

**MEDICAL POLICY**

<b>POLICY TITLE</b>	<b>TREATMENT OF VARICOSE VEINS/VENOUS INSUFFICIENCY</b>
<b>POLICY NUMBER</b>	<b>MP- 1.061</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**
- 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 treatment; **OR**
  - Hemorrhage or recurrent bleeding episodes from a ruptured superficial varicosity; **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 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:

- CEAP [Clinical, Etiology, Anatomy, Pathophysiology] 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**
- There is demonstrated accessory saphenous reflux; **AND**
- Ultrasound demonstrates vein size at least four (4) mm in diameter; **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 treatment; **OR**
  - Hemorrhage or recurrent bleeding episodes from a ruptured superficial varicosity; **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**

The following treatments are 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 (none of these techniques has been shown to be superior to another):

- 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
  - Stab avulsion
  - Hook phlebectomy
  - Sclerotherapy
  - Transilluminated powered phlebectomy

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

**Perforator Veins**

Surgical ligation (including subfascial endoscopic perforator surgery) or endovenous radiofrequency, ultrasound-guided sclerotherapy (echosclerotherapy), or laser ablation 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**
- 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.

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, angiomas, and hemangiomas 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 perforator 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).

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

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**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.

<u><b>Class</b></u>	<u><b>Definition</b></u>
C0	No visible or palpable signs of venous disease
C1	Telangiectasies or reticular veins
C2	Varicose veins
C3	Edema
C4a	Pigmentation and eczema
C4b	Lipodermatosclerosis and atrophie blanche
C5	Healed venous ulcer
C6	Active venous ulcer
S	Symptoms including ache, pain, tightness, skin irritation, heaviness, muscle cramps, as well as other complaints attributable to venous dysfunction
A	Asymptomatic

The Etiologic, Anatomic, And Pathophysiologic portions of the classifications are online (<https://www.veinforum.org/wp-content/uploads/2018/03/Revised-CEAP-Classification-May-2004.pdf>).

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.

**II. PRODUCT VARIATIONS**

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

**FEP PPO:** Refer to FEP Medical Policy Manual MP-7.01.124 Treatment of Varicose Veins/Venous Insufficiency. The FEP Medical Policy manual can be found at: <https://www.fepblue.org/benefit-plans/medical-policies-and-utilization-management-guidelines/medical-policies>

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### III. DESCRIPTION/BACKGROUND

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#### **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 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 considers the clinical, etiologic, anatomic, and pathologic (CEAP) characteristics of venous insufficiency, ranging from class 0 (no visible sign of disease) to class 6 (active ulceration).

#### **Treatment**

Treatment of venous reflux/venous insufficiency is aimed at reducing abnormal pressure transmission from the deep to the superficial veins. Conservative medical treatment consists of elevation of the extremities, graded compression, and wound care when indicated. Conventional surgical treatment consists of identifying and correcting the site of reflux by ligation of the incompetent junction followed by stripping of the vein to redirect venous flow through veins with intact valves. While most venous reflux is secondary to incompetent valves at the saphenofemoral or saphenopopliteal junctions, reflux may also occur at incompetent valves in the perforator veins or in the deep venous system. The competence of any single valve is not static and may be pressure-dependent. For example, accessory saphenous veins may have independent saphenofemoral or saphenopopliteal junctions that become incompetent when the great or small saphenous veins are eliminated and blood flow is diverted through the accessory veins.

#### **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 typically includes the following:

1. Identification by preoperative Doppler ultrasonography of the valvular incompetence
2. Control of the most proximal point of reflux, traditionally by suture ligation of the incompetent saphenofemoral or saphenopopliteal junction
3. Removal of the superficial vein from circulation, e.g., by stripping of the great and/or small saphenous veins.
4. Removal of varicose tributaries (at the time of the initial treatment or subsequently) by stab avulsion (phlebectomy) or injection sclerotherapy.

