

1 **Clinical Practice Guideline:** **Mechanical Traction (Provided in a Clinic Setting)**
2
3 **Date of Implementation:** **June 16, 2016**
4
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6
7 **Product:** **Specialty**

<p>9 Related Policies: 10 CPG 83: Axial Decompression Therapy 11 CPG 121: Passive Physiotherapy (Therapeutic) Modalities 12 CPG 135: Physical Therapy Medical Policy/Guideline 13 CPG 155: Occupational Therapy Medical Policy/Guideline 14 CPG 265: Home Traction Therapy</p>

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1 **GUIDELINES**

2 **Cervical Spine**

3 American Specialty Health – Specialty (ASH) considers use of cervical mechanical traction
4 as medically necessary for patients who meet **ALL of the following** criteria:

- 5 • Failure of other evidence-based therapeutic procedures to significantly improve
6 symptoms after 3 weeks.
- 7 • Only used in combination with other evidence-based treatments including
8 therapeutic exercise. The therapeutic exercise(s) should not cause aggravation or
9 peripheralization of symptoms.
- 10 • Cervical radiculopathy should be supported by the exam findings including
11 provocative testing such as positive shoulder abduction, positive upper limb tension
12 test A, and/or positive neck distraction test.

13
14 ASH considers cervical mechanical traction as unproven because there is insufficient
15 evidence for treatment of other conditions or when the above criteria are not met.

16
17 **Lumbar Spine**

18 ASH considers use of lumbar mechanical traction as medically necessary for patients who
19 meet **ALL of the following** criteria:

- 20 • Failure of other evidence-based therapeutic procedures to significantly improve
21 symptoms after 3 weeks.
- 22 • Patient has sciatica or signs of nerve root compression and either peripheralization
23 with extension movements or a positive crossed straight leg raise test.
- 24 • Only used in combination with other evidence-based treatments including
25 therapeutic exercise with extension movements. The therapeutic exercise(s) should
26 not cause aggravation or peripheralization of symptoms.

27
28 ASH considers lumbar mechanical traction as unproven because there is insufficient
29 evidence for treatment of other conditions or when the above criteria are not met. These
30 guidelines are NOT relevant to axial or spinal decompression therapy.

31
32 **Thoracic Spine**

33 ASH considers mechanical traction applied to the thoracic spine as unproven because there
34 is insufficient evidence for treatment of thoracic conditions or other spinal conditions
35 beyond those outlined in this guideline.

36
37 ASH considers mechanical traction for spinal conditions not specified in this guideline as
38 unproven due to a lack of supporting evidence.

GENERAL MEDICAL NECESSITY CRITERIA

- This therapy service is considered medically necessary when the judgment, knowledge, and skills of a qualified practitioner of therapy services (as defined by the scope of practice in each state) are necessary to safely and effectively furnish this therapy service because of the complexity and sophistication of the plan of care and the medical condition(s) of the patient, with the goal of improving an impairment or functional limitation.
- The patient’s condition has the potential to improve or is improving in response to this therapy service.
- The patient has not achieved maximum improvement from care.
- There is an expectation that the patient’s anticipated improvement is attainable in a reasonable and predictable period of time and will result in a clinically significant level of functional improvement through the use of this therapy service.
- The patient’s treatment is individualized and there is documentation outlining quantifiable, attainable treatment goals with the use of this therapy service and the patient’s overall plan of care.
- This therapy service is intended to improve, adapt or restore functions which have been impaired or lost as a result of illness, injury, loss of a body part, or congenital abnormality.
- The use of this therapy service (e.g., dosage, frequency) corresponds with the current nature, status, and severity of the patient’s condition(s).
- The use of this therapy service is decreased as the patient displays improvement and the plan of care transitions into other skilled treatment procedures that can safely and effectively restore, adapt or improve the patient’s impaired function(s).
- The use of this therapy service is safe and effective for the patient’s condition, and the patient is able to properly provide the necessary feedback for its safe application.
- The use of this therapy service is not redundant with other therapy services used on the same body part during the same session and is not duplicative with another practitioner’s treatment plan.

