MEDICAL POLICY – 1.01.525

Postsurgical Outpatient Use of Limb Compression Devices for Venous Thromboembolism Prophylaxis

BCBSA Ref. Policy: 1.01.28

Effective Date: June 1, 2017

Last Revised: May 16, 2017

Replaces: N/A

RELATED MEDICAL POLICIES:

1.01.26 Cooling Devices Used in the Outpatient Setting

Select a hyperlink below to be directed to that section.

POLICY CRITERIA | CODING | RELATED INFORMATION
EVIDENCE REVIEW | REFERENCES | HISTORY

∞ Clicking this icon returns you to the hyperlinks menu above.

Introduction

One known risk after surgery is the development of blood clots. Clots can occur in your legs due to decreased blood flow when you are not up and about after surgery. These clots may move to your lungs and cause a pulmonary embolus, which can be life threatening. Doctors now have treatments to decrease the risk of forming clots after a surgery. The usual way to prevent blood clots is with medication. Another way to prevent blood clots is with a device that gently squeezes the legs. This is known as a limb compression device. Limb compression devices are commonly used in the hospital setting, especially before people are able to be walking around. Most people are able to ambulate once they are sent home from the hospital. For some people who have a very high risk of getting clots or who are unable to walk after hospital discharge, using a limb compression device at home is considered medically necessary to prevent blood clots after surgery. This policy describes when home compression devices are considered medically necessary and paid for by the health plan.

Note: The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.
### Policy Coverage Criteria

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Medical Necessity</th>
</tr>
</thead>
</table>
| **Outpatient limb compression devices for VTE prophylaxis** | **Outpatient use of limb compression devices for postsurgical venous thromboembolism (VTE) prophylaxis may be considered medically necessary in the following situations when criteria are met:**  
1. After **major orthopedic surgery**, including any of the following:  
   - A total hip arthroplasty (THA/THR)  
   - A total knee arthroplasty (TKA/TKR)  
   - A hip fracture surgery (HFS)  
   OR  
2. After a **major non-orthopedic surgery** including any of the following:  
   - Patient had open abdominal or open pelvic surgery  
   - Patient had surgery for a cancer diagnosis  
   - Surgery was done on a patient with age greater than 60  
   - Anesthesia time was 2 hours or more  
   - Patient was on bed rest more than 4 days in the hospital  
   - Patient has renal failure  
   - Patient has an infection  
   - Patient had a recent heart attack  
   - Patient is pregnant or is recently post-partum  
   OR  
3. After **minor non-orthopedic surgery**, such as laparoscopic cholecystectomy, appendectomy, or mastectomy  

**AND the following criteria are met:**  
- The patient has a contraindication to using standard anticoagulant medications, such as any of the following:  
  - History of significant bleeding in the past or during this surgery, or extensive dissection and revision surgery  
  - Advanced liver disease, or renal failure  
  - Currently using anti-platelet medications (eg, NSAID, ASA, Plavix, Ticlid)  
  - Known underlying bleeding disorder (eg, hemophilia, Von
Procedure | Medical Necessity
--- | ---
Willibrands, idiopathic thrombocytopenic purpura [ITP] and others)  
**OR**  
- Patient is on prolonged bed rest or confined to a chair/wheelchair and not walking around after hospital discharge

*When covered, outpatient use of limb compression devices is limited to 30 days following ANY surgery.*

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Not Medically Necessary</th>
</tr>
</thead>
</table>
| Outpatient limb compression devices for VTE prophylaxis | Outpatient use of limb compression devices is considered not medically necessary for postsurgical venous thromboembolism (VTE) prophylaxis for the following:  
- After major or non-major orthopedic surgery when the patient has no contraindications to anticoagulant therapy.  
- After major non-orthopedic surgery when the patient has no contraindications to anticoagulant therapy.  
- After major non-orthopedic surgery or non-major orthopedic surgery when the patient is at moderate or high risk of VTE and has no contraindication to anticoagulant therapy (ie, high risk for bleeding; for indications see Related Information).  
- After major non-orthopedic surgery or non-major orthopedic surgery when the patient has a low-risk of VTE.  
- After all other orthopedic/non-orthopedic surgeries when the patient has no contraindications to anti-coagulant therapy. |