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

***Thermal Ablation***

Radiofrequency ablation (RFA) is performed by means of 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 activated and slowly removed along the course of the saphenous vein. Cryoablation uses extreme cold to cause injury to the vessel. 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 resulting in the occlusion of the vessel. The success of the treatment 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 (eg, air or carbon dioxide) with a liquid sclerosant (eg, 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 thermal endovenous 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.

**Treatment of Perforator Veins**

Perforator veins cross through the fascia and connect the deep and superficial venous systems. Incompetent perforating veins were originally treated with an open surgical procedure, called the Linton procedure, which involved a long medial calf incision to expose all posterior, medial, and paramedial perforators. While this procedure was associated with healing of ulcers, it was largely abandoned due to a high incidence of wound complications. The Linton procedure was subsequently modified by using a series of perpendicular skin flaps instead of a longitudinal skin flap to provide access to incompetent perforator veins in the lower part of the leg. The modified Linton procedure may occasionally be used to close incompetent perforator veins that cannot be reached by less invasive procedures.

Subfascial endoscopic perforator surgery is a less invasive surgical procedure for treatment of incompetent perforators and has been reported since the mid-1980s. Guided by Duplex ultrasound scanning, small incisions are made in the skin, and the perforating veins are clipped or divided by endoscopic scissors. The surgery can be performed as an outpatient procedure. Endovenous ablation of incompetent perforator veins with sclerotherapy and RFA has also been reported.

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**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 known as Varisolve®), a sclerosant microfoam made with a proprietary gas mix, was approved by 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 FDA through the 510(k) process for "endovascular coagulation of blood vessels in patients with superficial vein reflux." In 2005, the VNUS RFS™ and RFS*Flex*™ devices were cleared by FDA for "use in vessel and tissue coagulation including: treatment of incompetent (ie, refluxing) perforator and tributary veins." In 2008, the modified VNUS® 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. 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 (Vascular Insights) was cleared by FDA through the 510(k) process (K071468) for mechanochemical ablation. 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.



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**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 (QOL), and treatment-related morbidity (TRM). 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 a meaningful 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. The relevant outcomes are symptoms, change in disease status, morbid events, QOL, and TRM. 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 Food and Drug Administration 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 a meaningful improvement in the net health outcome.

Based on the available evidence, clinical input obtained in 2015, and clinical practice guidelines, the use of endovenous RFA, endovenous laser ablation, and microfoam sclerotherapy are considered to improve outcomes when used in the saphenous veins. For treatment of saphenous tributaries at the same time or following treatment of the saphenous vein, stab avulsion, hook phlebectomy, sclerotherapy, or transilluminated powered phlebectomy improve outcomes.

For individuals who have varicose veins/venous insufficiency and saphenous vein reflux who receive mechanochemical ablation (MOCA), the evidence includes two RCTs and case series. The relevant outcomes are symptoms, change in disease status, morbid events, QOL, and TRM. MOCA is a combination of liquid sclerotherapy with mechanical abrasion. Potential advantages of this procedure compared with thermal ablation are that MOCA does not require multiple needle sticks with tumescent anesthesia and may result in less pain during the procedure. The evidence on MOCA includes an RCT that compared MOCA to thermal ablation with one year results, an RCT with short-term results that compared MOCA with RFA, and case series with

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follow-up out to three years. The short-term results of one RCT suggested that intraprocedural pain is slightly lower with MOCA than with RFA. However, the second RCT showed lower occlusion rates than thermal ablation. MOCA has been assessed in relatively few patients and for short durations. Longer follow-up in RCTs with a larger number of patients is needed to evaluate the efficacy and durability of this procedure compared with established procedures. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have varicose veins/venous insufficiency and saphenous vein reflux who receive cyanoacrylate closure (CAC), the evidence includes two RCTs and a prospective cohort. The relevant outcomes are symptoms, change in disease status, morbid events, QOL, and TRM. 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 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 a meaningful 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 and multicenter series. The relevant outcomes are symptoms, change in disease status, morbid events, QOL, and TRM. 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 the effects of the technology on 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, QOL, and TRM. 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 is effective at removing varicosities; outcomes are comparable to available

