Home Traction Therapy (for Tennessee Only)

Policy Number: CS058TN.N
Effective Date: June 1, 2023

Instructions for Use

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Related Policies

- Electrical Stimulation for the Treatment of Pain and Muscle Rehabilitation (for Tennessee Only)
- Mechanical Stretching Devices (for Tennessee Only)
- Motorized Spinal Traction (for Tennessee Only)

Application

This Medical Policy applies to Medicaid and CoverKids in the state of Tennessee.

Coverage Rationale

Home traction therapy is unproven and not medically necessary for treating low back and neck disorders with or without radiculopathy due to insufficient evidence of efficacy.

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by federal, state, or contractual requirements and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

HCPCS Code	Description
E0830	Ambulatory traction device, all types, each
E0840	Traction frame, attached to headboard, cervical traction
E0849	Traction equipment, cervical, free-standing stand/frame, pneumatic, applying traction force to other than mandible
E0850	Traction stand, freestanding, cervical traction
E0855	Cervical traction equipment not requiring additional stand or frame
E0856	Cervical traction device, with inflatable air bladder(s)
E0860	Traction equipment, overdoor, cervical
E0941	Gravity assisted traction device, any type

Description of Services

Traction is the act of drawing or pulling and relates to forces applied to the body to stretch a given part or to separate 2 or more parts. Traction is intended for individuals with musculoskeletal or neurological impairments of the spine; the objective is to relieve pain, relax muscle spasms, and decompress spinal structures. The type of traction used depends on the individual's age, weight and medical condition.

Cervical Traction

Cervical traction is noninvasive traction that is used to stretch the soft tissues of the neck and to separate the spinal joint structures to relieve neck pain. Constant traction results in tiring of the muscles, allowing the strain to rest on the joints. It is theorized that this results in a widening of the joint spaces, promoting pain relief. Cervical traction employs a free weight and pulley system or a mechanical motorized device, often involving a head or chin sling to allow pull in a cephalad direction.

Lumbar Traction

Lumbar traction is used to treat low back pain, often in conjunction with other treatment modalities. The traction may be applied intermittently, using any of several methods to treat conditions of the spine, in either an outpatient setting or in a home setting. Typically, these modalities are used short term. Various techniques have been reported to widen or decompress disc spaces, unload the vertebrae, decrease disc protrusion, or muscle spasm, separate the vertebrae, or lengthen and stabilize the spine. The duration of the exerted force applied may be intermittent or continuous throughout a treatment session.

Clinical Evidence

For low back and neck disorders with or without radiculopathy, there is insufficient, conflicting or poor clinical evidence in the published, peer-reviewed scientific literature to demonstrate the net benefit vs harm and effectiveness of home traction. Additional research is recommended.

Cervical Traction

In a single center randomized controlled trial evaluating the efficacy of a traction exercise neck brace (TENB) for the treatment of cervical spondylotic radiculopathy (CSR), Xiao et al (2021) concluded that TENB treatment significantly improved the curvature of the cervical spine and increased the size of the intervertebral foramen which reduced the symptoms of CSR. The study included 40 adults aged 21–51 years with CSR who were randomly assigned to either the treatment group (n = 20) that received cervical traction with TENB for 30 minutes at home twice a day for 4 weeks or to the control group (n = 20) who received jaw-occipital belt traction (JOBT) for vertical traction while sitting in a chair in the hospital. The authors reported that, after treatment, visual analogue scale (VAS) scores in the TENB group decreased from 6.10 to 2.45 and neck disability index (NDI) scores decreased from 22.05 to 9.60 which were lower scores than those in the control group that only received JOBT. They also reported that the curvature of the cervical vertebra, which were evaluated using the method of Borden and cervical curvature index (CCI), improved significantly more in the TENB group than in the JOBT group. Limitations of the study include the small sample size, the narrow age range of the participants and the single center design.

Colombo et al (2020) conducted a systematic literature review with meta-analysis of randomized controlled trials (RCTs) that compared the effectiveness of cervical traction therapy in reducing pain to other treatment modalities for cervical radicular syndrome (CRS). Once the literature review was completed, 81 studies were assessed and seven RCTs (589 participants) were included in the systematic review, of which, six were used for meta-analysis. The authors concluded that cervical traction appears to be superior to other conservative treatments when combined with these other treatments, with mechanical traction and continuous delivery providing better pain relief than manual traction and intermittent delivery. The meta-analysis demonstrated a low quality of evidence. Many of the studies had a high risk of bias because of a lack of blinding, inconsistent outcome reporting, inappropriate methods for randomization, and unacceptable drop-out rates. Other limitations included the lack of investigation of other functional outcomes (such as activities of daily living or adverse events), only including publications in English and including a wide variety of control groups. Future studies are needed to evaluate head-to-head comparisons of active versus passive interventions, other therapeutic interventions for CRS and study designs to minimize for biases.