**Coding**

<table>
<thead>
<tr>
<th>HCPCS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1399</td>
<td>Durable medical equipment, miscellaneous</td>
</tr>
<tr>
<td>E0650</td>
<td>Pneumatic compression, nonsegmental home model</td>
</tr>
<tr>
<td>HCPCS</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>E0651</td>
<td>Pneumatic compressor, segmental home model without calibrated gradient pressure</td>
</tr>
<tr>
<td>E0652</td>
<td>Pneumatic compressor, segmental home model with calibrated gradient pressure</td>
</tr>
<tr>
<td>E0655</td>
<td>Nonsegmental pneumatic appliance for use with pneumatic compressor, half arm</td>
</tr>
<tr>
<td>E0656</td>
<td>Segmental pneumatic appliance for use with pneumatic compressor, trunk</td>
</tr>
<tr>
<td>E0657</td>
<td>Segmental pneumatic appliance for use with pneumatic compressor, chest</td>
</tr>
<tr>
<td>E0660</td>
<td>Nonsegmental pneumatic appliance for use with pneumatic compressor, full leg</td>
</tr>
<tr>
<td>E0665</td>
<td>Nonsegmental pneumatic appliance for use with pneumatic compressor, full arm</td>
</tr>
<tr>
<td>E0666</td>
<td>Nonsegmental pneumatic appliance for use with pneumatic compressor, half leg</td>
</tr>
<tr>
<td>E0667</td>
<td>Segmental pneumatic appliance for use with pneumatic compressor, full leg</td>
</tr>
<tr>
<td>E0668</td>
<td>Segmental pneumatic appliance for use with pneumatic compressor, full arm</td>
</tr>
<tr>
<td>E0669</td>
<td>Segmental pneumatic appliance for use with pneumatic compressor, half leg</td>
</tr>
<tr>
<td>E0670</td>
<td>Segmental pneumatic appliance for use with pneumatic compressor, integrated, 2 full legs and trunk</td>
</tr>
<tr>
<td>E0671</td>
<td>Segmental gradient pressure pneumatic appliance, full leg</td>
</tr>
<tr>
<td>E0672</td>
<td>Segmental gradient pressure pneumatic appliance, full arm</td>
</tr>
<tr>
<td>E0673</td>
<td>Segmental gradient pressure pneumatic appliance, half leg</td>
</tr>
<tr>
<td>E0675</td>
<td>Pneumatic compression device, high pressure, rapid inflation/deflation cycle, for arterial insufficiency (unilateral or bilateral system)</td>
</tr>
<tr>
<td>E0676</td>
<td>Intermittent limb compression device (includes all accessories), not otherwise specified</td>
</tr>
</tbody>
</table>

**Note:** CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). HCPCS codes, descriptions and materials are copyrighted by Centers for Medicare Services (CMS).

**Related Information**

**Definition of Terms**

**Increased risk of bleeding (increasing the risk of VTE):** Includes a history of prior excessive bleeding, severe renal failure, advanced liver disease, use of anti-platelet therapy (eg, NSAID, ASA, Plavix, Ticlid), extensive surgical dissection and revision surgery, disorders of coagulation
(eg, hemophilia, Von Willebrands, ITP, and others). (See ACCP guidelines and AAOS guidelines in Practice Guidelines and Position Statements.)

**Major orthopedic surgery:** A total hip arthroplasty (THA/THR), total knee arthroplasty (TKA/TKR), or hip fracture surgery (HFS).

**Major non-orthopedic surgery:** Includes open abdominal or open pelvic surgery, especially for a cancer diagnosis, or surgery is considered major due to the patient’s age is greater than 60, or anesthesia time is 2 hours or more.

