Medical Coverage Policy | Thoracic-Lumbo-Sacral Orthosis with Pneumatics

EFFECTIVE DATE: 03|01|2012
POLICY LAST REVIEWED: 03/04/2026

OVERVIEW
Thoracic-lumbo-sacral orthosis (TLSO) with pneumatics consists of a vest with inflatable inserts. Inflation of these expandable inserts and pressure are controlled by the patient. The device is used to unload body weight from the spine onto the iliac crests.

MEDICAL CRITERIA
Not applicable

PRIOR AUTHORIZATION
Not applicable

POLICY STATEMENT
Medicare Advantage Plans
Thoracic-lumbo-sacral orthosis incorporating pneumatic inflation is not covered as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Commercial Products
Thoracic-lumbo-sacral orthosis incorporating pneumatic inflation is considered not medically necessary as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

COVERAGE
Benefits may vary between groups/contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage, or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

BACKGROUND
A variety of back supports or braces are designed to offer stabilization and decompression as a conservative treatment for pain related to spinal disc disease and/or joint dysfunction. An orthotic that includes a pneumatic component has become commercially available, the Orthotrac Pneumatic Vest™ (manufactured by Kinesis Medical, Minneapolis, MN). Orthofix, Inc. acquired Kinesis Medical in 2000.

The pneumatic component is inflated by the patient and is designed to lift the patient's body weight off the spine and relieve intervertebral compression. The orthotic is designed to be worn intermittently throughout the day.

As with any therapy for pain, placebo-controlled trials are particularly important to document the extent of the expected placebo effect and to determine the independent contribution of the therapy itself. While the lack of published studies does not permit scientific conclusions about a pneumatic lumbar orthosis alone or in comparison to other types of back orthoses, it should be noted that the literature regarding back braces and supports is, in general, of poor quality. A meta-analysis of lumbar support devices reported that there was limited evidence that lumbar supports are more effective than no treatment of low back pain and that it was unclear if lumbar supports are more effective than other interventions for treatment of low back pain.

The absence of controlled studies of TLSO with pneumatics precludes any conclusions regarding effectiveness for the treatment of low back pain; the device is considered not medically necessary as there is no proven efficacy.

CODING

The following HCPCS code is not covered for Medicare Advantage Plans and not medically necessary for Commercial Products:

E0830 Ambulatory traction device, all types, each

RELATED POLICIES

None

PUBLISHED

Provider Update, May 2026
Provider Update, April 2025
Provider Update, April 2024
Provider Update, May 2023
Provider Update, July 2022

REFERENCES

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2. Triano J. A randomized, controlled trial of treatment for disc herniation with radiating leg pain. Available online at: http://www.clinicaltrials.gov/ct/show/NCT00220935. Last accessed September, 2011.
3. Triano J, Rogers C, Diederich J. Discopathy with leg pain: a randomized controlled trial of Orthotrac vs EZ brace. Spine J 2003; 3(5):105-6.
4. Dallolio V. Lumbar spinal decompression with a pneumatic orthosis (Orthotrac): preliminary study. Acta Neurochir Suppl 2005; 92:133-7.

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