

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>TREATMENT OF VARICOSE VEINS/VENOUS INSUFFICIENCY</b>
<b>POLICY NUMBER</b>	<b>MP- 1.061</b>

<b>Effective Date:</b>	<b>1/1/2024</b>
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### I. POLICY

#### Great or Small Saphenous Veins

Treatment of the great or small saphenous veins by surgery (ligation and stripping), endovenous thermal ablation (radiofrequency or laser ablation), microfoam sclerotherapy or cyanoacrylate adhesive may be considered **medically necessary** for symptomatic varicose veins/venous insufficiency when the following criteria have been met:

- There is demonstrated saphenous reflux and CEAP [Clinical, Etiology, Anatomy, Pathophysiology] class C2 or greater (see policy guidelines); **AND**
- Conservative management (e.g., compression therapy, leg elevation, physical activity as tolerated, weight loss) for at least 3 months that has not improved the symptoms; **AND**
- Recurrent or residual venous reflux greater than or equal to 500 milliseconds by duplex ultrasound; **AND**
- Vein size is 4.5 mm or greater in diameter measured by duplex ultrasound below saphenofemoral or saphenopopliteal junction; **AND**
- There is documentation of one or more of the following indications:
  - Ulceration secondary to venous stasis; **OR**
  - Initial superficial thrombophlebitis that has failed the following treatment:
    - NSAIDs or acetaminophen for greater than or equal to 3 weeks; **OR**
    - Low molecular weight heparin (LMWH) or fondaparinux greater than or equal to 6 weeks treatment
  - Recurrent superficial thrombophlebitis that has failed conservative management; **OR**
  - Hemorrhage or recurrent bleeding episodes from a ruptured superficial varicosity requiring medical or surgical intervention; **OR**
  - Persistent pain, swelling, itching, burning, redness or other symptoms that are associated with saphenous reflux with the symptoms significantly interfering with activities of daily living

Treatment of great or small saphenous veins by surgery, endovenous radiofrequency or laser ablation, microfoam sclerotherapy or cyanoacrylate adhesive that does not meet the criteria described above is considered **not medically necessary**.

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### Accessory Saphenous Veins

Treatment of accessory saphenous veins by surgery (ligation and stripping), endovenous thermal ablation (radiofrequency or laser ablation), microfoam sclerotherapy or cyanoacrylate adhesive may be considered **medically necessary** for symptomatic varicose veins/venous insufficiency when the following criteria have been met:

- There is demonstrated saphenous reflux and CEAP class C2 or greater (see policy guidelines); **AND**
- Incompetence of the accessory saphenous vein is isolated, **OR** the great or small saphenous veins had been previously eliminated (at least 3 months); **AND**
- Recurrent or residual venous reflux greater than or equal to 500 milliseconds by duplex ultrasound; **AND**
- Vein size is 4.0 mm or greater in diameter measured by duplex ultrasound; **AND**
- Conservative management (e.g., compression therapy, leg elevation, physical activity as tolerated, weight loss) for at least 3 months that has not improved the symptoms; **AND**
- There is documentation of one or more of the following indications:
  - Ulceration secondary to venous stasis; **OR**
  - Recurrent superficial thrombophlebitis that has failed conservative management; **OR**
  - Hemorrhage or recurrent bleeding episodes from a ruptured superficial varicosity requiring medical or surgical intervention; **OR**
  - Persistent pain, swelling, itching, burning, or other symptoms that are associated with saphenous reflux with the symptoms significantly interfering with activities of daily living.

Treatment of accessory saphenous veins by surgery, endovenous radiofrequency or laser ablation, microfoam sclerotherapy or cyanoacrylate adhesive that do not meet the criteria described above is considered **not medically necessary**.

### Symptomatic Varicose Tributaries

Stab avulsion, Hook phlebectomy, Sclerotherapy and Transilluminated powered phlebectomy may be considered **medically necessary** as a component of the treatment of symptomatic varicose tributaries when performed either at the same time or following prior treatment (surgical, radiofrequency, or laser) of the saphenous veins when the following criteria are met:

- there is documentation of persistent pain, swelling, itching, burning, or other symptoms associated with the condition, **AND**
- the symptoms significantly interfere with activities of daily living, **AND**
- conservative management including compression therapy for at least 3 months has not improved the symptoms

Treatment of symptomatic varicose tributaries using any other techniques than noted above is considered **investigational**. There is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with this procedure for these indications.

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### Perforator Veins

Surgical ligation (including subfascial endoscopic perforator surgery), endovenous radiofrequency or laser ablation, or ultrasound-guided sclerotherapy (echosclerotherapy), of incompetent perforator veins may be considered **medically necessary** as a treatment of leg ulcers associated with chronic venous insufficiency when the following conditions have been met:

- There is demonstrated perforator reflux and CEAP class C2 or greater (see policy guidelines); **AND**
- There is demonstrated perforator reflux greater than or equal to 500 milliseconds by duplex ultrasound; **AND**
- Vein size is 3.5 mm or greater in diameter measured by duplex ultrasound The superficial saphenous veins (great, small, or accessory saphenous and symptomatic varicose tributaries) have been previously eliminated; **AND**
- 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.

Recurrent or residual venous reflux ligation or ablation of incompetent perforator veins performed concurrently with superficial venous surgery is **not medically necessary**.

### Telangiectasia

Treatment of telangiectasia such as spider veins, angiomata, and hemangiomata is considered **not medically necessary**.

### Other

Techniques for conditions not specifically listed above are **investigational**, including, but not limited to:

- Sclerotherapy techniques, other than microfoam sclerotherapy, of great, small, or accessory saphenous veins
- Sclerotherapy of isolated tributary veins without prior or concurrent treatment of saphenous veins
- Stab avulsion, hook phlebectomy, or transilluminated powered phlebectomy of perforator, great or small saphenous or accessory saphenous veins
- Endovenous radiofrequency or laser ablation of tributary veins
- Endovenous cryoablation of any vein
- Mechanochemical ablation of any vein (e.g., ClariVein and similar systems).

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There is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with the above procedures for these indications.

### Policy guidelines

The standard classification of venous disease is the CEAP (Clinical, Etiologic, Anatomic, Pathophysiologic) classification system. The following is the Clinical portion of the CEAP:

<b>Class</b>	<b>Definition</b>
C <sub>0</sub>	No visible or palpable signs of venous disease
C <sub>1</sub>	Telangiectasies or reticular veins
C <sub>2</sub>	Varicose veins
C <sub>2r</sub>	Recurrent varicose veins
C <sub>3</sub>	Edema
C <sub>4</sub>	Changes in skin and subcutaneous tissue secondary to CVD
C <sub>4a</sub>	Pigmentation and eczema
C <sub>4b</sub>	Lipodermatosclerosis or atrophie blanche
C <sub>4c</sub>	Corona phlebectatica
C <sub>5</sub>	Healed venous ulcer
C <sub>6</sub>	Active venous ulcer
C <sub>6r</sub>	Recurrent active venous ulcer
S	Symptomatic
A	Asymptomatic

Adapted from: [https://www.jvsvenous.org/article/S2213-333X\(20\)30063-9/pdf](https://www.jvsvenous.org/article/S2213-333X(20)30063-9/pdf)

CVD, Chronic venous disease. Each clinical class subcharacterized by a subscript indicating the presence (symptomatic, s) or absence (asymptomatic, a) of symptoms attributable to venous disease.