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alternatives such as stab avulsion and hook phlebectomy. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

**Perforator Veins**

For individuals who have perforator vein reflux who receive ablation (eg, subfascial endoscopic perforator surgery) of perforator veins, the evidence includes RCTs and systematic reviews of RCTs. The relevant outcomes are symptoms, change in disease status, morbid events, QOL, and TRM. 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 (ie, ulcers), treatment of perforator vein reflux may be as beneficial as an alternative (eg, 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 has been shown to be as effective as the Linton procedure with a reduction in adverse events. Although only one case series has been identified showing an improvement in health outcomes, 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 a meaningful 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.

**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.

**ECHOSCLEROTHERAPY** is the use of a duplex ultrasound during sclerotherapy to guide the injections and enhance the precision of saphenous vein sclerotherapy.

**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.

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

**MECHANO-CHEMICAL ABLATION (ENDO-VENOUS)** IS a procedure where a tube with a rotating hollow wire at its tip is inserted into the affected vein in the leg. As the tube is pulled back out of the vein, the wire is rotated, damaging the lining of the vein. At the same time, a chemical is injected through the hollow wire into the vein. This causes the vein to become inflamed, then shrivel and close.

**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 BlueCross. Members and providers should consult the member's health benefit plan for information or contact Capital BlueCross for benefit information.

**VII. DISCLAIMER**

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*Capital BlueCross'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 BlueCross' Provider Services or Member Services. Capital BlueCross 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

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terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

**Treatment of telangiectasia such as spider veins, angiomata, and hemangiomata is cosmetic and therefore not covered:**

CPT Codes ®							
36468							

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

CPT Codes ®							
36473	36474						

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**Covered when medically necessary:**

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

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HCPCS Code	Description
S2202	Echosclerotherapy

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

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<b>ICD-10-CM Diagnosis Codes</b>	<b>Description</b>
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
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)

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## IX. REFERENCES

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1. Barwell JR, Davies CE, Deacon J, et al. Comparison of surgery and compression with compression alone in chronic venous ulceration (ESCHAR study): randomised controlled trial. *Lancet*. Jun 5 2004;363(9424):1854-1859. PMID 15183623
2. 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
3. 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
4. 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
5. 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
6. 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
7. 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
8. 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
9. 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
10. 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
11. 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
12. 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
13. 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

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14. 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
15. Gibson K, Morrison N, Kolluri R, et al. Twenty-four month results from a randomized trial of cyanoacrylate closure versus radiofrequency ablation for the treatment of incompetent great saphenous veins. *J Vasc Surg Venous Lymphat Disord*. Sep 2018;6(5):606-613. PMID 29914814
16. Gloviczki P, Comerota AJ, Dalsing MC, et al. The care of patients with varicose veins and associated chronic venous diseases: clinical practice guidelines of the Society for Vascular Surgery and the American Venous Forum. *J Vasc Surg*. May 2011;53(5 Suppl):2S-48S. PMID 21536172
17. Gohel MS, Barwell JR, Taylor M, et al. Long term results of compression therapy alone versus compression plus surgery in chronic venous ulceration (ESCHAR): randomised controlled trial. *BMJ*. Jul 14 2007;335(7610):83. PMID 17545185
18. Guo, LL, Huang, RR, Zhao, DD, Xu, GG, Liu, HH, Yang, JJ, Guo, TT. Long-term efficacy of different procedures for treatment of varicose veins: A network meta-analysis. *Medicine (Baltimore)*, 2019 Feb 15;98(7). PMID 30762775
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. Hirsch SA, Dillavou E. Options in the management of varicose veins, 2008. *J Cardiovasc Surg (Torino)*. Feb 2008;49(1):19-26. PMID 18212684
21. Hissink RJ, Bruins RM, Erkens R, et al. Innovative treatments in chronic venous insufficiency: endovenous laser ablation of perforating veins: a prospective short-term analysis of 58 cases. *Eur J Vasc Endovasc Surg*. Sep 2010;40(3):403-406. PMID 20547462
22. 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
23. InterQual® Level of Care Criteria 2020. *Acute Care Adult*. CP:Procedures. Change Healthcare.
24. 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
25. 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
26. Kundu S, Lurie F, Millward SF, et al. Recommended reporting standards for endovenous ablation for the treatment of venous insufficiency: joint statement of the American Venous Forum and the Society of Interventional Radiology. *J Vasc Interv Radiol*. Sep 2007;18(9):1073-1080. PMID 17804767