CPT® Codes and Descriptions

CPT® Code	CPT® Code Description
97012	Application of a modality to 1 or more areas; traction, mechanical

DESCRIPTION/BACKGROUND

Traction is a therapeutic method used to relieve pain by stretching and separating the vertebrae to help to relieve direct nerve pressure and stress on the vertebral discs. Cervical traction is a common nonsurgical treatment for a herniated disc in the neck that relieves pain by opening up the cervical foramen to reduce pressure on compressed nerve roots

1 exiting the spinal canal. Traction can either be applied manually or by spinal traction
 2 devices. This guideline focuses on various mechanical traction devices that provide
 3 continuous or intermittent forces to the spine. It has been proposed that cervical traction
 4 results in an expansion of the intervertebral spaces, an increase joint mobility, and a
 5 stretching muscles and ligaments adjacent to the vertebral bodies, which will improve
 6 clinical outcomes in those with neck pain. After 2 minutes of sustained traction, the
 7 intervertebral spaces begin to widen. Forces between 20 and 50 pounds are frequently used
 8 to achieve intervertebral separation. Continuous or static traction can be applied in a steady
 9 amount for specific time periods. Intermittent or cyclical traction involves traction being
 10 applied and released multiple times during one treatment session. Duration of cervical
 11 traction can range from a few minutes to 20 to 30 minutes, one to three times weekly.

12
 13 Traction is used for treatment of low back pain (LBP) as well and it is provided in
 14 combination with other treatment modalities, as is cervical traction. Lumbar traction uses
 15 a harness (with Velcro strapping) that is put around the lower rib cage and around the iliac
 16 crest. Duration and level of force exerted through this harness can be varied in a continuous
 17 or intermittent mode. The exact mechanism through which traction might be effective is
 18 still unclear. It has been suggested that spinal elongation, through decreasing lordosis and
 19 increasing intervertebral space, inhibits pain (nociceptive) impulses, improves mobility,
 20 decreases mechanical stress, reduces muscle spasm or spinal nerve root compression (due
 21 to osteophytes), releases luxation of a disc or capsule from the zygapophyseal joint, and
 22 releases adhesions around the zygapophyseal joint and the annulus fibrosus. So far, the
 23 proposed mechanisms have not been supported by sufficient empirical information.

24 25 **Contraindications and Precautions**

26 Contraindications for mechanical traction include:

- 27 • Where motion is contraindicated
- 28 • Acute injury or inflammation
- 29 • Joint hypermobility or instability
- 30 • Peripheralization of symptoms with traction
- 31 • Uncontrolled hypertension
- 32 • Congenital spinal deformity
- 33 • Fractures
- 34 • Impaired mentation

35
 36 Precautions for mechanical traction include:

- 37 • Structural diseases or conditions affecting the tissues in the area to be treated (e.g.,
 38 tumor, infection, osteoporosis, RA, prolonged systemic steroid use, local radiation
 39 therapy)
- 40 • When pressure of the belts may be hazardous (e.g., with pregnancy, hiatal hernia,
 41 vascular compromise, osteoporosis)

- 1 • Cardiovascular disease
- 2 • Displaced annular fragment
- 3 • Medial disc protrusion
- 4 • Cord compression
- 5 • When severe pain fully resolves with traction
- 6 • Claustrophobia or other psychological aversion to traction
- 7 • Inability to tolerate prone or supine position
- 8 • Disorientation