**Minor orthopedic surgery:** Includes but is not limited to arthroscopic and fracture repair procedures.

**Venous thromboembolism (VTE):** Is the combination of a deep vein thrombosis (DVT) and pulmonary embolism (PE).

---

**Summarization of AACP Guidelines on Determining High Risk for Venous Thromboembolism (VTE)**\(^3,5\)

<table>
<thead>
<tr>
<th>Major orthopedic surgeries risks for bleeding</th>
<th>Major non-orthopedic surgeries risks for bleeding</th>
<th>Recommended duration for use of limb compression device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hip, total knee and hip fracture</td>
<td>Open abdominal or pelvic surgeries</td>
<td>2 weeks, up to maximum of 30 days</td>
</tr>
<tr>
<td>History of major bleeding in the past</td>
<td>Surgery is for a cancer</td>
<td>2 weeks, up to maximum of 30 days</td>
</tr>
<tr>
<td>Severe renal failure (creatinine of or ESRD)</td>
<td>Age over 60, prior DVT, cancer</td>
<td>2 weeks, up to maximum of 30 days</td>
</tr>
<tr>
<td>Known bleeding disorder (hemophilia)</td>
<td>Age over 60, prior DVT, anesthesia of 2 hours or more, bed rest of 4 days or more</td>
<td>2 weeks, up to maximum of 30 days</td>
</tr>
<tr>
<td>Advanced liver disease</td>
<td>Renal failure, infection, peri-operative myocardial infarction</td>
<td>2 weeks, up to maximum of 30 days</td>
</tr>
<tr>
<td>N/A</td>
<td>Pregnancy or postpartum</td>
<td>2 weeks, up to maximum of 30 days</td>
</tr>
<tr>
<td>Concomitant use of anti-platelet agent (ASA, NSAID, Plavix)</td>
<td>N/A</td>
<td>2 weeks, up to maximum of 30 days</td>
</tr>
<tr>
<td>Hard to control bleeding in this surgery, extensive dissection and revision surgery</td>
<td>N/A</td>
<td>2 weeks, up to maximum of 30 days</td>
</tr>
</tbody>
</table>
Summarization of ACOG Guidelines to Determine High Risk for VTE in Gynecologic Surgery

<table>
<thead>
<tr>
<th>Risk level</th>
<th>Surgery factors</th>
<th>Patient factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Less than 30 minutes</td>
<td>Less than 40, no risk factors</td>
</tr>
<tr>
<td>Moderate</td>
<td>Less than 30 minutes</td>
<td>Less than 40, plus risk factors</td>
</tr>
<tr>
<td>N/A</td>
<td>Less than 30 minutes</td>
<td>40-60 years old, no risk factors</td>
</tr>
<tr>
<td>N/A</td>
<td>Major surgery</td>
<td>Less than 40, no risk factors</td>
</tr>
<tr>
<td>High</td>
<td>Less than 30 minutes</td>
<td>Over 60, or with extra risk factors</td>
</tr>
<tr>
<td>High</td>
<td>Major surgery</td>
<td>Over 40, plus risk factors</td>
</tr>
<tr>
<td>Highest</td>
<td>Major surgery</td>
<td>Over 60, plus prior DVT, cancer, or hyper-coagulable state</td>
</tr>
</tbody>
</table>

Guidance on Duration of Use

In patients with contraindications to pharmacologic prophylaxis who are undergoing major orthopedic surgery total hip arthroplasty (THA), total knee arthroplasty (TKA), or hip fracture surgery (HFS), the American College of Chest Physicians (ACCP) guidelines are consistent with use of intermittent pneumatic compression devices for 10-14 days after surgery. The ACCP suggestion on extended prophylaxis (up to 35 days) was a weak recommendation that did not mention pneumatic compression devices as an option.

In the ACCP guideline on VTE prophylaxis in patients undergoing non-orthopedic surgery, the length of standard duration or “limited duration” prophylaxis was not defined. However, “extended duration” pharmacologic prophylaxis was defined as four weeks; this was recommended only for patients at high risk for VTE undergoing abdominal or pelvic surgery for cancer and not otherwise at high risk for major bleeding complications.

Evidence Review

Background

Patients undergoing major surgery have an increased risk of developing deep vein thrombosis (DVT) and pulmonary embolism (PE), together known as venous thromboembolism (VTE).
Patients undergoing major orthopedic surgery (defined here as total hip arthroplasty [THA], total knee arthroplasty [TKA] and hip fracture surgery [HFS]) are at particularly high risk. Risk of DVT is increased due to venous stasis of the legs due to immobility during and after surgery. In addition, direct venous wall damage associated with the surgical procedure may occur. DVTs may be asymptomatic and generally resolve when mobility is restored. However, some episodes of acute DVT can be associated with severe complications such as a pulmonary embolism (PE), which can be fatal; this occurs when the DVT detaches and migrates to the lungs. In addition, DVT may produce long-term vascular damage that leads to chronic venous insufficiency. Without any anti-clot treatment, the incidence of lab detected DVT is approximately 42-57% after total hip replacement, and the risk of pulmonary embolism is approximately 1-28%.1 Other surgical patients may also have an increased risk of VTE during and after hospitalization. For example, the estimated rate of VTE without prophylaxis after gynecologic surgery is about 15-40%.2