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27. 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
28. 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
29. 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
30. 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
31. 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
32. 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
33. Moreno-Moraga, JJ, Pascu, MM, Alcolea, JJ, Smarandache, AA, Royo, JJ, David, FF, Trelles, MM. Effects of 1064-nm Nd:YAG long-pulse laser on polidocanol microfoam injected for varicose vein treatment: a controlled observational study of 404 legs, after 5-year-long treatment. *Lasers Med Sci*, 2019 Feb 2. PMID 30707327
34. 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
35. Morrison, NN, Kolluri, RR, Vasquez, MM, Madsen, MM, Jones, AA, Gibson, KK. 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*, 2018 Nov 8;268355518810259:268355518810259. PMID 30403154
36. 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
37. Myers KA, Jolley D. Factors affecting the risk of deep venous occlusion after ultrasound-guided sclerotherapy for varicose veins. *Eur J Vasc Endovasc Surg*. Nov 2008;36(5):602-605. PMID 18718772
38. National Institute for Health and Care Excellence (NICE). Endovenous mechanochemical ablation for varicose veins [IPG557]. 2016; <https://www.nice.org.uk/guidance/ipg557>. Accessed May 5, 2020.
39. National Institute for Health and Care Excellence (NICE). Ultrasound-guided foam sclerotherapy for varicose veins [IPG440] 2013; <https://www.nice.org.uk/guidance/ipg440>. Accessed May 5, 2020.

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40. National Institute for Health and Care Excellence (NICE). *Varicose veins: diagnosis and management [CG168]*. 2013; <https://www.nice.org.uk/guidance/cg168>. Accessed May 5, 2020.
41. Nelzen O, Fransson I. Early results from a randomized trial of saphenous surgery with or without subfascial endoscopic perforator surgery in patients with a venous ulcer. *Br J Surg*. Apr 2011;98(4):495-500. PMID 21656715
42. Nesbitt C, Bedenis R, Bhattacharya V, et al. Endovenous ablation (radiofrequency and laser) and foam sclerotherapy versus open surgery for great saphenous vein varices. *Cochrane Database Syst Rev*. Jul 30 2014;7(7):CD005624. PMID 25075589
43. 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
44. 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
45. O'Meara S, Cullum NA, Nelson EA. Compression for venous leg ulcers. *Cochrane Database Syst Rev*. Jan 21 2009(1):CD000265. PMID 19160178
46. 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
47. 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
48. 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
49. 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 794358549. 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
50. Scovell S, Eidt J, Mills J et al. Phlebitis and thrombosis of the superficial lower extremity veins. Apr 2020. <https://www.uptodate.com/contents/phlebitis-and-thrombosis>. Accessed May 29, 2020
51. Shingler S, Robertson L, Boghossian S, et al. Compression stockings for the initial treatment of varicose veins in patients without venous ulceration. *Cochrane Database Syst Rev*. Nov 9 2011;11(11):CD008819. PMID 22071857
52. Society of Interventional Radiology. Position Statement on Endovenous Ablation. 2003; [https://www.sirweb.org/globalassets/aasociety-of-interventional-radiology-home-page/practice-resources/standards\\_pdfs/sir\\_venous\\_ablation\\_statement\\_final2015.pdf](https://www.sirweb.org/globalassets/aasociety-of-interventional-radiology-home-page/practice-resources/standards_pdfs/sir_venous_ablation_statement_final2015.pdf). Accessed May 5, 2020.