9

10 Additional precautions for *cervical* traction:

- 11 • TMJ problems
- 12 • Dentures

13

14 **EVIDENCE REVIEW**

15 **Cervical**

16 Although traction has been used as a treatment for neck pain for decades, its effectiveness
 17 is unproven. Large, well designed, randomized controlled trials are needed that evaluate
 18 the effect of cervical traction as an adjunct treatment in both chronic and acute neck pain
 19 syndromes. Regardless, cervical traction remains a common treatment modality in the
 20 treatment of neck pain and radiculopathy. Borman et al. (2008) evaluated cervical traction
 21 for the treatment of chronic neck pain. Patients received standard care (hot pack, ultrasound
 22 and exercise) or cervical traction + standard care. The main outcome measures of the
 23 treatment were pain intensity by visual analog scale (VAS), disability by neck disability
 24 index (NDI), and quality of life assessed by Nottingham Health Profile (NHP) Both groups
 25 improved significantly in pain intensity and the scores of NDI and physical status of NHP
 26 at the end of the therapies ($p < 0.05$). Authors concluded that there was no specific effect of
 27 traction over standard physical therapy interventions in patients with chronic neck pain.
 28 Young et al. (2009) conducted a randomized controlled trial (RCT) on 81 patients with
 29 cervical radiculopathy to examine the effects of manual therapy and exercise, with or
 30 without the addition of cervical traction, on pain, function, and disability. Patients were
 31 randomly assigned to 1 of 2 groups: a group that received manual therapy, exercise, and
 32 intermittent cervical traction and a group that received manual therapy, exercise, and sham
 33 intermittent cervical traction. Patients were treated, on average, 2 times per week for an
 34 average of 4.2 weeks. Results demonstrated there were no significant differences between
 35 the groups for any of the primary or secondary outcome measures at 2 weeks or 4 weeks.
 36 Authors concluded that the addition of mechanical cervical traction to a multimodal
 37 treatment program of manual therapy and exercise adds no significant additional benefit to
 38 pain, function, or disability in patients with cervical radiculopathy.

39

40 Chiu et al. (2011) investigated the efficacy of intermittent cervical traction in the treatment
 41 of chronic neck pain over a 12-week period in an RCT of 79 patients The experimental

1 group received intermittent cervical traction, and the control group received infrared
2 irradiation alone twice a week over a period of six weeks. The authors concluded that there
3 were no significant differences between the two groups. Graham et al. (2013) completed a
4 systematic review on physical modalities for acute to chronic neck pain. Of 103 reviews
5 eligible, 20 were included and 83 were excluded. Moderate evidence of benefit in the short
6 term was noted for intermittent traction over placebo for chronic neck pain. No benefit was
7 noted for continuous traction over placebo for whiplash associated disorder (WAD).
8 Moderate evidence of no benefit for continuous traction was noted, as it was no better than
9 placebo for acute whiplash associated disorder, chronic myofascial neck pain or subacute
10 to chronic neck pain. Improved design and long term follow up were suggested for future
11 research.

12
13 Raney et al. (2009) sought to determine a clinical prediction rule (CPR) to identify those
14 patients that were likely to benefit from cervical traction and exercise. Patients were
15 randomly selected into the following groups: exercise only, exercise with mechanical
16 traction, or exercise with over-door traction for patients with cervical radiculopathy. Sixty-
17 eight patients (38 female) were included in data analysis of which 30 had a successful
18 outcome. A CPR with five variables was identified: (1) patient reported peripheralization
19 with lower cervical spine (C4-7) mobility testing; (2) positive shoulder abduction test;
20 (3) age \geq 55; (4) positive upper limb tension test A; and (5) positive neck distraction
21 test. Having at least three out of five predictors present resulted in a +LR equal to 4.81
22 (95% CI = 2.17-11.4), increasing the likelihood of success with cervical traction from
23 44 to 79.2%. If at least four out of five variables were present, the +LR was equal to 23.1
24 (2.5-227.9), increasing the post-test probability of having improvement with cervical
25 traction to 94.8%. This preliminary CPR provides the ability to a priori identify patients
26 with neck pain likely to experience a dramatic response with cervical traction and exercise.
27 Before the rule can be implemented in routine clinical practice, future studies are necessary
28 to validate the rule.