CEAP: Clinical, Etiologic, Anatomic, Pathophysiologic classification system.

Evaluation of reflux with duplex ultrasound should be performed with the individual in the upright or standing position with the lower extremity in the dependent position when possible.

It should be noted that the bulk of the literature discussing the role of ultrasound guidance refers to sclerotherapy of the saphenous vein, as opposed to the varicose tributaries. When ultrasound guidance is used to guide sclerotherapy of the varicose tributaries, it would be considered either not medically necessary or incidental to the injection procedure.

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### II. PRODUCT VARIATIONS

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This policy is only applicable to certain programs and products administered by Capital BlueCross and subject to benefit variations as discussed in Section VI. Please see additional information below.

**FEP PPO:** Refer to FEP Medical Policy Manual. The FEP Medical Policy manual can be found at:

<https://www.fepblue.org/benefit-plans/medical-policies-and-utilization-management-guidelines/medical-policies>

### III. DESCRIPTION/BACKGROUND

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A variety of treatment modalities are available to treat varicose veins/venous insufficiency, including surgery, thermal ablation, sclerotherapy, mechanochemical ablation (MOCA), cyanoacrylate adhesive (CAC), and cryotherapy. The application of each modality is influenced by the severity of the symptoms, type of vein, source of venous reflux, and the use of other (prior or concurrent) treatment.

#### **Venous Reflux/Venous Insufficiency**

The venous system of the lower extremities consists of the superficial veins (this includes the great and small saphenous and accessory, or duplicate, veins that travel in parallel with the great and small saphenous veins), the deep system (popliteal and femoral veins), and perforator veins that cross through the fascia and connect the deep and superficial systems. One-way valves are present within all veins to direct the return of blood up the lower limb. Because the venous pressure in the deep system is generally greater than that of the superficial system, valve incompetence at any level may lead to backflow (venous reflux) with pooling of blood in superficial veins. Varicose veins with visible varicosities may be the only sign of venous reflux, although itching, heaviness, tension, and pain may also occur. Chronic venous insufficiency secondary to venous reflux can lead to thrombophlebitis, leg ulcerations, and hemorrhage. The CEAP classification of venous disease considers the clinical, etiologic, anatomic, and pathologic characteristics of venous insufficiency, ranging from class 0 (no visible sign of disease) to class 6 (active ulceration).

#### **Treatment of Saphenous Veins and Tributaries**

Saphenous veins include the great and small saphenous and accessory saphenous veins that travel in parallel with the great or small saphenous veins. Tributaries are veins that empty into a larger vein. Treatment of venous reflux has traditionally included the following:

- Identification by preoperative Doppler ultrasonography of the valvular incompetence
- Control of the most proximal point of reflux, traditionally by suture ligation of the incompetent saphenofemoral or saphenopopliteal junction
- Removal of the superficial vein from circulation, e.g., by stripping of the great and/or small saphenous veins.

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- Removal of varicose tributaries (at the time of the initial treatment or subsequently) by stab avulsion (phlebectomy) or injection sclerotherapy.

Minimally invasive alternatives to ligation and stripping have been investigated. They include forms of sclerotherapy, cyanocrylate adhesive, and thermal ablation using cryotherapy, high-frequency radio waves (200-300 kHz), or laser energy.

### **Thermal Ablation**

Radiofrequency ablation (RFA) is performed by using a specially designed catheter inserted through a small incision in the distal medial thigh to within 1 to 2 cm of the saphenofemoral junction. The catheter is slowly withdrawn, closing the vein. Laser ablation is performed similarly. A laser fiber is introduced into the great saphenous vein under ultrasound guidance. The laser is then activated and slowly removed, along the course of the saphenous vein. Cryoablation uses extreme cold. The objective of endovenous techniques is to injure the vessel, causing retraction and subsequent fibrotic occlusion of the vein. Technical developments since thermal ablation procedures were initially introduced include the use of perivenous tumescent anesthesia, which allows successful treatment of veins larger than 12 mm in diameter and helps to protect adjacent tissue from thermal damage during treatment of the small saphenous vein.

### **Sclerotherapy**

The objective of sclerotherapy is to destroy the endothelium of the target vessel by injecting an irritant solution (either a detergent, osmotic solution, or chemical irritant), ultimately occluding the vessel. Treatment success depends on accurate injection of the vessel, an adequate injectate volume and concentration of sclerosant, and compression. Historically, larger veins and very tortuous veins were not considered good candidates for sclerotherapy due to technical limitations. Technical improvements in sclerotherapy have included the routine use of Duplex ultrasound to target refluxing vessels, luminal compression of the vein with anesthetics, and a foam/sclerosant injectate in place of liquid sclerosant. Foam sclerosants are produced by forcibly mixing a gas (e.g., air or carbon dioxide) with a liquid sclerosant (e.g., polidocanol or sodium tetradecyl sulfate). Physician-compounded foam is produced at the time of treatment. A commercially available microfoam sclerosant with a proprietary gas mix is available that is proposed to provide smaller and more consistent bubble size than what is produced with physician-compounded sclerosant foam.

### **Endovenous Mechanochemical Ablation**

Endovenous mechanochemical ablation uses 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 3500 rpm within the lumen of the vein, abrading the lumen. At the same time, a liquid sclerosant (sodium tetradecyl sulfate) is infused near the rotating wire. It is proposed that mechanical ablation allows for better efficacy of the sclerosant, and results in less pain and risk of nerve injury without need for the tumescent anesthesia used with endovenous thermal ablation techniques (radiofrequency ablation, endovenous laser ablation).

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### **Cyanoacrylate Adhesive**

Cyanoacrylate adhesive is a clear, free-flowing liquid that polymerizes in the vessel via an anionic mechanism (i.e., polymerizes into a solid material on contact with body fluids or tissue). The adhesive is gradually injected along the length of the vein in conjunction with ultrasound and manual compression. The acute coaptation halts blood flow through the vein until the implanted adhesive becomes fibrotically encapsulated and establishes chronic occlusion of the treated vein. Cyanoacrylate glue has been used as a surgical adhesive and sealant for a variety of indications, including gastrointestinal bleeding, embolization of brain arteriovenous malformations, and surgical incisions or other skin wounds.