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53. 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*
54. Tenbrook JA, Jr., Iafrati 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*
55. Theivacumar NS, Darwood RJ, Gough MJ. Endovenous laser ablation (EVLA) of the anterior accessory great saphenous vein (AAGSV): abolition of sapheno-femoral reflux with preservation of the great saphenous vein. *Eur J Vasc Endovasc Surg. Apr 2009;37(4):477-481. PMID 19201621*
56. Tisi PV, Beverley C, Rees A. Injection sclerotherapy for varicose veins. *Cochrane Database Syst Rev. Oct 18 2006(4):CD001732. PMID 17054141*
57. 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*
58. U.S. Food and Drug Administration, Center for Drug Evaluation and Research. Summary Review: 205098 Varithena. 2013; [https://www.accessdata.fda.gov/drugsatfda\\_docs/nda/2013/205098Orig1s000SumR.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/nda/2013/205098Orig1s000SumR.pdf). Accessed May 5, 2020.
59. U.S. Food and Drug Administration. VenaSeal Closure System. PMA P140018. 2015; <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpma/pma.cfm?id=P140018>. Accessed May 5, 2020.
60. Vahaaho S, Halmesmaki K, Alback A, et al. Five-year follow-up of a randomized clinical trial comparing open surgery, foam sclerotherapy and endovenous laser ablation for great saphenous varicose veins. *Br J Surg. May 2018;105(6):686-691. PMID 29652086*
61. Vähäaho, SS, Mahmoud, OO, Halmesmaki, KK, Alback, 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*
62. 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*
63. 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*
64. 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*

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65. 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*
66. Witte ME, Holewijn S, van Eekeren RR, et al. Midterm outcome of mechanochemical endovenous ablation for the treatment of great saphenous vein insufficiency. *J Endovasc Ther. Feb 2017;24(1):149-155. PMID 27742900*
67. Witte ME, Zeebregts CJ, de Borst GJ, et al. Mechanochemical endovenous ablation of saphenous veins using the ClariVein: A systematic review. *Phlebology. Dec 2017;32(10):649-657. PMID 28403687*
68. 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*
69. Zierau UT. Sealing veins with the VenaSeal Saphen Closure System: results for 795 treated truncal veins after 1000 days. *Vasomed. 2015;27:124-127.*
70. Blue Cross Blue Shield Association Medical Policy Reference Manual. 7.01.124, Treatment of Varicose Veins/Venous Insufficiency. May 2019.

**X. POLICY HISTORY**

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	<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 Adopt BCBSA.</b> 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

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	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 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)
	<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.
	<b>11/2/15 Administrative update.</b> LCD number changed from L32678 to L34924 due to Novitas update to ICD-10
	<b>12/16/15 Administrative update.</b> Added "(e.g., ClariVein and similar systems)" to Mechanochemical ablation of any vein.
	<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

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	investigational. Updated rationale and references. Coding reviewed and updated.
	<b>9/23/16 Administrative update.</b> Medicare update. Added Medicare variation to reference LCA A55229. Coding corrected.
	<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.
	<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.
	<b>10/1/17 Administrative update.</b> Revised ICD 10 codes effective 10/1/17.
	<b>1/1/18 Admin update.</b> New codes 36465, 36466, 36482, and 36483 added; effective 1/1/18
	<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.
	<b>1/1/19 Administrative update.</b> New CPT code 0524T added effective 1/1/19.
	<b>5/16/2019 Minor review.</b> References added. Cyanoacrylate adhesive may be considered medically necessary. Condensed rationale and updated references. Coding updated.
	<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.

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