29
30 In 2014, Fritz et al. examined the effectiveness of cervical traction in addition to exercise
31 for specific subgroups of patients with neck pain. Patients with neck pain and signs of
32 radiculopathy were randomized to 4 weeks of treatment with exercise, exercise with
33 mechanical traction, or exercise with over-door traction. Secondary outcomes favored
34 mechanical traction at several time points. The validity of the subgrouping rule was
35 supported on the Neck Disability Index at the 6-month time point only. Authors concluded
36 that adding mechanical traction to exercise for patients with cervical radiculopathy resulted
37 in lower disability and pain, particularly at long-term follow-ups.

38
39 Yang et al. (2017) performed a comprehensive search of current literature and conduct a
40 meta-analysis of randomized controlled trials (RCTs) to assess the neck pain relieving
41 effect of intermittent cervical traction (ICT). The meta-analysis included seven RCTs. The
42 results indicated that patients who received ICT for neck pain had significantly lower pain

1 scores than those receiving placebos did immediately after treatment. The pain scores
2 during the follow-up period and the neck disability index scores immediately after
3 treatment and during the follow-up period did not differ significantly. Authors concluded
4 that ICT may have a short-term neck pain-relieving effect. Some risks of bias were noted
5 in the included studies, reducing the evidence level of this meta-analysis. According to

6
7 Blanpied et al. (2017), for patients with chronic neck pain with mobility deficits, clinicians
8 should provide a multimodal approach that may include intermittent mechanical/manual
9 traction. They also report that for patients with chronic neck pain with radiating pain,
10 clinicians should provide mechanical intermittent cervical traction, combined with other
11 interventions such as stretching and strengthening exercise plus cervical and thoracic
12 mobilization/manipulation. However, Bier et al. (2018) states that the physical therapist is
13 advised not to use traction. Romeo et al. (2018) conducted a review and meta-analysis of
14 randomized controlled trials (RCTs) on the effect of cervical traction combined with other
15 physical therapy procedures versus physical therapy procedures alone on pain and
16 disability on patients with cervical radiculopathy (CR). Five studies met the inclusion
17 criteria. Mechanical traction had a significant effect on pain at short- and intermediate-
18 terms and significant effects on disability at intermediate term. Manual traction had
19 significant effects on pain at short- term. Authors conclude that the current literature lends
20 some support to the use of the mechanical and manual traction for CR in addition to other
21 physical therapy procedures for pain reduction but yielding lesser effects on
22 function/disability.

23
24 Colombo et al. (2020) investigated the effectiveness of traction therapy in reducing pain
25 for patients with cervical radicular syndrome (CRS) by performing a systematic review
26 with meta-analysis. A total of seven studies (589 patients), one with low risk of bias, were
27 evaluated. An overall estimate of treatment modalities showed low evidence that adding
28 traction to other treatments is statistically compared to other treatments alone. The
29 subgroup analyses were still statistically significant only for mechanical and continuous
30 modalities. Authors concluded that overall analysis showed that, compared to controls,
31 reduction in pain intensity after traction therapy was achieved in patients with cervical
32 radiculopathy. However, the quality of evidence was generally low and none of these
33 effects were clinically meaningful.

34
35 Jellad et al. (2024) sought to make a preliminary estimate of efficacy of adding mechanical
36 intermittent cervical traction (MICT) to conventional rehabilitation on cervicogenic
37 headache (CGH) in patients with cervical radiculopathy (CR). A total of 36 CR patients
38 with CGH were randomly allocated to 3 equally sized groups (A, B and C). The treatment
39 consisted of twelve sessions of conventional rehabilitation (4 weeks) combined with MICT
40 (2 kg for group A, 8 kg for group B and 12 kg for group C). Primary outcomes were CGH
41 intensity (visual analog scale) and frequency (days per week). Secondary outcomes were
42 radicular pain intensity (visual analog scale), cervical range of motion (cervical range of