Thus, antithrombotic prophylaxis is recommended for patients undergoing major orthopedic surgery and other surgical patients at increased risk of VTE. For patients undergoing major orthopedic surgery, clinical practice guidelines published in 2012 by the American College of Chest Physicians (ACCP) recommend that one of several medical agents or mechanical prophylaxis be provided rather than no thromboprophylaxis.3 The guidelines further recommend the use of pharmacologic prophylaxis during hospitalization, whether or not patients are using a limb compression device. A minimum of 10-14 days of prophylaxis is recommended, a portion of which can be after discharge during outpatient use.

The ACCP guidelines noted that compliance as a major issue with pneumatic compression devices used for thromboprophylaxis. The ACCP recommended, if this prophylactic option is selected, use should be limited to portable, battery-operated devices. Moreover, it is recommended that devices be used for 18 hours per day. A 2009 non-randomized study found that there was better compliance with a portable battery-operated pneumatic compression device compared to a non-mobile device when used by patients in the hospital following hip or knee replacement surgery.4

The ACCP also issued guidelines on VTE prophylaxis in non-orthopedic surgery patients.5 For patients undergoing general or abdominal-pelvic surgery who have a risk of VTE of 3% or higher, the ACCP recommends prophylaxis with pharmacologic agents or intermittent pneumatic compression rather than no prophylaxis. For patients at low risk for VTE (about 1.5%), the guidelines suggest mechanical prophylaxis. Unlike the guidelines on major orthopedic surgery, which recommend a minimum of 10-14 days of VTE prophylaxis, the guidelines on non-orthopedic surgery patients do not include a general timeframe for prophylaxis. They do, however, define “extended duration” pharmacologic prophylaxis as lasting 4 weeks; the latter is
recommended only for patients at high risk for VTE, undergoing abdominal or pelvic surgery for cancer who are not otherwise at high risk for major bleeding complications.

National clinical guidelines have not specifically recommended use of limb compression devices in the outpatient setting. However, with the availability of portable, battery-operated devices, there is interest in use of outpatient limb compression devices for deep vein thrombosis (DVT) following discharge from the hospital for major orthopedic and non-orthopedic surgery.

**Summary of Evidence**

The evidence for outpatient use of limb compression device, with or without medication, in individuals who have moderate/high postsurgical risk of venous thromboembolism and are able to take antithrombotic medications, includes no studies that specifically address this patient population and setting. Relevant outcomes are overall survival, symptoms, morbid events and treatment-related morbidity. Some randomized clinical trials (RCTs) have evaluated the inpatient use of limb compression as an adjunct to pharmacologic agents, but the results of these trials might not be able to be extrapolated to the outpatient setting. In studies where limb compression devices were used in both the inpatient and outpatient settings, findings were not stratified by inpatient versus outpatient use, or by patients with and without a contraindication to medication. One RCT addressed VTE prophylaxis after outpatient nonmajor orthopedic surgery but it is not clear that these patients were at moderate to high risk of VTE. Moreover, there is also a lack of evidence on compliance with limb compression devices in the outpatient setting. There is not enough evidence to determine how the use of home compression devices affects health outcomes.

The evidence for outpatient use of limb compression in individuals who have moderate-to-high postsurgical risk of VTE and are unable to take antithrombotic medication includes no studies that specifically address this patient population or setting. Relevant outcomes are overall survival, symptoms, morbid events, and treatment-related morbidity. An RCT provided data on a related question whether outpatient limb compression devices might be useful in the absence of anticoagulant use (which would be the case for patients with a contraindication to medication). This RCT reported similar rates of postoperative DVT in patients who received limb compression devices or low-molecular-weight heparin, but treatment mostly occurred in the hospital, and patients with a known coagulation disorder were excluded from participation. The evidence is insufficient to determine the effects of the technology on health outcomes.
Practice Guidelines and Position Statements

American College of Chest Physicians

In 2012, the American College of Chest Physicians (ACCP) published updated evidence-based guidelines on prevention of VTE in orthopedic surgery and non-orthopedic surgical patients. ACCP recommendations on use of limb compression devices in orthopedic surgical patients:

- “2.1.1 In patients undergoing total hip arthroplasty (THA) or total knee arthroplasty (TKA), we recommend use of one of the following for a minimum of 10 to 14 days rather than no antithrombotic prophylaxis: low-molecular-weight heparin (LMWH), fondaparinux, apixaban, dabigatran, rivaroxaban, low-dose unfractionated heparin (LDUH), adjusted-dose vitamin K antagonist(VKA), aspirin (all Grade 1B), or an intermittent pneumatic compression device (IPCD) (Grade 1C).”