### **Transilluminated Powered Phlebectomy**

Transilluminated powered phlebectomy (TIPP) is an alternative to stab avulsion and hook phlebectomy. This procedure uses two instruments: an illuminator, which also provides irrigation, and a resector, which has an oscillating tip and suction pump. Following removal of the saphenous vein, the illuminator is introduced via a small incision in the skin and tumescence solution (anesthetic and epinephrine) is infiltrated along the course of the varicosity. The resector is then inserted under the skin from the opposite direction, and the oscillating tip is placed directly beneath the illuminated veins to fragment and loosen the veins from the supporting tissue. Irrigation from the illuminator is used to clear the vein fragments and blood through aspiration and additional drainage holes. The illuminator and resector tips may then be repositioned, thereby reducing the number of incisions needed when compared with stab avulsion or hook phlebectomy. It has been proposed that TIPP might decrease surgical time, decrease complications such as bruising, and lead to faster recovery than established procedures.

### **REGULATORY STATUS**

In 2015, the VenaSeal® Closure System (Sapheon, part of Medtronic) was approved by the U.S. Food and Drug Administration (FDA) through the premarket approval (PMA P140018) process for the permanent closure of clinically significant venous reflux through endovascular embolization with coaptation. The VenaSeal® Closure System seals the vein using a cyanoacrylate adhesive agent. FDA product code: PJQ.

In 2013, Varithena® (formerly Varisolve), a sclerosant microfoam made with a proprietary gas mix, was approved by the FDA under a new drug application (NDA 205-098) for the treatment of incompetent great saphenous veins, accessory saphenous veins, and visible varicosities of the great saphenous vein system above and below the knee.

The following devices were cleared for marketing by FDA through the 501(k) process for endovenous treatment of superficial vein reflux:

- In 1999, the VNUS Closure® System, a radiofrequency device, was cleared by the FDA through the 510(k) process for "endovascular coagulation of blood vessels in patients with superficial vein reflux." In 2005, the NUS RFS® and RFS*Flex*® devices were cleared by FDA for "use in vessel and tissue coagulation including treatment of incompetent (i.e., refluxing) perforator and tributary veins." In 2008, the modified VNUS

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ClosureFast® Intravascular Catheter was cleared by FDA through the 510(k) process. FDA product code: GEI.

- In 2002, the Diomed 810 nm surgical laser and EVLT® (endovenous laser therapy) procedure kit was cleared by FDA through the 510(k) process "...for use in the endovascular coagulation of the great saphenous vein of the thigh in patients with superficial vein reflux." FDA product code: GEX.
- In 2005, a modified Erbe Erbokryo cryosurgical unit (Erbe USA) was approved by FDA for marketing through the 510(k) process. A variety of clinical indications are listed, including cryostripping of varicose veins of the lower limbs. FDA product code: GEH.
- In 2003, the Trivex system (InaVein), a device for transilluminated powered phlebectomy, was cleared by FDA through the 510(k) process for "ambulatory phlebectomy procedures for the resection and ablation of varicose veins." FDA product code: DNQ.
- In 2008, the ClariVein® Infusion Catheter (Merit Medical) was cleared by FDA through the 510(k) process (K071468) for mechanochemical ablation. The FDA determined that this device was substantially equivalent to the Trellis Infusion System (K013635) and the Slip-Cath Infusion Catheter (K882796). The system includes an infusion catheter, motor drive, stopcock, and syringe, and is intended for the infusion of physician-specified agents in the peripheral vasculature. FDA product code: KRA.

#### IV. RATIONALE

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##### Summary of Evidence

##### Saphenous Veins

For individuals who have varicose veins/venous insufficiency and saphenous vein reflux who receive endovenous thermal ablation (radiofrequency or laser), the evidence includes randomized controlled trials (RCTs) and systematic reviews of controlled trials. The relevant outcomes are symptoms, change in disease status, morbid events, quality of life, and treatment-related morbidity. There are a number of large RCTs and systematic reviews of RCTs assessing endovenous thermal ablation of the saphenous veins. Comparison with the standard of ligation and stripping at 2- to 5-year follow-up has supported the use of both endovenous laser ablation and radiofrequency ablation (RFA). Evidence has suggested that ligation and stripping lead to more neovascularization, while thermal ablation leads to more recanalization, resulting in similar clinical outcomes for endovenous thermal ablation and surgery. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have varicose veins/venous insufficiency and saphenous vein reflux who receive microfoam sclerotherapy, the evidence includes RCTs and systematic reviews. The relevant outcomes are symptoms, change in disease status, morbid events, quality of life, and treatment-related morbidity. In a Cochrane review, ultrasound-guided foam sclerotherapy was inferior to both ligation and stripping and endovenous laser ablation for technical success up to 5 years and beyond 5 years, but there was no significant difference between treatments for



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recurrence up to 3 years and at 5 years. For physician-compounded sclerotherapy, there is high variability in success rates and some reports of serious adverse events. By comparison, rates of occlusion with the microfoam sclerotherapy (polidocanol 1%) approved by the U.S. Food and Drug Administration (FDA) are similar to those reported for endovenous laser ablation or stripping. Results of a noninferiority trial of physician-compounded sclerotherapy have indicated that once occluded, recurrence rates at two years are similar to those of ligation and stripping. Together, this evidence indicates that the more consistent occlusion with the microfoam sclerotherapy preparation will lead to recurrence rates similar to ligation and stripping in the longer term. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have varicose veins/venous insufficiency and saphenous vein reflux who receive mechanochemical ablation (MOCA), the evidence includes 4 RCTs with 6 months to 2-year results that compared MOCA to thermal ablation and a prospective cohort with follow-up out to 5 years. Relevant outcomes are symptoms, change in disease status, morbid events, quality of life, and treatment-related morbidity. MOCA is a combination of liquid sclerotherapy with mechanical abrasion. A potential advantage of this procedure compared with thermal ablation is that MOCA does not require tumescent anesthesia and may result in less pain during the procedure. Results to date have been mixed regarding a reduction in intraprocedural pain compared to thermal ablation procedures. Occlusion rates at 6 months to 2 years from RCTs indicate lower anatomic success rates compared to thermal ablation, but a difference in clinical outcomes at these early time points has not been observed. Experience with other endoluminal ablation procedures suggests that lower anatomic success in the short term is associated with recanalization and clinical recurrence between 2 to 5 years. The possibility of later clinical recurrence is supported by a prospective cohort study with 5-year follow-up following treatment with MOCA. However, there have been improvements in technique since the cohort study was begun, and clinical progression is frequently observed with venous disease. Because of these limitations, longer follow-up in the more recently conducted RCTs is needed to establish the efficacy and durability of this procedure compared with the criterion standard of thermal ablation. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have varicose veins/venous insufficiency and saphenous vein reflux who receive cyanoacrylate adhesive (CAC), the evidence includes two RCTs and a prospective cohort. The relevant outcomes are symptoms, change in disease status, morbid events, quality of life, and treatment-related morbidity. Evidence includes a multicenter noninferiority trial with follow-up through 36 months, an RCT with follow-up through 24 months, and a prospective cohort with 30-month follow-up. The short-term efficacy of VenaSeal CAC has been shown to be noninferior to RFA at up to 36 months. At 24 and 36 months, the study had greater than 20% loss to follow-up, but loss to follow-up was similar in the two groups at the long-term follow-up and is not expected to influence the comparative results. A second RCT (n=525) with the same active CAC ingredient (N-butyl cyanoacrylate) that is currently available outside of the U.S. found no significant differences in vein closure between CAC and thermal ablation controls at 24-month follow-up. The CAC procedure and return to work were shorter and pain scores were lower compared to thermal ablation, although the subjective pain scores may have been

