Pneumatic Compression Pumps

Humana

Medical Coverage Policy

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Disclaimer

State and federal law, as well as contract language, including definitions and specific inclusions/exclusions, take precedence over clinical policy and must be considered first in determining eligibility for coverage. Coverage may also differ for our Medicare and/or Medicaid members based on any applicable Centers for Medicare & Medicaid Services (CMS) coverage statements including National Coverage Determinations (NCO), Local Medical Review Policies (LMRP) and/or Local Coverage Determinations. Refer to the CMS website. The member's health plan benefits in effect on the date services are rendered must be used. Clinical policy is not intended to pre-empt the judgment of the reviewing medical director or dictate to health care providers how to practice medicine. Health care providers are expected to exercise their medical judgment in rendering appropriate care. Identification of selected brand names of devices, tests and procedures in a medical coverage policy is for reference only and is not an endorsement of any one device, test or procedure over another. Clinical technology is constantly evolving, and we reserve the right to review and update this policy periodically.

Description

Pneumatic compression pumps, also referred to as intermittent pneumatic compression {IPC) pumps, consist of inflatable garments and an electric pump that fills the garments with compressed air. The inflatable garments may be thigh high, calf length or for the foot only (foot pump). Periodically, the pneumatic compression pump inflates the garment chamber (or chambers) with a preset pressure to compress the leg and then deflates. This alternating inflation/deflation is thought to improve the flow of blood back to the heart, thereby decreasing the potential complications from poor circulation. The frequency of the periodic inflation/ deflation and the amount of pressure used may vary from one device to another.

Pneumatic compression pumps may be used for either the treatment of chronic venous insufficiency or for prevention of venous thromboembolism. These devices may also be used for the treatment of lymphedema. For information regarding

pneumatic compression pumps for the treatment of lymphedema, please refer to Lymphedema - Diagnosis and Treatment Medical Coverage Policy.

There are several different types of pneumatic compression pumps/garments: unicompartmental, multicompartmental, with or without gradient pressure (programmable or nonprogrammable), advanced multicompartmental programmable, high pressure rapid inflation, ambulatory, portable, battery-powered or combination cold/compression devices.

A **unicompartmental (nonsegmented) device,** as its name suggests, consists of a single inflatable chamber that exerts uniform pressure along the affected limb. A **multicompartmental (segmented) device** has multiple chambers in the garment that inflate and deflate in a sequential fashion. Both the unicompartmental and the multicompartmental devices may be controlled either with or without manual control of the amount of pressure used in the compartments (manual control is also referred to as gradient pressure).

An advanced **multicompartmental programmable pneumatic compression device** (formerly referred to as a two-stage multichamber programmable pneumatic compression device) operates similar to the principles of manual lymph drainage (treat the proximal areas first, which is theorized to prepare the distal areas for drainage). Examples of this type of pump include, but may not be limited to, the **AIROS 6, AIROS 8, Flexitouch (Flexitouch Plus)** or **Lympha Press Optimal (Lympha Press Optimal Plus).**

A variation of the multicompartmental pneumatic compression pump is the **CircuFlow 5200 Sequential Compression Device,** which combines intermittent pneumatic compression with a sustained gradient pressure. **(Refer to Coverage Limitations section)**

High pressure, rapid inflation pneumatic compression pumps have been proposed for treatment of peripheral arterial disease/arterial insufficiency. A significantly higher pressure is used than in the more standard types of pneumatic compression pumps, along with a much more rapid inflation/deflation cycle. Examples of this type of pump include, but may not be limited to, the **ArtAssist, VascuComp 1-AI** or **VenaFlow Elite. (Refer to Coverage Limitations section)**

ActiveCare+SFT, Circul8 (Max or **Pro), Cirona 6300, Cirona 6400, MAC system, Plasma Flow, Triple Play VT DVT-EZ Home Care Kit, VenaPro** and **VenoWave** are all examples of **ambulatory, portable, battery-powered intermittent pneumatic compression pumps.** These devices are intended for one-time use (ie, for one individual; disposable after the individual's use), are lightweight and either have a battery pack attached directly to the inflatable sleeve or are connected via lead wires to a small battery pack that can either be carried over the shoulder (like a purse) or attached to a belt, which allows them to be used while the individual is out of bed; they are proposed as an aid in compliance. **(Refer to Coverage Limitations section)**

The **Dayspring Limb Compression System** is a device that has been proposed as an alternative treatment for venous insufficiency and venous stasis ulcers. Unlike pneumatic compression pumps, it does not use air to produce the compression, but rather uses a nickel-titanium shape-memory alloy to apply sequential gradient compression. The device is wearable (portable), programmable and battery powered, consisting of the controller and a garment (limb sleeve). It may also be referred to as a nonpneumatic compression controller. **(Refer to Coverage Limitations section)**