1 motion instrument), proprioception (cervical range of motion instrument) and muscle
 2 strength (MicroFET2 dynamometer), handgrip strength (handheld dynamometer), function
 3 (Neck Disability Index), kinesiophobia (Tampa Scale for Kinesiophobia), anxiety and
 4 depression (Hospital Anxiety and Depression questionnaire), and quality of life (World
 5 Health Organization Quality of Life). Patients were assessed at baseline, 1, 3 and 6 months
 6 after the beginning of treatment. At 1-, 3- and 6-month follow-ups, Group C exhibited the
 7 highest improvement in CGH intensity and frequency compared to the other groups. Both
 8 groups C and B showed a significant improvement in radicular pain compared to group A
 9 at one month follow-up. The improvement in group C was significantly better in terms of
 10 function and anxiety at three months and quality of life at 6 months. Authors concluded
 11 that the blend of conventional rehabilitation alongside 12 kg MICT seems to be efficacious
 12 in diminishing both the intensity and frequency of CGH in patients with CR. These
 13 advantages appear to last for up to six months following the treatment period, potentially
 14 leading to decreased CGH severity and occurrence rates, heightened functionality, reduced
 15 anxiety levels, and an overall enhancement in quality of life. These findings are preliminary
 16 and require confirmation in larger trials.

17 **Lumbar**

18 According to the Philadelphia Panel Evidence-Based Clinical Practice Guidelines on
 19 Selected Rehabilitation Interventions for Low Back Pain publication (2001), mechanical
 20 traction for chronic LBP was not effective or beneficial for pain, function, patient global
 21 assessment, and return to work. This was based on 4 RCTs of mechanical traction versus
 22 placebo or no treatment and rated as level I (good evidence). A larger Cochrane
 23 Collaboration systematic review by Clarke et al. (2009) determined similar results (25
 24 RCTs). Available studies in this review involved mixed groups of acute, sub-acute and
 25 chronic patients with LBP with and without sciatica and were all consistent, indicating that
 26 continuous or intermittent traction as a single treatment for LBP is not likely effective for
 27 these patients. Traction for patients with sciatica cannot be judged effective at present
 28 either, due to inconsistent results or methodological problems in most studies. An updated
 29 Cochrane review published in 2013 by Wegner et al. indicated that traction, either alone or
 30 in combination with other treatments, has little or no impact on pain intensity, functional
 31 status, global improvement and return to work among people with LBP (with or without
 32 sciatica). The effects shown by the included studies were small and not clinically relevant.
 33 These conclusions were applicable to both manual and mechanical traction.

34
 35
 36 One study attempted to determine which subcategory of patients with LBP would most
 37 benefit from mechanical traction. Fritz et al. (2007) determined that patients with sciatica,
 38 signs of nerve root compression, and either peripheralization with extension movements or
 39 a positive crossed straight leg raise test were most likely to benefit from a combined
 40 traction and extension-oriented physical therapy intervention. The authors reported
 41 improvements in both disability (Oswestry Disability Questionnaire) and fear-avoidance
 42 beliefs (Fear Avoidance Belief Questionnaire) in the combined traction/extension-oriented

1 approach group at 2 weeks compared to the group that received just an extension-oriented
 2 approach. This study provides some initial evidence for the use of traction for the subgroup
 3 of patients mentioned above. The primary limitation to this study is the type of traction
 4 table used is not one that is typically found in most clinical settings. The authors used a
 5 mechanical traction table allowing for modifications of a subject's position in
 6 flexion/extension, rotation or side-bending (3-dimensional ActiveTrac table, The Saunders
 7 Group, Inc.). The following parameters were utilized: static traction for a maximum of
 8 12 minutes (10 minutes at desired intensity and one minute ramp up/down) at 40% - 60%
 9 of the patient's body weight for a maximum of 12 sessions during a 6-week period (four
 10 sessions/week during the first two weeks then one session/week during weeks three
 11 through six). Thackeray et al. (2016) examined the effectiveness of mechanical traction in
 12 patients with lumbar nerve root compression and within a predefined subgroup. One
 13 hundred twenty patients with low back pain with nerve root compression were recruited
 14 from physical therapy clinics. Using predefined subgrouping criteria, patients were
 15 stratified at baseline and randomized to receive an extension-oriented treatment approach
 16 with or without the addition of mechanical traction. During a 6-week period, patients
 17 received up to 12 treatment visits. Primary outcomes of pain and disability were collected
 18 at 6 weeks, 6 months, and 1 year by assessors blinded to group allocation. No significant
 19 differences in disability or pain outcomes were noted between treatment groups at any time
 20 point, nor was any interaction found between subgroup status and treatment. Authors
 21 concluded that patients with lumbar nerve root compression presenting for physical therapy
 22 can expect significant changes in disability and pain over a 6-week treatment period. There
 23 is no evidence that mechanical lumbar traction in combination with an extension-oriented
 24 treatment is superior to extension-oriented exercises alone in the management of these
 25 patients or within a predefined subgroup of patients.