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influenced by differing expectations in this study. A prospective cohort reported high closure rates at 30 months. Overall, results indicate that outcomes from CAC are at least as good as thermal ablation techniques, the current standard of care. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have varicose veins/venous insufficiency and saphenous vein reflux who receive cryoablation, the evidence includes RCTs. The relevant outcomes are symptoms, change in disease status, morbid events, quality of life, and treatment-related morbidity. Results from a recent RCT of cryoablation have indicated that this therapy is inferior to conventional stripping. Studies showing a benefit on health outcomes are needed. The evidence is insufficient to determine that the technology results in an improvement in the health outcomes.

**Varicose Tributary Veins**

For individuals who have varicose tributary veins who receive ablation (stab avulsion, sclerotherapy, or phlebectomy) of tributary veins, the evidence includes RCTs and systematic reviews of RCTs. The relevant outcomes are symptoms, change in disease status, morbid events, quality of life, and treatment-related morbidity. The literature has shown that sclerotherapy is effective for treating tributary veins following occlusion of the saphenofemoral or saphenopopliteal junction and saphenous veins. No studies have been identified comparing RFA or laser ablation of tributary veins with standard procedures (microphlebectomy and/or sclerotherapy). Transilluminated powered phlebectomy (TIPP) is effective at removing varicosities; outcomes are comparable to available alternatives such as stab avulsion and hook phlebectomy. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

**Perforator Veins**

For individuals who have perforator vein reflux who receive ablation (e.g., subfascial endoscopic perforator surgery) of perforator veins, the evidence includes RCTs, systematic reviews of RCTs and a retrospective study. The relevant outcomes are symptoms, change in disease status, morbid events, quality of life, and treatment-related morbidity. The literature has indicated that the routine ligation or ablation of incompetent perforator veins is not necessary for the treatment of varicose veins/venous insufficiency at the time of superficial vein procedures. However, when combined superficial vein procedures and compression therapy have failed to improve symptoms (i.e., ulcers), treatment of perforator vein reflux may be as beneficial as an alternative (e.g., deep vein valve replacement). Comparative studies are needed to determine the most effective method of ligating or ablating incompetent perforator veins. Subfascial endoscopic perforator surgery is possibly as effective as the Linton procedure with a reduction in adverse events. Endovenous ablation with specialized laser or radiofrequency probes has been shown to effectively ablate incompetent perforator veins with a potential decrease in morbidity compared with surgical interventions. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

**V. DEFINITIONS**

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**ABLATION** is the removal of a part, pathway, or function by surgery, chemical destruction, electrocautery, or radiofrequency.

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**BASIC ACTIVITIES OF DAILY LIVING-** Include and are limited to walking in the home, eating, bathing, dressing, and homemaking.

**CHRONIC VENOUS INSUFFICIENCY** refers to a collection of venous disorders that includes reflux disease and obstructive physiology. Symptoms include pain, edema, and skin irritation. Physical exam reveals ankle edema, subcutaneous fibrosis, hyperpigmentation, lipodermatosclerosis, eczema and dilation of subcutaneous veins and ulcers

**COSMETIC SURGERY** is an elective procedure performed primarily to restore a person's appearance by surgically altering a physical characteristic that does not prohibit normal function, but is considered unpleasant or unsightly.

**ENDOLUMINAL** means within the lumen of a tubular structure, such as a blood vessel.

**ENDOSCOPIC** refers to a medical procedure that uses a device with a light attached to look at the inside of a body cavity or organ.

**FASCIA** is the fibrous connective tissue of the body that can be separated from other specifically organized structures, such as tendons and ligaments.

**MICROVASCULAR** pertains to the portion of the circulatory system that is composed of the capillary network.

**NECROTIZING** refers to causing the death of tissues or organisms.

**SUBFASCIAL** means beneath a fascia.

**TELANGIECTASIA** is a vascular lesion formed by dilation of a group of small blood vessels

### VI. BENEFIT VARIATIONS

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The existence of this medical policy does not mean that this service is a covered benefit under the member's health benefit plan. Benefit determinations should be based in all cases on the applicable health benefit plan language. Medical policies do not constitute a description of benefits. A member's health benefit plan governs which services are covered, which are excluded, which are subject to benefit limits, and which require preauthorization. There are different benefit plan designs in each product administered by Capital Blue Cross. Members and providers should consult the member's health benefit plan for information or contact Capital Blue Cross for benefit information.

### VII. DISCLAIMER

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*Capital Blue Cross's medical policies are developed to assist in administering a member's benefits, do not constitute medical advice and are subject to change. Treating providers are solely responsible for medical advice and treatment of members. Members should discuss any medical policy related to their coverage or condition with their provider and consult their benefit information to determine if the service is covered. If there is a discrepancy between this medical policy and a member's benefit information, the benefit information will govern. If a provider or a member has a question concerning the application of this medical policy to a specific member's plan of benefits, please contact Capital Blue Cross' Provider Services or Member Services.*

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Capital Blue Cross considers the information contained in this medical policy to be proprietary and it may only be disseminated as permitted by law.

### VIII. CODING INFORMATION

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**Note:** This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

**Treatment of telangiectasia such as spider veins, angiomas, and hemangiomas is considered not medically necessary and therefore not covered:**

Procedure Codes								
36468								

**Techniques for conditions not specifically listed above are investigational (e.g., ClariVein) therefore not covered:**

Procedure Codes								
36473	36474							

**Covered when medically necessary:**

Procedure Codes								
0524T	36465	36466	36470	36471	36475	36476	36478	
36479	36482	36483	37500	37700	37718	37722	37735	
37760	37761	37765	37766	37780	37785	S2202		

ICD-10-CM Diagnosis Codes	Description
I83.011	Varicose veins of right lower extremity with ulcer of thigh
I83.012	Varicose veins of right lower extremity with ulcer of calf
I83.013	Varicose veins of right lower extremity with ulcer of ankle
I83.014	Varicose veins of right lower extremity with ulcer of heel and midfoot
I83.015	Varicose veins of right lower extremity with ulcer other part of foot
I83.018	Varicose veins of right lower extremity with ulcer other part of lower leg
I83.019	Varicose veins of right lower extremity with ulcer of unspecified site
I83.021	Varicose veins of left lower extremity with ulcer of thigh
I83.022	Varicose veins of left lower extremity with ulcer of calf
I83.023	Varicose veins of left lower extremity with ulcer of ankle
I83.024	Varicose veins of left lower extremity with ulcer of heel and midfoot
I83.025	Varicose veins of left lower extremity with ulcer other part of foot
I83.028	Varicose veins of left lower extremity with ulcer other part of lower leg

