uk/IPG37>

Aremu MA, et al. Prospective randomized controlled trial: conventional versus powered phlebectomy. *J Vasc Surgery*;Jan 2004;39(1):88-94.

Chang-Keun O, et al. Endovenous Laser Surgery of the Incompetent Greater Saphenous Vein with a 980-nm Diode Laser. *Dermat Surg*;2003;29:1135-1140.

Shamiyeh A, et al. Transilluminated Powered Phlebectomy: Advantages and Disadvantages of a New Technique. *Dermatol Surg*;2003;29:616-619.

Baron, H.C., et al: from *Journal of Surgical Endoscopy*: Vol 19, Number 1; January 2005. 126-129. Treatment of severe chronic venous insufficiency using the subfascial endoscopic perforator vein procedure. Abstract retrieved 1/31/08 from <http://www.springerlink.com/content/221n825q7cyu3beq>

Puggioni, A, Kalra M, Gloviczki P. *Seminar Vascular Surgery*. 2005 Mar; 18 (1): 41-8. Superficial vein surgery and SEPS for chronic venous insufficiency. Abstract retrieved 1/31/2008 from <http://www.ncbi.nlm.nih.gov/pubmed/15791553>

Casian D. Gutu E, Moroz S. *Chirurgia (Bucur)*. 2007 Jul-Aug ; 102(4): 415-9. Initial experience of subfascial endoscopic perforator vein surgery in patients with severe chronic venous insufficiency.

<http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&uid=17966938&cmd=showdetailview&indexed=google>

Sato D, et al. *Journal of Endovascular Surgery*: Vol. 6, No. 2, pp. 147–154. Subfascial Perforator Vein Ablation: Comparison of Open Versus Endoscopic Techniques. Retrieved 2/21/2008 from [http://enth.allenpress.com/enthonline/?request=get-document&doi=10.1583%2F1074-6218\(1999\)006%3C0147:SPVACO%3E2.0.CO%3B2](http://enth.allenpress.com/enthonline/?request=get-document&doi=10.1583%2F1074-6218(1999)006%3C0147:SPVACO%3E2.0.CO%3B2)

Nelzén O. *British Journal of Surgery*. Volume 87 Issue 1 Page 86-91, January 2000. Prospective study of safety, patient satisfaction and leg ulcer healing following saphenous and subfascial endoscopic perforator surgery. Retrieved 2/21/2008 from <http://www.blackwell-synergy.com/doi/abs/10.1046/j.1365-2168.2000.01305.x>



National Institute for Health and Clinical Excellence. IPG435 Endovenous mechanochemical ablation for varicose veins: guidance. 2013. Available online at: <http://www.nice.org.uk/nicemedia/live/13702/62452/62452.pdf>. Last accessed 2013, February

1. Maleux G, Stockx L, Wilms G et al. Ovarian vein embolization for the treatment of pelvic congestion syndrome: long-term technical and clinical results. *J Vasc Interv Radiol* 2000; 11(7):859-64. 2. Venbrux AC, Chang AH, Kim HS et al. Pelvic congestion syndrome (pelvic venous incompetence): impact of ovarian and internal iliac vein embolotherapy on menstrual cycle and chronic pelvic pain. *J Vasc Interv Radiol* 2002; 13(2 pt 1):171-8.