- “2.1.2 In patients undergoing hip fracture surgery (HFS), we recommend use of one of the following rather than no antithrombotic prophylaxis for a minimum of 10 to 14 days: LMWH, fondaparinux, LDUH, adjusted-dose VKA, aspirin (all Grade 1B), or an IPCD (Grade 1C).”

- “2.5. In patients undergoing major orthopedic surgery, we suggest using dual prophylaxis with an antithrombotic agent and an IPCD during the hospital stay (Grade 2C).”

- “2.6. In patients undergoing major orthopedic surgery and increased risk of bleeding, we suggest using an IPCD or no prophylaxis rather than pharmacologic treatment (Grade 2C).”

For all of the above recommendations related to pneumatic compression pumps, the ACCP recommended only portable, battery-powered devices be used and stated that efforts should be made to ensure devices are worn for 18 hours per day. The authors noted that compliance is the biggest challenge associated with use of pneumatic compression devices.

ACCP recommendations on use of limb compression devices in non-orthopedic general and abdominal-pelvic surgical patients, stratified by patient risk of VTE and risk of bleeding:

Note: A recommended standard duration of prophylaxis was not defined. However, “extended duration” prophylaxis was defined as lasting 4 weeks.

- Very low risk patients (<0.5%): “We recommend that no specific pharmacologic (Grade 1B) or mechanical (Grade 2C) prophylaxis be used other than early ambulation.”

- Low risk for VTE (about 1.5%): “We suggest mechanical prophylaxis, preferably with intermittent pneumatic compression (IPC), over no prophylaxis (Grade 2C).”
Moderate risk for VTE (about 3%) and not at high risk of bleeding: “We suggest low-
molecular-weight heparin (LMWH) (Grade 2B), low-dose unfractionated heparin (LDUH) (Grade 2B), or mechanical prophylaxis, preferably with IPC (Grade 2C), over no prophylaxis.”

Moderate risk for VTE (about 3%) and high risk for major bleeding complications or in whom bleeding consequences would be particularly severe: “We suggest mechanical prophylaxis, preferably with IPC, over no prophylaxis (Grade 2C).”

High risk for VTE (about 6.0%) and not at high risk of bleeding: “We recommend pharmacologic prophylaxis with LMWH (Grade 1B) or LDUH (Grade 1B) over no prophylaxis. We suggest that mechanical prophylaxis with elastic stockings (ES) or IPC should be added to pharmacologic prophylaxis (Grade 2C).”

High risk for VTE (about 6.0%) and high risk for major bleeding complications or in whom bleeding consequences would be particularly severe: “We suggest use of mechanical prophylaxis, preferably with IPC, over no prophylaxis until the risk of bleeding diminishes and pharmacologic prophylaxis may be initiated (Grade 2C).”

High-risk for VTE, both LMWH and unfractionated heparin contraindicated or unavailable and not at high risk for major bleeding complications: “We suggest low-dose aspirin (Grade 2C), fondaparinux (Grade 2C), or mechanical prophylaxis, preferably with IPC (Grade 2C), over no prophylaxis.”

High-risk for VTE, undergoing abdominal or pelvic surgery for cancer and not otherwise at high risk for major bleeding complications: “We recommend extended duration pharmacologic prophylaxis (4 weeks) with LMWH over limited-duration prophylaxis (Grade 1B).”

**American Academy of Orthopaedic Surgeons**

In 2011, the American Academy of Orthopaedic Surgeons (AAOS) published an updated guideline on prevention of venous thromboembolism in patients undergoing elective hip and knee arthroplasty. The guideline included the following recommendations relevant to this policy:

“My is the opinion of this work group that patients be assessed for known bleeding disorders like hemophilia and for the presence of active liver disease which further increase the risk for bleeding and bleeding-associated complications. (Grade of Recommendation: Consensus)”
• “The work group suggests the use of pharmacologic agents and/or mechanical compressive devices for the prevention of venous thromboembolism in patients undergoing elective hip or knee arthroplasty, and who are not at elevated risk beyond that of the surgery itself for venous thromboembolism or bleeding. (Grade of Recommendation: Moderate)”