Another type of pump combines intermittent pneumatic compression with cold or heat therapy. It includes an electronic module that controls treatment time, level of compression and temperature. The unit continuously cycles liquid through circumferential wraps for cold or heat therapy, even over large surface areas. This type of device has been proposed for use to manage pain and swelling after surgery or injury. Examples of this type of pump include, but may not be limited to, the **Game Ready GRPRO 2.1, ThermoComp, Triple Play VT, VascuTherm** and the **VPULSE. (Refer to Coverage Limitations section)**

For information regarding **cold or heat therapy devices,** please refer to Cold Therapy Devices/Heating Devices/Combined Heat and Cold Therapy Devices Medical Coverage Policy.

Coverage Determination

For information regarding coverage for compression pumps for the *treatment of lymphedema,* please refer to Lymphedema - Diagnosis and Treatment Medical Coverage Policy.

Humana members may be eligible under the Plan for a **unicompartmental (nonsegmented)** or **multicompartmental (segmented) pneumatic compression pump *without* gradient pressure** (manual control of the pressure in the chamber) **(E0650, E0651)** for the following indications:

- Absence of any contraindications; **AND**
- Initial approval, if criteria are met, is limited to a maximum of 90 days;

  AND either of the following:

- Chronic venous insufficiency of the legs *with* venous stasis ulcers after a 6 consecutive month trial of conservative treatment has failed to heal the venous stasis ulcer. Conservative treatment should include all of the following:
  - Appropriate dressings for the wound; **AND**
  - Compression bandage system or compression garment; **AND**
  - Elevation of the limb; **AND**
  - Exercise; **OR**
- Prevention of deep vein thrombosis (DVT) for the individual who is unable to ambulate (walk) due to trauma, surgery that requires prolonged postoperative (after surgery) complete bed rest or other conditions that prevent any ambulation. Pneumatic compression pumps are often used in conjunction with other DVT prophylaxis (eg, low molecular weight heparin)

Humana members **may** be eligible under the Plan for a **unicompartmental (nonsegmented)** or **multicompartmental (segmented) pneumatic compression pump *with* gradient pressure*** (manual control of the pressure) **(E0652)** when **ALL** of the following criteria are met:

- Absence of any contraindications; **AND**

- Individual has undergone a 4 consecutive week trial of a unicompartmental or multicompartmental pump *without* manual control of the pressure in each chamber; **AND**

- The treating healthcare provider determines that there has been no improvement or symptoms remain; **AND**

- Submission of clinical documentation of compliance/adherence with use of the unicompartmental or multicompartmental pump without manual control of the pressure in each chamber as per the healthcare provider's instructions/ prescription;

AND ONE of the following:

- Chronic venous insufficiency of the legs with venous stasis ulcers; **OR**

- Prevention of DVT for the individual who is unable to ambulate (walk) due to trauma, surgery that requires prolonged postoperative (after surgery) complete bed rest or other conditions that prevent any ambulation. Pneumatic compression pumps are often used in conjunction with other DVT prophylaxis (eg, low molecular weight heparin)

*This would include the advanced multicompartmental programmable pumps (eg, **AIROS 6, AIROS 8, Flexitouch [Flexitouch Plus]** or **Lympha Press Optimal [Lympha Press Optimal Plus])** which are considered equally effective to standard segmented pneumatic compression pumps.

Continuation of Coverage

Pneumatic compression pumps are initially authorized for 90 days. Continued authorization is dependent upon *clinical documentation submitted by the prescribing healthcare provider* that demonstrates the following:

- Adherence with the use of the device as per the healthcare provider's instructions/prescription; **AND**

- Confirmation of clinical benefit (eg, improvement in, or prevention in worsening of, the condition for which the device was prescribed)

Note: The criteria for **pneumatic compression pumps** are not consistent with the Medicare National Coverage Policy and therefore may not be applicable to Medicare members. Refer to the CMS website for additional information.

Coverage Limitations

Humana members may **NOT** be eligible under the Plan for **pneumatic compression pumps** for any indications other than those listed above including, but may not be limited to:

- Arterial insufficiency; **OR**
- Peripheral arterial occlusive disease

All other indications are considered not medically necessary as defined in the member's individual certificate. Please refer to the member's individual certificate for the specific definition.

Humana members may **NOT** be eligible under the Plan for **pneumatic compression pumps** in the presence of any of the following contraindications:

- Acute deep vein thrombosis; **OR**
- Limb edema due to acute cellulitis

These are considered experimental/investigational as they are not identified as widely used and generally accepted for the proposed uses as reported in nationally recognized peer-reviewed medical literature published in the English language.