Fritz et al. (2014) reported on a randomized controlled trial of 86 patients that compared exercise, exercise with mechanical traction during treatment sessions or exercise with over-door traction provided during treatment session and at home Patients with neck pain and signs of radiculopathy were randomized to 4 weeks of treatment with exercise, exercise with mechanical traction, or exercise with over-door traction. All patients were scheduled to receive 10 individual physical therapy sessions over a 4-week treatment. The primary outcome measure was Neck Disability Index and secondary outcome measure was neck and arm pain intensity–assessment was performed at four weeks, six months, and 12 months. Intention-to-treat analysis found lower Neck Disability Index scores at six months in the mechanical traction group compared to the exercise group and over-door traction group, and at 12 months in the mechanical traction group compared to the exercise group. Secondary outcomes favored mechanical traction. Limitations of the study included: the rate of loss to follow; several patients crossed over to a different treatment during the first 4 weeks; there were several baseline differences among the treatment groups (e.g., duration of symptoms).

In a prospective case series, Cai et al. (2011) evaluated potential prognostic variables and the validity of a clinical prediction rule for improvement in spondylosis neck pain after home cervical traction in 103 consecutive patients with cervical pain. The patients used a traction device with an adjustable cervical halter with a traction force equaling 10% to 15% of their body weight. They were instructed to pull the rope of the pulley system until the determined traction force was reached. The patients were instructed to perform 2 traction treatments for 20 minutes daily for 2 weeks, reinforced by a treatment diary. Standard physical examination of the cervical spine was conducted before intervention. Data on the Numerical Pain Scale (NPS) score, Neck Disability Index (NDI), Fear-Avoidance Beliefs Questionnaire (FABQ) scores, and a global rating of perceived improvement were collected before and after treatment. A positive treatment response was defined as 50% improvement between pre- and post-treatment of NPS or NDI or rated as much improved or completely recovered in the global rating scheme. Forty-seven patients had a positive response to home cervical traction, while 56 did not. This study is limited by its short-term follow-up and lack of controls.

Young et al. (2009) conducted a randomized controlled trial of 81 patients with cervical radiculopathy. The patients received manual therapy, exercise, and intermittent cervical traction or they received manual therapy, exercise, and sham intermittent cervical traction. The results suggested that the addition of mechanical cervical traction to a multimodal treatment program of manual therapy and exercise yields no significant additional benefit to pain, function, or disability in patients with cervical radiculopathy.

A Cochrane review of 7 randomized controlled trials (n = 958) by Graham et al. (2008) assessed the effects of mechanical traction for neck disorders. Outcomes included pain, function, disability, global perceived effect, patient satisfaction, and quality of life measures. The review found no statistically significant difference between continuous traction and placebo traction in reducing pain or improving function for chronic neck disorders with radicular symptoms. The authors concluded that there was no evidence to clearly support or refute the use of either continuous or intermittent traction for neck disorders. Further studies are needed to assess the safety and efficacy of traction for neck disorders.

Olivero and Dulebohn (2002) conducted a retrospective review of 81 patients receiving halter cervical traction for the treatment of cervical radiculopathy. All patients experienced at least 6 weeks of symptoms before undergoing a trial of traction that consisted of wearing a cervical collar and home-based halter cervical traction: 8 to 12 pounds, applied for 15 minutes, 3 times a day for 3 to 6 weeks. Sixty-three (78%) of 81 patients responded to therapeutic traction, experiencing significant or total pain relief, 3 could not tolerate the traction, and traction failed in 15 patients. Three of the 63 patients who responded to traction therapy, suffered recurrence of their symptoms and required surgery. The authors concluded that 75% of patients with at least a 6 week history of cervical radiculopathy will benefit from home-based halter traction therapy. The study is limited by small sample size and lack of a comparison group.

Swezey et al. (1999) reported that a brief (3-5 min), over-the-door home cervical traction modality provided symptomatic relief in 81% of patients (n = 58) with mild to moderately severe (Grade 3) cervical spondylosis syndromes. Five patients discontinued treatment after reporting transient symptom aggravation with traction. No serious or sustained adverse events were recorded. The author noted that prospective, randomized assessment of cervical traction for this and other methods is needed.

Lumbar Traction

In November 2016, the National Institute for Health and Care Excellence (NICE) published guideline NG59 on Low back pain and sciatica in over 16s: assessment and management which addressed non-invasive treatments and specifically cited not to offer traction for managing low back pain with or without sciatica. The guideline did recommend consideration of manual

therapy (spinal manipulation, mobilization or soft tissue techniques such as massage) for managing low back pain with or without sciatica, but only as part of a treatment package including exercise, with or without psychological therapy. for low back pain and sciatica.