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<b>ICD-10-CM Diagnosis Codes</b>	<b>Description</b>
I83.029	Varicose veins of left lower extremity with ulcer of unspecified site
I83.11	Varicose veins of right lower extremity with inflammation
I83.12	Varicose veins of left lower extremity with inflammation
I83.211	Varicose veins of right lower extremity with both ulcer of thigh and inflammation
I83.212	Varicose veins of right lower extremity with both ulcer of calf and inflammation
I83.213	Varicose veins of right lower extremity with both ulcer of ankle and inflammation
I83.214	Varicose veins of right lower extremity with both ulcer of heel and midfoot and inflammation
I83.215	Varicose veins of right lower extremity with both ulcer other part of foot and inflammation
I83.218	Varicose veins of right lower extremity with both ulcer of other part of lower extremity and inflammation
I83.219	Varicose veins of right lower extremity with both ulcer of unspecified site and inflammation
I83.221	Varicose veins of left lower extremity with both ulcer of thigh and inflammation
I83.222	Varicose veins of left lower extremity with both ulcer of calf and inflammation
I83.223	Varicose veins of left lower extremity with both ulcer of ankle and inflammation
I83.224	Varicose veins of left lower extremity with both ulcer of heel and midfoot and inflammation
I83.225	Varicose veins of left lower extremity with both ulcer other part of foot and inflammation
I83.228	Varicose veins of left lower extremity with both ulcer of other part of lower extremity and inflammation
I83.229	Varicose veins of left lower extremity with both ulcer of unspecified site and inflammation
I83.811	Varicose veins of right lower extremities with pain
I83.812	Varicose veins of left lower extremities with pain
I83.813	Varicose veins of bilateral lower extremities with pain
I83.891	Varicose veins of right lower extremity with other complications
I83.892	Varicose veins of left lower extremity with other complications
I83.893	Varicose veins of bilateral lower extremities with other complications
I87.2	Venous insufficiency (chronic) (peripheral)

### IX. REFERENCES

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1. O'Meara S, Cullum NA, Nelson EA. Compression for venous leg ulcers. *Cochrane Database Syst Rev.* Jan 21 2009(1):CD000265. PMID 19160178

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2. O'Meara S, Cullum N, Nelson EA, et al. Compression for venous leg ulcers. *Cochrane Database Syst Rev.* Nov 14, 2012;11:CD000265. PMID 23152202
3. Knight Nee Shingler SL, Robertson L, Stewart M. Graduated compression stockings for the initial treatment of varicose veins in people without venous ulceration. *Cochrane Database Syst Rev.* Jul 16 2021; 7(7): CD008819. PMID 34271595
4. Howard DP, Howard A, Kothari A, et al. The role of superficial venous surgery in the management of venous ulcers: a systematic review. *Eur J Vasc Endovasc Surg.* Oct 2008;36(4):458-465. PMID 18675558
5. O'Donnell TF, Jr. The present status of surgery of the superficial venous system in the management of venous ulcer and the evidence for the role of perforator interruption. *J Vasc Surg.* Oct 2008;48(4):1044-1052. PMID 18992425
6. Jones L, Braithwaite BD, Selwyn D, et al. Neovascularisation is the principal cause of varicose vein recurrence: results of a randomised trial of stripping the long saphenous vein. *Eur J Vasc Endovasc Surg.* Nov 1996;12(4):442-445. PMID 8980434
7. Rutgers PH, Kitslaar PJ. Randomized trial of stripping versus high ligation combined with sclerotherapy in the treatment of the incompetent greater saphenous vein. *Am J Surg.* Oct 1994;168(4):311-315. PMID 7943585.
8. Farah MH, Nayfeh T, Urtecho M, et al. A systematic review supporting the Society for Vascular Surgery, the American Venous Forum, and the American Vein and Lymphatic Society guidelines on the management of varicose veins. *J Vasc Surg Venous Lymphat Disord.* Sep 2022; 10(5): 1155-1171. PMID 34450355
9. Whing J, Nandhra S, Nesbitt C, et al. Interventions for great saphenous vein incompetence. *Cochrane Database Syst Rev.* Aug 11 2021; 8: CD005624. PMID 34378180
10. Paravastu SC, Horne M, Dodd PD. Endovenous ablation therapy (laser or radiofrequency) or foam sclerotherapy versus conventional surgical repair for short saphenous varicose veins. *Cochrane Database Syst Rev.* Nov 29, 2016;11:CD010878. PMID 27898181
11. Brittenden J, Cotton SC, Elders A, et al. A randomized trial comparing treatments for varicose veins. *N Engl J Med.* Sep 25, 2014;371(13):1218-1227. PMID 25251616
12. Rass K, Frings N, Glowacki P, et al. Comparable effectiveness of endovenous laser ablation and high ligation with stripping of the great saphenous vein: two-year results of a randomized clinical trial (RELACS study). *Arch Dermatol.* Jan 2012;148(1):49-58. PMID 21931012
13. Rass K, Frings N, Glowacki P, et al. Same site recurrence is more frequent after endovenous laser ablation compared with high ligation and stripping of the great saphenous vein: 5 year results of a randomized clinical trial (RELACS Study). *Eur J Vasc Endovasc Surg.* Nov 2015;50(5):648-656. PMID 26319476
14. Christenson JT, Gueddi S, Gemayel G, et al. Prospective randomized trial comparing endovenous laser ablation and surgery for treatment of primary great saphenous varicose veins with a 2-year follow-up. *J Vasc Surg.* Nov 2010;52(5):1234-1241. PMID 20801608
15. Biemans AA, Kockaert M, Akkersdijk GP, et al. Comparing endovenous laser ablation, foam sclerotherapy, and conventional surgery for great saphenous varicose veins. *J Vasc Surg.* Sep 2013;58(3):727-734 e721. PMID 23769603

