Medical Policy

Pneumatic Compression Pumps for Treatment of Lymphedema and Venous Ulcers

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Policy Number: 354
BCBSA Reference Number: 1.01.18

Related Policies
- Bioimpedance Devices for the Detection of Lymphedema, #261
- End Diastolic Pneumatic Compression Boots as Treatment of Peripheral Vascular Disease or Lymphedema, #388

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity
Single compartment or multichamber nonprogrammable lymphedema pumps applied to the limb may be considered MEDICALLY NECESSARY for the treatment of lymphedema that has failed to respond to conservative measures, such as elevation of the limb and use of compression garments.

Single compartment or multichamber programmable lymphedema pumps applied to the limb may be considered MEDICALLY NECESSARY for the treatment of lymphedema when:
1. The individual is otherwise eligible for nonprogrammable pumps; and
2. There is documentation that the individual has unique characteristics that prevent satisfactory pneumatic compression with single-compartment or multichamber nonprogrammable lymphedema pumps (e.g., significant scarring).

Single compartment or multichamber lymphedema pumps applied to the limb are considered INVESTIGATIONAL in all situations other than those specified above in the first two policy statements.

The use of lymphedema pumps to treat the trunk or chest in patients with lymphedema limited to the upper and/or lower limbs is INVESTIGATIONAL.

The use of pneumatic compression pumps to treat venous ulcers is INVESTIGATIONAL.
Medicare HMO Blue℠ and Medicare PPO Blue℠ Members

BCBSMA covers pneumatic compression devices for the following indications for Medicare HMO Blue and Medicare PPO Blue members in accordance with CMS LCD:

- For either lymphedema or CVI with venous stasis ulcers, pneumatic compression devices are covered only when prescribed by a physician and when they are used with appropriate physician oversight as described:
  - physician evaluation of the beneficiary’s condition to determine medical necessity of the device,
  - suitable instruction in the operation of the machine,
  - a treatment plan defining the pressure to be used and the frequency and duration of use, AND
  - ongoing monitoring of use and response to treatment.

- The determination by the physician of the medical necessity of a pneumatic compression device must include all of the following:
  - the beneficiary’s diagnosis and prognosis,
  - symptoms and objective findings, including measurements which establish the severity of the condition,
  - the reason the device is required, including the treatments which have been tried and failed, AND
  - the clinical response to an initial treatment with the device (The clinical response includes the change in pre-treatment measurements, ability to tolerate the treatment session and parameters, and ability of the beneficiary (or caregiver) to apply the device for continued use in the home).

- Appliances used for pneumatic compression of the chest or trunk will be denied as not reasonable and necessary.

Local Coverage Determination (LCD) for Pneumatic Compression Devices (L11503):

Prior Authorization Information

See below for situations where prior authorization may be required or may not be required.
Yes indicates that prior authorization is required.
No indicates that prior authorization is not required.

<table>
<thead>
<tr>
<th></th>
<th>Outpatient</th>
<th>Inpatient</th>
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<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Commercial PPO and Indemnity</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Medicare HMO Blue℠</td>
<td>No</td>
<td>No</td>
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<td>Medicare PPO Blue℠</td>
<td>No</td>
<td>No</td>
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CPT Codes / HCPCS Codes / ICD-9 Codes

The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

There are no specific CPT codes for these services.

HCPCS Codes

<table>
<thead>
<tr>
<th>HCPCS codes:</th>
<th>Code Description</th>
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<tr>
<td>E0650</td>
<td>Pneumatic compressor, nonsegmental home model</td>
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Description
Lymphedema is an abnormal accumulation of lymph fluid in subcutaneous tissues or body cavities resulting from obstruction of lymphatic flow. Lymphedema can be subdivided into primary and secondary categories. Primary lymphedema has no recognizable etiology, while secondary lymphedema is related to a variety of causes including surgical removal of lymph nodes, postradiation fibrosis, scarring of lymphatic channels, or congenital anomalies. Treatment includes mechanical measures (compression garments, bandaging, manual massage, pneumatic compression devices (i.e., lymphedema pumps), drugs, or rarely, surgery.

Lymphedema pumps consist of pneumatic cuffs that are connected to a pump. They use compressed air to apply pressure to the affected limb. The intention is to force excess lymph fluid out of the limb and into central body compartments in which lymphatic drainage should be preserved. Many different pneumatic compression pumps for treating lymphedema are available, with varying materials, design, degree of pressure, and complexity. There are three primary types of pumps as follows:

**Single-chamber nonprogrammable pumps**: These are the simplest pumps, consisting of a single chamber that is inflated at one time that applies uniform pressure.

**Multichamber nonprogrammable pumps**: These pumps have multiple chambers, ranging from 2 to 12 or more. The chambers are inflated sequentially and have a fixed pressure in each compartment. They can either have the same pressure in each compartment or a pressure gradient, but they do not include the ability to manually adjust the pressure in individual compartments.

**Single- or multichamber programmable pumps**: These are similar to the pumps described above except that it is possible to make manual adjustments in the pressure in the individual compartments and/or the length and frequency of the inflation cycles. In some situations, including in patients with scarring, contractures or highly sensitive skin, programmable pumps are generally considered to be the preferred option.

There are also newer 2-stage multichamber pumps suitable for home use. Treatment sessions consist of 2 phases and are meant to simulate manual lymph drainage. The first phase, a pretreatment or preparation phase, uses a proximal-to-distal gradient to clear the proximal lymphatics. The second phase, lymph drainage, uses a distal-to-proximal gradient.

Lymphedema pumps may be used in lymphedema clinics or purchased or rented for home use. This policy addresses the home use of lymphedema pumps. All lymphedema pumps are considered investigational regardless of the type, commercial name, the manufacturer or FDA approval status except when used for the medically necessary indications that are consistent with the policy statement.
Summary
The available evidence from randomized controlled trials suggests that use of pneumatic compression pumps may be effective at reducing limb volume in patients with lymphedema who fail to respond to conservative therapy. There is insufficient evidence from comparative trials that one type of pump is more effective than another for lymphedema patients. Therefore, nonprogrammable lymphedema pumps are considered medically necessary and programmable pumps are considered medically necessary only for patients unable to use the standard pumps. There is insufficient evidence that treating the truncal area in addition to the limb affected by lymphedema improves the outcomes of pneumatic compression pump treatment more than only treating the limb. Therefore, use of lymphedema pumps to treat the trunk or chest in patients with lymphedema limited to the upper and/or lower limbs is considered investigational.

There is insufficient evidence that pneumatic compression pumps enhances healing of venous ulcers compared to standard compression techniques e.g., bandaging. There are few RCTs on this topic and the existing studies do not consistently show benefit; a meta-analysis of 3 studies did not find a significant benefit of pneumatic compression pumps for ulcer healing. Thus, lymphedema pumps for the treatment of venous ulcers are considered investigational.

Policy History

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<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tr>
<td></td>
<td>“Applied to the limb” added to the first 3 policy statements for clarification. In the statement on venous ulcers, “lymphedema pumps” changed to “pneumatic compression pumps.” Effective 3/1/2014.</td>
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<tr>
<td>6/2013</td>
<td>BCBSA National medical policy review.</td>
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<tr>
<td>6/1/2012</td>
<td>New policy describing ongoing coverage and non-coverage.</td>
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Information Pertaining to All Blue Cross Blue Shield Medical Policies
Click on any of the following terms to access the relevant information:
- Medical Policy Terms of Use
- Managed Care Guidelines
- Indemnity/PPO Guidelines
- Clinical Exception Process
- Medical Technology Assessment Guidelines

References