Wegner et al. (2013) published an update to a 2007 Cochrane review (Clarke, et al., 2007) that assessed the effects of traction compared to placebo, sham traction, reference treatments and no treatment in people with low back pain (LBP). The review included 32 randomized controlled trials with 2,762 participants involving traction to treat acute (less than four weeks' duration), subacute (four to 12 weeks' duration) or chronic (more than 12 weeks' duration) non-specific LBP with or without sciatica. The review found for individuals with mixed symptom patterns (acute, subacute and chronic LBP with and without sciatica) there was low- to moderate-quality evidence that traction may make little or no difference in pain intensity, functional status, global improvement or return to work when compared to placebo, sham traction or no treatment. The review noted that for people with LBP with sciatica and acute, subacute or chronic pain, there was low- to moderate-quality evidence that traction probably has no impact on pain intensity, functional status or global improvement. Regarding chronic LBP without sciatica, the review found that there was moderate-quality evidence that traction probably makes little or no difference in pain intensity when compared with sham treatment. The authors concluded that the findings indicate that traction, either alone or in combination with other treatments, has little or no impact on pain intensity, functional status, global improvement and return to work among people with LBP. The review found that there is only limited-quality evidence from studies with small sample sizes and moderate to high risk of bias and that the effects shown by these studies are small and not clinically relevant.

The Cochrane systematic review referenced by Wegner was conducted for the purpose of determining the effectiveness of traction in the management of LBP with or without sciatica (Clarke et al., 2007). The study included randomized controlled trials involving traction to treat acute, subacute or chronic nonspecific LBP with or without sciatica. The review included 25 studies. The studies included 2206 patients with 1045 receiving traction. Five of these trials were considered high quality. The authors concluded that traction is probably not effective, and traction as single treatment for LBP is not supported by the studies. In addition, the authors noted that future research on traction for patients with LBP should distinguish between symptom pattern and duration and should be carried out according to the highest methodological standards.

There is insufficient evidence in the published, peer-reviewed scientific literature to demonstrate that home traction is effective treatment. In general, studies have been of poor methodological quality, with small sample sizes and lack of randomization. Further randomized controlled clinical trials are needed.

Clinical Practice Guidelines

North American Spine Society (NASS)

The NASS evidence-based clinical guideline (Kreiner et al., 2020) for diagnosis and treatment of low back pain indicated that traction is not recommended as it provides no clinically significant improvement in pain or function in patients with subacute or chronic low back pain.

The NASS evidence-based clinical guideline (Kreiner et al., 2011) for diagnosis and treatment of lumbar disc herniation with radiculopathy noted that there is insufficient evidence to make a recommendation for or against the use of traction in the treatment of lumbar disc herniation with radiculopathy.

The NASS evidence-based clinical guideline for the diagnosis and treatment of cervical radiculopathy from degenerative disorders noted that regarding the role of traction in the treatment of cervical radiculopathy from degenerative disorders that cervical halter traction and combinations of medications, physical therapy, injections and traction have been associated with improvements in patient reported pain in uncontrolled case series. They noted that such modalities may be considered recognizing that no improvement relative to the natural history of cervical radiculopathy has been demonstrated (Bono et al., 2010).

American College of Physicians/American Pain Society

A joint clinical practice guideline from the American College of Physicians and the American Pain Society for the diagnosis and treatment of low back pain notes that intermittent or continuous traction in patients with or without sciatica have not been proven effective for chronic low back pain (Chou, et al., 2007).

American College of Physicians (ACP)

In 2017, the ACP developed a clinical practice guideline to present the evidence and provide clinical recommendations on noninvasive treatment of low back pain. The committee based these recommendations on a systematic review of randomized, controlled trials and systematic reviews published through April 2015 on noninvasive pharmacologic and nonpharmacologic treatments for low back pain. Updated searches were performed through November 2016. Clinical outcomes evaluated included reduction or elimination of low back pain, improvement in back-specific and overall function, improvement in health-related quality of life, reduction in work disability and return to work, global improvement, number of back pain episodes or time between episodes, patient satisfaction, and adverse effects.

The 2017 clinical practice guideline on acute, subacute, and chronic low back pain in adults continued to find insufficient evidence to evaluate the effectiveness of spine traction alone or in combination with other therapies. Low-quality evidence failed to reveal a difference between traction and other treatments for radicular low back pain (Qaseem et al., 2017).

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

Non-powered orthopedic traction devices are classified by the FDA as Class I devices. There are numerous FDA-registered traction devices including foam or rigid collars, and over-the-door pulley, pneumatic, or mechanical systems. The devices are exempt from the premarket notification procedures. Additional information is available at: https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPCD/classification.cfm. (Accessed December 16, 2022)

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Policy History/Revision Information

Date	Summary of Changes
06/01/2023	**Supporting Information** • Updated *Clinical Evidence* and *References* sections to reflect the most current information • Archived previous policy version CS058TN.M

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state or contractual requirements for benefit plan coverage govern. Before using this policy, please check the federal, state or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

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