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16. van der Velden SK, Biemans AA, De Maeseneer MG, et al. Five-year results of a randomized clinical trial of conventional surgery, endovenous laser ablation and ultrasound-guided foam sclerotherapy in patients with great saphenous varicose veins. *Br J Surg.* Sep 2015;102(10):1184-1194. PMID 26132315
17. Wallace T, El-Sheikha J, Nandhra S, et al. Long-term outcomes of endovenous laser ablation and conventional surgery for great saphenous varicose veins. *Br J Surg.* Dec 2018;105(13):1759-1767. PMID 30132797
18. Arozai T, Huizing E, Schreve MA, et al. A systematic review and meta-analysis of treatment modalities for anterior accessory saphenous vein insufficiency. *Phlebology.* Dec 30, 2021: 2683555211060998. PMID 34965757
19. Hamann SAS, Giang J, De Maeseneer MGR, et al. Editor's Choice - Five Year results of great saphenous vein treatment: a meta-analysis. *Eur J Vasc Endovasc Surg.* Dec 2017;54(6):760-770. PMID 29033337
20. Vähäaho, SS, Mahmoud, OO, Halmesmäki, KK, Albäck, AA, Noronen, KK, Vikatmaa, PP, Aho, PP, Venermo, MM. Randomized clinical trial of mechanochemical and endovenous thermal ablation of great saphenous varicose veins. *Br J Surg.* 2019 Mar 26;106(5). PMID 30908611
21. Hamel-Desnos C, Nyamekye I, Chauzat B, et al. FOVELASS: A Randomised Trial of Endovenous Laser Ablation Versus Polidocanol Foam for Small Saphenous Vein Incompetence. *Eur J Vasc Endovasc Surg.* Mar 2023; 65(3): 415-423. PMID 36470312
22. Shadid N, Ceulen R, Nelemans P, et al. Randomized clinical trial of ultrasound-guided foam sclerotherapy versus surgery for the incompetent great saphenous vein. *Br J Surg.* Aug 2012;99(8):1062-1070. PMID 22627969
23. Lam YL, Lawson JA, Toonder IM, et al. Eight-year follow-up of a randomized clinical trial comparing ultrasound-guided foam sclerotherapy with surgical stripping of the great saphenous vein. *Br J Surg.* May 2018; 105(6): 692-698. PMID 29652081
24. U.S. Food and Drug Administration, Center for Drug Evaluation and Research. Summary Review: 205098 Varithena. 2013
25. Todd KL, 3rd, Wright D, for the Vanish-Investigator Group. The VANISH-2 study: a randomized, blinded, multicenter study to evaluate the efficacy and safety of polidocanol endovenous microfoam 0.5% and 1.0% compared with placebo for the treatment of saphenofemoral junction incompetence. *Phlebology.* Oct 2014;29(9):608-618. PMID 23864535
26. Vasquez M, Gasparis AP, Varithena 017 Investigator G. A multicenter, randomized, placebo-controlled trial of endovenous thermal ablation with or without polidocanol endovenous microfoam treatment in patients with great saphenous vein incompetence and visible varicosities. *Phlebology.* May 2017;32(4):272-281. PMID 26957489
27. Deak ST. Retrograde administration of ultrasound-guided endovenous microfoam chemical ablation for the treatment of superficial venous insufficiency. *J Vasc Surg Venous Lymphat Disord.* Jul 2018; 6(4): 477-484. PMID 29909854
28. Bootun R, Lane T, Dharmarajah B, et al. Intra-procedural pain score in a randomised controlled trial comparing mechanochemical ablation to radiofrequency ablation: The Multicentre Venefit versus ClariVein(R) for varicose veins trial. *Phlebology.* Feb 2016;31(1):61-65. PMID 25193822

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29. Lane T, Bootun R, Dharmarajah B, et al. A multi-centre randomised controlled trial comparing radiofrequency and mechanical occlusion chemically assisted ablation of varicose veins - Final results of the Venefit versus Clarivein for varicose veins trial. *Phlebology*. Mar 2017;32(2):89-98. PMID 27221810
30. Lam YL, Toonder IM, Wittens CH. Clarivein(R) mechano-chemical ablation an interim analysis of a randomized controlled trial dose-finding study. *Phlebology*. Apr 2016;31(3):170-176. PMID 26249150
31. Holewijn S, van Eekeren RRJP, Vahl A, et al. Two-year results of a multicenter randomized controlled trial comparing Mechanochemical endovenous Ablation to RADiOfrequeNcy Ablation in the treatment of primary great saphenous vein incompetence (MARADONA trial). *J Vasc Surg Venous Lymphat Disord*. May 2019; 7(3): 364-374. PMID 31000063
32. Mohamed AH, Leung C, Wallace T, et al. A Randomized Controlled Trial of Endovenous Laser Ablation Versus Mechanochemical Ablation With ClariVein in the Management of Superficial Venous Incompetence (LAMA Trial). *Ann Surg*. Jun 01, 2021; 273(6): e188-e195. PMID 31977509
33. Thierens N, Holewijn S, Vissers WH, et al. Five-year outcomes of mechano-chemical ablation of primary great saphenous vein incompetence. *Phlebology*. May 2020; 35(4): 255-261. PMID 31291849
34. U.S. Food and Drug Administration. VenaSeal Closure System. PMA P140018. 2015
35. Morrison N, Gibson K, McEnroe S, et al. Randomized trial comparing cyanoacrylate embolization and radiofrequency ablation for incompetent great saphenous veins (VeClose). *J Vasc Surg*. Apr 2015;61(4):985-994. PMID 25650040
36. Gibson K, Ferris B. Cyanoacrylate closure of incompetent great, small, and accessory saphenous veins without the use of post-procedure compression: Initial outcomes of a post-market evaluation of the VenaSeal System (the WAVES Study). *Vascular*. Apr 2017;25(2):149-156. PMID 27206470
37. Klem TM, Schnater JM, Schutte PR, et al. A randomized trial of cryo stripping versus conventional stripping of the great saphenous vein. *J Vasc Surg*. Feb 2009;49(2):403-409. PMID 19028042
38. Gibson K, Khilnani N, Schul M, et al. American College of Phlebology Guidelines - Treatment of refluxing accessory saphenous veins. *Phlebology*. Aug 2017; 32(7): 448-452. PMID 27738242
39. Morrison N, Kolluri R, Vasquez M, et al. Comparison of cyanoacrylate closure and radiofrequency ablation for the treatment of incompetent great saphenous veins: 36-Month outcomes of the VeClose randomized controlled trial. *Phlebology*. Jul 2019; 34(6): 380-390. PMID 30403154
40. Eroglu, EE, Yasim, AA. A Randomised Clinical Trial Comparing N-Butyl Cyanoacrylate, Radiofrequency Ablation and Endovenous Laser Ablation for the Treatment of Superficial Venous Incompetence: Two Year Follow up Results. *Eur J Vasc Endovasc Surg*, 2018 Jul 26;56(4). PMID 30042039
41. Morrison N, Gibson K, Vasquez M, et al. VeClose trial 12-month outcomes of cyanoacrylate closure versus radiofrequency ablation for incompetent great saphenous veins. *J Vasc Surg Venous Lymphat Disord*. May 2017; 5(3): 321-330. PMID 28411697
42. Eroglu E, Yasim A, Ari M, et al. Mid-term results in the treatment of varicose veins with N-butyl cyanoacrylate. *Phlebology*. Dec 2017;32(10):665-669. PMID 28669248