• “Current evidence is unclear about which prophylactic strategy (or strategies) is/are optimal or suboptimal. Therefore, the work group is unable to recommend for or against specific prophylactics in these patients. (Grade of Recommendation: Inconclusive)”

• “In the absence of reliable evidence about how long to employ these prophylactic strategies, it is the opinion of this work group that patients and physicians discuss the duration of prophylaxis. (Grade of Recommendation: Consensus)”

• “In the absence of reliable evidence, it is the opinion of this work group that patients undergoing elective hip or knee arthroplasty, and who have also had a previous venous thromboembolism, receive pharmacologic prophylaxis and mechanical compressive devices. (Grade of Recommendation: Consensus)”

• “In the absence of reliable evidence, it is the opinion of this work group that patients undergoing elective hip or knee arthroplasty, and who also have a known bleeding disorder (e.g., hemophilia) and/or active liver disease, use mechanical compressive devices for preventing venous thromboembolism. (Grade of Recommendation: Consensus)”

**American College of Obstetricians-Gynecologists**

In 2007, the American College of Obstetricians-Gynecologists (ACOG) published a practice bulletin on prevention of DVT and PE after gynecologic surgery. As with the ACCP recommendations, described above, prophylaxis recommendations varied according to patient risk level. For patients at moderate and high risk of DVT, intermittent pneumatic compression was one of the recommended options for DVT prophylaxis. For patients at highest risk (i.e., older than 60 years plus prior VTE, cancer or molecular hypercoaguable state), IPC or graduated compression stockings plus LDUH or LMWH was recommended as a prophylaxis option. For all but the highest risk patients, the practice bulletin stated that, when IPC devices were used, “the devices should be used continuously until ambulation and discontinued only at the time of hospital discharge.” For the highest risk patients, the document stated that continuing prophylaxis for 2–4 weeks after discharge should be considered.
American Orthopaedic Foot and Ankle Society

In 2013, the American Orthopaedic Foot and Ankle Society published a position statement on VTE prophylaxis after foot and ankle surgery which stated the following: “There is currently insufficient data for the American Orthopaedic Foot & Ankle Society (AOFAS) to recommend for or against routine VTE prophylaxis for patients undergoing foot and ankle surgery. Further research in this field is necessary and is encouraged.”

Medicare National Coverage

There is no national coverage determination (NCD). In the absence of an NCD, coverage decisions are left to the discretion of local Medicare carriers.

Regulatory Status

Various pneumatic and peristaltic limb compression devices, with indications including prevention of DVT, have been cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process. Portable devices that have been cleared by the FDA include:

- **Venowave™ VWS** (Venowave Inc.; Stouffville, Ontario, Canada): The device is a peristaltic pump that is strapped to the leg below the knee. It is powered using a single NiMH (nickel metal hydride) AA size battery. Different models are available that have a different maximum number of wave plate cycles per minute.

- **ActiveCare+SFT® System** (Medical Compression Systems LTD, Or Akiva, Israel): The device applies sequential pneumatic compression to the lower limb; it has the option of being battery-operated. Foot compression is achieved with use of a single-celled foot sleeve. Calf and thigh compression requires use of a 3-celled cuff sleeve.

- **Restep® DVT System** (Stortford Medical LLC, West Windsor, NJ): This is a lightweight device that utilizes single chamber pressure cuffs attached to the patient’s lower legs.

- **Kendall SCD™ 700 Sequential Compression System** (Covidien, Mansfield, MA): This pneumatic compression device can be used in the clinic or at-home. It has a two-pronged plug and is not battery-operated.