26
 27 The North American Spine Society's clinical practice guideline on diagnosis and treatment
 28 of degenerative lumbar spinal stenosis (2011) noted that there is insufficient evidence to
 29 make a recommendation for or against traction, electrical stimulation or transcutaneous
 30 electrical nerve stimulation for the treatment of patients with lumbar spinal stenosis.

31
 32 According to the AHRQ publication on Non-Invasive Techniques for Low Back Pain
 33 (2016):

- 34 • For low back pain with or without radicular symptoms, a systematic review
 35 included 13 trials that found no clear differences with inconsistent effects of
 36 traction versus placebo, sham, or no treatment in pain, function, or other outcomes,
 37 though two trials reported favorable effects on pain in patients with radicular back
 38 pain (SOE: insufficient for pain and function).
- 39 • For low back pain with or without radicular symptoms, a systematic review
 40 included five trials that found no clear differences between traction versus
 41 physiotherapy versus physiotherapy alone.

- 1 • For low back pain with or without radicular symptoms, a systematic review
2 included 15 trials of traction versus other interventions that found no clear
3 difference between traction versus other active interventions in pain or function
4 (SOE: low for pain and function).
- 5 • A systematic review included five trials that found no clear differences between
6 different types of traction.
- 7 • Eleven trials of traction in a systematic review reported no adverse events or no
8 difference in risk of adverse events versus placebo or other interventions. Three
9 subsequent trials reported findings consistent with the systematic review.

10
11 According to the American College of Physician’s clinical practice guideline (2017) on
12 noninvasive treatments for acute, subacute, and chronic low back pain, evidence was
13 insufficient to determine the effectiveness of traction tables/devices. Foster et al. (2018)
14 summarizes that passive electrical or physical modalities, such as traction, interferential
15 therapy, short-wave diathermy, are generally ineffective and not recommended.

16
17 Bilgilişoy Filiz et al. (2018) compared the effects of mechanical lumbar traction either in
18 the supine or in the prone position with conventional physical therapy (PT) in patients with
19 chronic low back pain and lumbosacral nerve root involvement in terms of disability, pain,
20 and mobility. Participants ($N = 125$) were randomly assigned to receive 15 sessions of PT
21 with additional mechanical lumbar traction either in the supine position (supine traction
22 group) or in the prone position (prone traction group) or only PT without traction (PT only
23 group). Patients were assessed at baseline and at the end of the PT sessions in terms of
24 disability, pain, and mobility. Disability was assessed using the modified Oswestry
25 Disability Index; pain was assessed using a visual analog scale, and lumbar mobility was
26 assessed using the modified lumbar Schober test. One hundred eighteen patients completed
27 the trial. All groups improved significantly for all outcomes. In the between-group analysis,
28 improvements of Oswestry Disability Index and visual analog scale were found
29 significantly better in the prone traction group compared with the PT only group. Authors
30 concluded that the addition of traction in the prone position to other modalities resulted in
31 larger immediate improvements in terms of pain and disability, and the results suggest that
32 when using traction, prone traction might be first choice. Chou et al. (2018) states that
33 clinicians should not offer traction for neck and back pain given lack of effectiveness.