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43. Zierau UT. Sealing veins with the VenaSeal Sapheon Closure System: results for 795 treated truncal veins after 1000 days. *Vasomed*. 2015;27:124-127
44. Disselhoff BC, der Kinderen DJ, Kelder JC, et al. Randomized clinical trial comparing endovenous laser with cryostripping for great saphenous varicose veins. *Br J Surg*. Oct 2008;95(10):1232-1238. PMID 18763255
45. Disselhoff BC, der Kinderen DJ, Kelder JC, et al. Five-year results of a randomized clinical trial comparing endovenous laser ablation with cryostripping for great saphenous varicose veins. *Br J Surg*. Aug 2011;98(8):1107-1111. PMID 21633948
46. De Ávila Oliveira R, Riera R, Vasconcelos V, et al. Injection sclerotherapy for varicose veins. *Cochrane Database Syst Rev*. Dec 10 2021; 12(12): CD001732. PMID 34883526
47. Leopardi D, Hoggan BL, FitrIDGE RA, et al. Systematic review of treatments for varicose veins. *Ann Vasc Surg*. Mar 2009;23(2):264-276. PMID 19059756
48. El-Sheikha J, Nandhra S, Carradice D, et al. Clinical outcomes, and quality of life 5 years after a randomized trial of concomitant or sequential phlebectomy following endovenous laser ablation for varicose veins. *Br J Surg*. Aug 2014;101(9):1093-1097. PMID 24916467
49. Yamaki T, Hamahata A, Soejima K, et al. Prospective randomised comparative study of visual foam sclerotherapy alone or in combination with ultrasound-guided foam sclerotherapy for treatment of superficial venous insufficiency: preliminary report. *Eur J Vasc Endovasc Surg*. Mar 2012;43(3):343-347. PMID 22230599
50. Michaels JA, Campbell WB, Brazier JE, et al. Randomised clinical trial, observational study and assessment of cost-effectiveness of the treatment of varicose veins (REACTIV trial). *Health Technol Assess*. Apr 2006;10(13):1-196, iii-iv. PMID 16707070
51. Luebke T, Brunkwall J. Meta-analysis of transilluminated powered phlebectomy for superficial varicosities. *J Cardiovasc Surg (Torino)*. Dec 2008;49(6):757-764. PMID 19043390
52. Chetter IC, Mylankal KJ, Hughes H, et al. Randomized clinical trial comparing multiple stab incision phlebectomy and transilluminated powered phlebectomy for varicose veins. *Br J Surg*. Feb 2006;93(2):169-174. PMID 16432820
53. Giannopoulos S, Rodriguez L, Chau M, et al. A systematic review of the outcomes of percutaneous treatment modalities for pathologic saphenous and perforating veins. *J Vasc Surg Venous Lymphat Disord*. Sep 2022; 10(5): 1172-1183.e5. PMID 35364302
54. Ho VT, Adkar SS, Harris EJ. Systematic review and meta-analysis of management of incompetent perforators in patients with chronic venous insufficiency. *J Vasc Surg Venous Lymphat Disord*. Feb 22, 2022. PMID 35217217
55. Tenbrook JA, Jr., lafrati MD, O'Donnell T F, Jr., et al. Systematic review of outcomes after surgical management of venous disease incorporating subfascial endoscopic perforator surgery. *J Vasc Surg*. Mar 2004;39(3):583-589. PMID 14981453
56. van Gent WB, Catarinella FS, Lam YL, et al. Conservative versus surgical treatment of venous leg ulcers: 10-year follow up of a randomized, multicenter trial. *Phlebology*. Mar 2015;30(1 Suppl):35-41. PMID 25729066
57. Blomgren L, Johansson G, Dahlberg-Akerman A, et al. Changes in superficial and perforating vein reflux after varicose vein surgery. *J Vasc Surg*. Aug 2005;42(2):315-320. PMID 16102633

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58. Lin ZC, Loveland PM, Johnston RV, et al. Subfascial endoscopic perforator surgery (SEPS) for treating venous leg ulcers. *Cochrane Database Syst Rev.* Mar 03, 2019; 3: CD012164. PMID 30827037
59. Luebke T, Brunkwall J. Meta-analysis of subfascial endoscopic perforator vein surgery (SEPS) for chronic venous insufficiency. *Phlebology.* Feb 2009;24(1):8-16. PMID 19155335
60. Lawrence PF, Hager ES, Harlander-Locke MP, et al. Treatment of superficial and perforator reflux and deep venous stenosis improves healing of chronic venous leg ulcers. *J Vasc Surg Venous Lymphat Disord.* Jul 2020; 8(4): 601-609. PMID 32089497
61. Masuda E, Ozsvath K, Vossler J, et al. The 2020 appropriate use criteria for chronic lower extremity venous disease of the American Venous Forum, the Society for Vascular Surgery, the American Vein and Lymphatic Society, and the Society of Interventional Radiology. *J Vasc Surg Venous Lymphat Disord.* Jul 2020; 8(4): 505-525.e4. PMID 32139328
62. Gloviczki P, Lawrence PF, Wasan SM, et al. The 2022 Society for Vascular Surgery, American Venous Forum, and American Vein and Lymphatic Society clinical practice guidelines for the management of varicose veins of the lower extremities. Part I. Duplex Scanning and Treatment of Superficial Truncal Reflux: Endorsed by the Society for Vascular Medicine and the International Union of Phlebology. *J Vasc Surg Venous Lymphat Disord.* Mar 2023; 11(2): 231-261.e6. PMID 36326210
63. American College of Phlebology. *Superficial venous disease.* 2016
64. Brittenden J, Cotton SC, Elders A, et al. Clinical effectiveness, and cost-effectiveness of foam sclerotherapy, endovenous laser ablation and surgery for varicose veins: results from the Comparison of LAser, Surgery, and foam Sclerotherapy (CLASS) randomised controlled trial. *Health Technol Assess.* Apr 2015;19(27):1-342. PMID 25858333
65. InterQual® Level of Care Criteria 2022. *Acute Care Adult. CP:Procedures.* Change Healthcare
66. National Institute for Health and Care Excellence (NICE). *Endovenous mechanochemical ablation for varicose veins [IPG557].* 2016
67. National Institute for Health and Care Excellence (NICE). *Ultrasound-guided foam sclerotherapy for varicose veins [IPG440]* 2013
68. National Institute for Health and Care Excellence (NICE). *Varicose veins: diagnosis and management [CG168].* 2016
69. Passman M, Eidt J, Collins K. Approach to treating symptomatic superficial venous insufficiency. In: *UpToDate Online Journal [serial online].* Waltham, MA; UpToDate: updated September 13, 2021. Literature review current through June 2023
70. Scovell S, Eidt J, Mills J et al. Superficial vein thrombosis and phlebitis of the lower extremity veins. In: *UpToDate Online Journal [serial online].* Waltham, MA; UpToDate: updated March 15, 2023. Literature review current through June 2023
71. Sun JJ, Chowdhury MM, Sadat U, et al. Mechanochemical ablation for treatment of truncal venous insufficiency: a review of the current literature. *J Vasc Interv Radiol.* Oct 2017;28(10):1422-1431. PMID 28811080
72. *Blue Cross Blue Shield Association Medical Policy Reference Manual.* 7.01.124, Treatment of Varicose Veins/Venous Insufficiency. June 2023