Humana members may **NOT** be eligible under the Plan for the **following pneumatic compression pump devices** for any indication:

- A-V Impulse System foot pump; **OR**

- High pressure, rapid inflation pneumatic compression pumps (eg, ArtAssist, VascuComp 1-AI and VenaFlow Elite)

These are considered experimental/investigational as they are not identified as widely used and generally accepted for the proposed uses as reported in nationally recognized peer-reviewed medical literature published in the English language.

Humana members may **NOT** be eligible under the Plan for **the following pneumatic compression pump devices** for any indication:

- Ambulatory, portable, battery-powered intermittent or combination intermittent and sustained pneumatic compression devices (eg, ActiveCare+SFT, Circul8 [Max or Pro], Cirona 6300, Cirona 6400, MAC system, PlasmaFlow, Triple Play VT DVT-EZ home care kit, VenaPro and VenoWave); **OR**

- Devices with a sustained gradient pressure while also delivering a higher, intermittent pneumatic compression including, but not limited to, the CircuFlow 5200 Sequential Compression device

These are considered not medically necessary as defined in the member's individual certificate. Please refer to the member's individual certificate for the specific definition.

Humana members may **NOT** be eligible under the Plan for the **Dayspring nonpneumatic compression system controller (with or without sequential calibrated gradient pressure) or garments** for any indication. These are considered experimental/investigational as they are not identified as widely used and generally accepted for the proposed uses as reported in nationally recognized peer-reviewed medical literature published in the English language.

Humana members may **NOT** be eligible under the Plan for **combination cold or heat therapy/intermittent pneumatic compression devices** (eg, Game Ready GRPRO 2.1, ThermoComp, Triple Play VT, VascuTherm and VPULSE). Therapy administered with these devices has not been proven to be any more efficacious than traditional

delivery of heat/cold (eg, ice packs, heating pads) and therefore these devices are considered convenience items.

Background

Additional information about **circulation conditions, including chronic venous insufficiency, deep vein thromboembolism** and **phlebitis** may be found from the following websites:

- American Heart Association
- National Library of Medicine

Medical Alternatives

Alternatives to **pneumatic compression pumps** include, but may not be limited to, the following:

- Prescription drug therapy
- Surgical intervention

Physician consultation is advised to make an informed decision based on an individual's health needs.

Provider Claims Codes

Any CPT, HCPCS or ICD codes listed on this medical coverage policy are for informational purposes only. Do not rely on the accuracy and inclusion of specific codes. Inclusion of a code does not guarantee coverage and or reimbursement for a service or procedure.

CPT® Code(s)	Description	Comments
No code(s) identified		

CPT® Category III Code(s)	Description	Comments
No code(s) identified		

HCPCS Code(s)	Description	Comments

E0650	Pneumatic compressor, nonsegmental home model	**Not Covered if used to report any pneumatic compression pump outlined in Coverage Limitations section**
E0651	Pneumatic compressor, segmental home model without calibrated gradient pressure	**Not Covered if used to report any pneumatic compression pump outlined in Coverage Limitations section**
E0652	Pneumatic compressor, segmental home model with calibrated gradient pressure	
E0655	Nonsegmental pneumatic appliance for use with pneumatic compressor, half arm	
E0660	Nonsegmental pneumatic appliance for use with pneumatic compressor, full leg	
E0665	Nonsegmental pneumatic appliance for use with pneumatic compressor, full arm	
E0666	Nonsegmental pneumatic appliance for use with pneumatic compressor, half leg	
E0667	Segmental pneumatic appliance for use with pneumatic compressor, full leg	
E0668	Segmental pneumatic appliance for use with pneumatic compressor, full arm	
E0669	Segmental pneumatic appliance for use with pneumatic compressor, half leg	
E0671	Segmental gradient pressure pneumatic appliance, full leg	
E0672	Segmental gradient pressure pneumatic appliance, full arm	
E0673	Segmental gradient pressure pneumatic appliance, half leg	
E0675	Pneumatic compression device, high pressure, rapid inflation/deflation cycle, for arterial insufficiency (unilateral or bilateral system)	**Not Covered**

E0676	Intermittent limb compression device (includes all accessories), not otherwise specified	**Not Covered if used to report any pneumatic compression pump outlined in Coverage Limitations section**
E0677	Non-pneumatic sequential compression garment, trunk	**Not Covered** **New Code Effective 04/01/2023**
K1024	Nonpneumatic compression controller with sequential calibrated gradient pressure	**Not Covered**
K1025	Nonpneumatic sequential compression garment, full arm	**Not Covered**
K1031	Non-pneumatic compression controller without calibrated gradient pressure	**Not Covered**
K1032	Non-pneumatic sequential compression garment, full leg	**Not Covered**
K1033	Non-pneumatic sequential compression garment, half leg	**Not Covered**

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