34
35 Kuligowski et al. (2019) completed a study that enrolled 37 people aged 22-35. The
36 subjects underwent radiological evaluation (MRI), which constituted the basis for
37 assigning them to one of two groups: a protrusion group (PRO) or an extrusion group
38 (EXT). During the experiment, the patient was in the supine position while the therapist
39 administered three-dimensional traction using a manual therapy belt. Authors concluded
40 the following: 1.) The type of intervertebral disc damage determines the functional status
41 of young people with degenerative disc disease. 2.) The study demonstrated and confirmed
42 a positive effect of traction on the functional status of subjects with lumbar disc herniation.

1 3.) Traction techniques are safe and can be successfully used in the treatment of lumbar
2 disc herniation as noted on MRI.

3
4 Hirayama et al. (2019) sought to develop a clinical prediction rule (CPR) that predicts
5 treatment responses to mechanical lumbar traction (MLT) among patients with lumbar disc
6 herniation (LDH). The subjects included 103 patients diagnosed with LDH for which they
7 underwent conservative therapy. The subjects received MLT for 2 weeks, and the
8 application of any other medication was left at the discretion of the attending physician.
9 The patients whose ODI after 2 weeks of treatment improved by $\geq 50\%$ of that at the initial
10 evaluation were defined as responders. Of the 103 subjects, 24 were responders, and the
11 five predictors selected for the CPR were limited lumbar extension range of motion, low-
12 level fear-avoidance beliefs regarding work, no segmental hypomobility in the lumbar
13 spine, short duration of symptoms, and sudden onset of symptoms. For the patients with at
14 least three of the five predictors, the probability of their ODI greatly improving increased
15 from 23.3% to 48.7% compared with the patients without these predictors (positive
16 likelihood ratio, 3.13).

17
18 Cheng et al. (2020) evaluated the effectiveness of traction in improving low back pain,
19 functional outcome, and disk morphology in patients with herniated intervertebral disks.
20 Seven articles involving 403 participants were included for quantitative analysis.
21 Compared with the control group, the participants in the traction group showed
22 significantly greater improvements in pain and function in the short term, with standard
23 mean differences of 0.44 (95% confidence interval (CI): 0.11-0.77) and 0.42 (95% CI:
24 0.08-0.76), respectively. The standard mean differences were not significant to support the
25 long-term effects on pain and function, nor the effects on herniated disk size. Authors
26 concluded that compared with sham or no traction, lumbar traction exhibited significantly
27 more pain reduction and functional improvements in the short term, but not in the long
28 term. There is insufficient evidence to support the effect of lumbar traction on herniated
29 disk size reduction.

30
31 Vanti et al. (2020) evaluated the effects of different types of traction added to or compared
32 with conservative treatments on pain and disability for patients with lumbar radiculopathy
33 (LR) in a systematic review and meta-analysis. Eight studies met the inclusion criteria, and
34 5 were meta-analyzed. Meta-analyses of results from low-quality studies indicated that
35 supine mechanical traction added to physical therapist treatments had significant effects on
36 pain and disability. Analyses of results from high-quality studies of prone mechanical
37 traction added to physical therapist intervention for pain and disability were not significant.
38 These results were also evident at short-term follow-up (up to 3 months after intervention).
39 Authors concluded that the literature suggests that, for pain and disability in LR, there is
40 short-term effectiveness of supine mechanical traction when added to physical therapist
41 intervention.

1 George et al. (2021) stated that physical therapists should not use mechanical traction for
2 patients with chronic LBP with leg pain, based on the lack of benefit when added to other
3 interventions in an updated clinical practice guideline.