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**X. POLICY HISTORY**

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<b>MP 1.061</b>	<b>CAC 11/26/02</b>
	<b>CAC 2/25/03</b>
	<b>CAC 2/24/04</b>
	<b>CAC 12/14/04</b>
	<b>CAC 1/31/06</b>
	<b>CAC 1/30/07</b>
	<b>CAC 1/29/08</b>
	<b>CAC 5/27/08</b>
	<b>CAC 11/25/08</b>
	<b>CAC 7/28/09</b>
	<b>CAC 11/24/09 Minor revision.</b> added sclerosing agent must be FDA-approved.
	<b>CAC 11/30/10 Consensus review.</b>
	<b>CAC 7/26/11</b> Adopt BCBSA. Documentation requirement for the treatment of the greater or lesser saphenous vein varicosities that the veins are noted to be at least five (5) millimeters in diameter by visual inspection or ultrasound was removed from the policy. Documentation requirement for sclerotherapy for the treatment of superficial varices that the bulging veins are by visual inspection or ultrasound are noted to be 3mm but less than 6mm in diameter was also removed from the policy. Through adopting BCBSA, the policy is now organized into the following sections: Treatment of Greater or Lesser Saphenous Veins, Accessory Saphenous Veins, Symptomatic Varicose Tributaries, Perforator Veins, Telangiectasia, and Other which will facilitate administration. An FEP variation was added.
	<b>CAC 8/28/12</b> Wording changes for clarification to section on Treatment of symptomatic varicose tributaries. No other changes to policy statements. References updated. FEP variation changed to reference FEP policy manual MP-7.01.124 Treatment of Varicose Veins/Venous Insufficiency. Codes reviewed 8/13/12
	<b>CAC 7/30/13 Minor review.</b> Policy statement on accessory saphenous veins was modified to include isolated incompetence of the accessory saphenous vein as medically necessary. Endovenous mechanochemical ablation for varicose veins was added to the policy as investigational. Added rationale section. Admin code review complete.
<b>CAC 5/20/14 Consensus review.</b> References and rationale updated. No changes to the policy statements. Coding reviewed.	
<b>9/25/14</b> Administrative update. Removal of 'cosmetic' language. No change to medical necessity.	
<b>12/1/14 Administrative update.</b> LCD number in Medicare variation changed to reference L32678. Was L27539.	
<b>1/13/15</b> Administrative update. Section -Symptomatic Varicose Tributaries	

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<p>These must be performed either at the same time or following prior treatment (surgical, radiofrequency or laser) of the saphenous veins <u>only when</u> pathology of the saphenous veins <u>exists</u>. (For clarity)</p>
<p><b>CAC 6/2/15 Major review.</b> Added Microfoam sclerotherapy as medically necessary for the treatment of greater or lesser saphenous veins and accessory saphenous veins. Added clarification to indicate treatment of <i>varicose tributaries</i> when there is no demonstrated pathology of the saphenous veins is considered investigational. Updated rationale and references. Coding reviewed.</p>
<p><b>11/2/15 Administrative update.</b> LCD number changed from L32678 to L34924 due to Novitas update to ICD-10</p>
<p><b>12/16/15 Administrative update.</b> Added "(e.g., ClariVein and similar systems)" to Mechanochemical ablation of any vein.</p>
<p><b>CAC 3/29/16 Minor review.</b> The requirement of failure of compression therapy was removed from the policy statements on ulceration secondary to venous stasis and recurrent superficial thrombophlebitis. The terminology throughout the policy was changed from greater and lesser saphenous veins to great and small saphenous veins. CEAP classification criteria were added to the medically necessary policy statement on great and small saphenous veins and basic information about the CEAP classification system was added to the Policy Guidelines section. Cyanoacrylate adhesive of any vein added as investigational. Updated rationale and references. Coding reviewed and updated.</p>
<p><b>9/23/16 Administrative update.</b> Medicare update. Added Medicare variation to reference LCA A55229. Coding corrected.</p>
<p><b>1/1/17 Administrative update.</b> Variation reformatting. New codes 36473, 36474 added; effective 1/1/17. Removed NOC 37799 code for Mechanochemical ablation of any vein (MOCA), e.g. ClariVein.</p>
<p><b>CAC 3/28/17 Minor review.</b> Removed criteria requiring saphenous vein pathology in order to receive treatment for tributaries. Added the following for treatment of tributaries –“when persistent pain, swelling, itching, burning, or other symptoms are associated with the condition, AND the symptoms significantly interfere with activities of daily living, AND conservative management including compression therapy for at least 3 months has not improved the symptoms”. Coding reviewed.</p>
<p><b>10/1/17 Administrative update.</b> Revised ICD 10 codes effective 10/1/17.</p>
<p><b>1/1/18 Admin update.</b> New codes 36465, 36466, 36482, and 36483 added; effective 1/1/18</p>
<p><b>1/4/18 Minor review.</b> For perforator veins, added ultrasound-guided sclerotherapy (echosclerotherapy), as medically necessary for treatment of leg ulcers associated with chronic venous insufficiency when criteria are met. Added non-echosclerotherapy of perforator veins as investigational. Background, rationale and references updated. Coding Reviewed.</p>
<p><b>1/1/19 Administrative update.</b> New CPT code 0524T added effective 1/1/19.</p>

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<p><b>5/16/2019 Minor review.</b> References added. Cyanoacrylate adhesive may be considered medically necessary. Condensed rationale and updated references. Coding updated.</p>
<p><b>5/29/2020 Minor review.</b> Policy Statement updated to include clarification to conservative management, imaging requirements, added treatment requirements for initial superficial thrombophlebitis and CEAP criteria. Also clarified symptomatic varicose tributaries section. References added. Description/Background and Rationale updated. Coding reviewed.</p>
<p><b>08/13/2021 Minor review.</b> Added vein size requirement to Great or Small Saphenous Veins. Clarified hemorrhage criteria by adding medical or surgical intervention to Great or Small Saphenous Veins and Accessory Saphenous Veins sections. Included reflux requirements for Perforator Veins. Background, Rationale and References updated.</p>
<p><b>10/24/2022 Consensus review.</b> No change to policy statement. FEP language revised. Background, Rationale and References updated.</p>
<p><b>07/27/2023 Minor review.</b> Added CEAP class C2 classification and specific saphenous reflux measurements to Accessory Saphenous Vein criteria. Added CEAP class C2 classification and perforator vein size to Perforator Vein criteria. Policy guidelines section expanded to include reflux evaluation with duplex ultrasound information. Policy Variation language updated. Rationale, Abbreviations and References updated.</p>

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