History

<table>
<thead>
<tr>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/11/13</td>
<td>New policy. New policy created with literature search through November 2012. Outpatient use of limb pneumatic compression devices after major orthopedic surgery is considered medically necessary in patients with a contraindication to pharmacological agents i.e., at high-risk for bleeding. Outpatient use is considered medically necessary after major non-orthopedic surgery in patients who are at moderate or high risk of venous thromboembolism with a contraindication to pharmacological agents. Other outpatient uses are investigational and outpatient use beyond 30 days post-surgery is not medically necessary.</td>
</tr>
<tr>
<td>02/10/14</td>
<td>Replace policy. Title changed to include the word “Postsurgical” and delete the word “Pneumatic” in the title and policy statements. Policy statement for investigational indications changed to not medically necessary indications for outpatient use of limb compression devices to prevent VTE. Policy and policy guidelines reformatted for usability. Added definition of nonmajor orthopedic surgery to Policy Guidelines. Policy updated with literature search through November 2013. Kendall SCD device added to Regulatory Status. Reference 8 added; others renumbered. Policy statements changed as noted. ICD-9 and ICD-10 codes removed; they were provided for informational purposes only.</td>
</tr>
<tr>
<td>02/10/15</td>
<td>Annual Review. No change to policy statement.</td>
</tr>
<tr>
<td>06/01/16</td>
<td>Annual Review, approved May 10, 2016. No change to policy statement. Added references 15 and 17.</td>
</tr>
<tr>
<td>03/01/17</td>
<td>Policy moved to new format. No change to policy statement.                                                                                                                                --------------------</td>
</tr>
</tbody>
</table>

Disclaimer: This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply.
Scope: Medical policies are systematically developed guidelines that serve as a resource for Company staff when determining coverage for specific medical procedures, drugs or devices. Coverage for medical services is subject to the limits and conditions of the member benefit plan. Members and their providers should consult the member benefit booklet or contact a customer service representative to determine whether there are any benefit limitations applicable to this service or supply. This medical policy does not apply to Medicare Advantage.
Discrimination is Against the Law

Premera Blue Cross complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. Premera does not exclude people or treat them differently because of race, color, national origin, age, disability or sex.

Premera:
• Provides free aids and services to people with disabilities to communicate effectively with us, such as:
  • Qualified sign language interpreters
  • Written information in other formats (large print, audio, accessible electronic formats, other formats)
• Provides free language services to people whose primary language is not English, such as:
  • Qualified interpreters
  • Information written in other languages

If you need these services, contact the Civil Rights Coordinator.

If you believe that Premera has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, or sex, you can file a grievance with:
Civil Rights Coordinator - Complaints and Appeals
PO Box 91102, Seattle, WA 98111
Toll free 855-332-4535, Fax 425-918-5592, TTY 800-842-5357
Email AppealsDepartmentInquiries@Premera.com

You can also file a grievance in person or by mail, fax, or email. If you need help filing a grievance, the Civil Rights Coordinator is available to help you.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights, electronically through the Office for Civil Rights Complaint Portal, available at https://ocrportal.hhs.gov/ocr/portal/lobby.jsf, or by mail or phone at:

U.S. Department of Health and Human Services
200 Independence Avenue SW, Room 509F, HHH Building
Washington, D.C. 20201, 1-800-368-1019, 800-537-7697 (TDD)

Getting Help in Other Languages

This Notice has Important Information. This notice may have important information about your application or coverage through Premera Blue Cross. There may be key dates in this notice. You may need to take action by certain deadlines to keep your health coverage or help with costs. You have the right to get this information and help in your language at no cost. Call 800-722-1471 (TTY: 800-842-5357).

 العربية (Arabic):
يُحترم القانون التمييز ضد العملية التي تتم على أساس عرقية أو عضوية من قبل خدمة Premera Blue Cross. قد تكون هذه المعلومات ملزمة بالفعل أو فيما يلي:
• تحديد الأعراف التي تتم على أساس عرقية أو عضوية من قبل خدمة Premera Blue Cross.
• الاتصال بالusses المطلوبة مثلاً: تزويدي النصوص المترجمة باللغة العربية.
• اتصل 800-722-1471 (TTY: 800-842-5357) (2016) 07-3376

中文 (Chinese):
本通知有重要的訊息。本通知可能有關於您透過 Premera Blue Cross 提交的申請或保險的重要訊息。本通知內可能有重要日期。您可能需要在截止日期之前採取行動，以保留您的健康保險或費用補貼。您有權利免費以您的母語得到本訊息和幫助。請撥電話 800-722-1471 (TTY: 800-842-5357).

Français (French):

Deutsche (German):

Italiano (Italian):

Chinese (Simplified):
本通知有重要的消息。本通知可能有关于您通过 Premera Blue Cross 提交的申请或保险的重要信息。本通知可能有重要的日期。您可能需要在截止日期之前采取行动，以保留您的健康保险或费用补贴。您有权免费用您的母语得到本信息和帮助。请拨打 800-722-1471 (TTY: 800-842-5357)。