4
5 Farrokhi et al. (2024) explored associations between the utilization of active, passive, and
6 manual therapy interventions for low back pain (LBP) with 1-year escalation-of-care
7 events, including opioid prescriptions, spinal injections, specialty care visits, and
8 hospitalizations. This was a retrospective cohort study of 4827 patients identified via the
9 Military Health System Data Repository who received physical therapist care for LBP in
10 4 outpatient clinics between January 1, 2015, and January 1, 2018. One-year escalation-of-
11 care events were evaluated based on type of physical therapist interventions (i.e., active,
12 passive, or manual therapy) received using adjusted odds ratios. Most patients (89.9%)
13 received active interventions. Patients with 10% higher proportion of visits that included
14 at least 1 passive intervention had a 3% to 6% higher likelihood of 1-year escalation-of-
15 care events. Similarly, with 10% higher proportion of passive to active interventions used
16 during the course of care, there was a 5% to 11% higher likelihood of 1-year escalation-of-
17 care events. When compared to patients who received active interventions only, the
18 likelihood of incurring 1-year escalation-of-care events was 50% to 220% higher for those
19 who received mechanical traction and 2 or more different passive interventions, but lower
20 by 50% for patients who received manual therapy. Authors concluded that greater use of
21 passive interventions for LBP was associated with elevated odds of 1-year escalation-of-
22 care events. In addition, the use of specific passive interventions such as mechanical
23 traction in conjunction with active interventions resulted in suboptimal escalation-of-care
24 events, while the use of manual therapy was associated with more favorable downstream
25 health care outcomes.

26
27 Elgendy et al. (2025) compared the effectiveness of core stability exercises and intermittent
28 lumbar traction on functional disability and pain intensity in patients with nonspecific
29 chronic low back pain. Sixty-six male subjects with nonspecific chronic low back pain
30 participated in the study. Their age ranged from 18 to 60 years, and their body mass index
31 was normal, ranging from 18.9 to 24.9 kg/m². They were randomly assigned to three
32 groups of equal numbers. Group (A) received core stability exercises, TENS, and hot
33 packs. Group (B) received intermittent traction, TENS, and hot packs. Group (C) received
34 TENS and hot packs only. The treatment was applied for 5 weeks. Low back pain was
35 measured using the Visual Analog Scale (VAS) and the Oswestry questionnaire before and
36 after the interventions. The intervention significantly improved outcomes for Group A
37 (Core Stability Exercise) and Group B (Intermittent Lumbar Traction). Group A showed a
38 significant reduction in pain and disability compared to others. Group B also improved,
39 although to a lesser extent. The control group (Group C) showed no significant changes.
40 Between-group comparisons highlighted Group A's superior results. Authors concluded
41 that core stability exercises are more effective than intermittent traction in decreasing low

1 back pain and reducing Oswestry disability questionnaire scores in adults with nonspecific
2 chronic low back pain.

4 **PRACTITIONER SCOPE AND TRAINING**

5 Practitioners should practice only in the areas in which they are competent based on their
6 education, training, and experience. Levels of education, experience, and proficiency may
7 vary among individual practitioners. It is ethically and legally incumbent on a practitioner
8 to determine where they have the knowledge and skills necessary to perform such services
9 and whether the services are within their scope of practice.

10
11 It is best practice for the practitioner to appropriately render services to a member only if
12 they are trained, equally skilled, and adequately competent to deliver a service compared
13 to others trained to perform the same procedure. If the service would be most competently
14 delivered by another health care practitioner who has more skill and training, it would be
15 best practice to refer the member to the more expert practitioner.

16
17 Best practice can be defined as a clinical, scientific, or professional technique, method, or
18 process that is typically evidence-based and consensus driven and is recognized by a
19 majority of professionals in a particular field as more effective at delivering a particular
20 outcome than any other practice (Joint Commission International Accreditation Standards
21 for Hospitals, 2020).

22
23 Depending on the practitioner’s scope of practice, training, and experience, a member’s
24 condition and/or symptoms during examination or the course of treatment may indicate the
25 need for referral to another practitioner or even emergency care. In such cases it is prudent
26 for the practitioner to refer the member for appropriate co-management (e.g., to their
27 primary care physician) or if immediate emergency care is warranted, to contact 911 as
28 appropriate. See the *Managing Medical Emergencies (CPG 159 – S)* clinical practices
29 guideline for information.

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