

<b>Policy Number</b>	<b>THE803.016</b>
<b>Policy Effective Date</b>	<b>5/7/2026</b>

# Manipulation Under Anesthesia

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<b>Related Policies (if applicable)</b>
None

## Disclaimer

**Carefully check state regulations and/or the member contract.**  
 Each benefit plan, summary plan description or contract defines which services are covered, which services are excluded, and which services are subject to dollar caps or other limitations, conditions or exclusions. Members and their providers have the responsibility for consulting the member's benefit plan, summary plan description or contract to determine if there are any exclusions or other benefit limitations applicable to this service or supply. **If there is a discrepancy between a Medical Policy and a member's benefit plan, summary plan description or contract, the benefit plan, summary plan description or contract will govern.**

## Legislative Mandates

**EXCEPTION: For Illinois only:** Illinois Public Act 103-0458 [Insurance Code 215 ILCS 5/356z.61] (HB3809 Impaired Children) states all group or individual fully insured PPO, HMO, POS plans amended, delivered, issued, or renewed on or after Jan. 1, 2025 shall provide coverage for therapy, diagnostic testing, and equipment necessary to increase quality of life for children who have been clinically or genetically diagnosed with any disease, syndrome, or disorder that includes low tone neuromuscular impairment, neurological impairment, or cognitive impairment.

## Coverage

Spinal manipulation and manipulation of other joints performed during the procedure (e.g., hip joint) with the individual under anesthesia, spinal manipulation under joint anesthesia, and spinal manipulation after epidural anesthesia and corticosteroid injection **are considered experimental, investigational and/or unproven** for treatment of:

1. Chronic spinal pain (cranial, cervical, thoracic, lumbar), and
2. Chronic sacroiliac and pelvic pain.

Spinal manipulation and manipulation of other joints under anesthesia involving serial treatment sessions **is considered experimental, investigational and/or unproven**.

Manipulation under anesthesia involving multiple body joints **is considered experimental, investigational and/or unproven** for the treatment of chronic pain.

## Policy Guidelines

This policy does not address manipulation under anesthesia for fractures, completely dislocated joints, adhesive capsulitis (e.g., frozen shoulder), and/or fibrosis of a joint that may occur following total joint replacement.

## Description

Manipulation under anesthesia consists of a series of mobilization, stretching, and traction procedures performed while the individual is sedated (usually with general anesthesia or moderate sedation).

### Manipulation Under Anesthesia

Manipulation is intended to break up fibrous and scar tissue to relieve pain and improve range of motion. (1) Anesthesia or sedation is used to reduce pain, spasm, and reflex muscle guarding that may interfere with the delivery of therapies and to allow the therapist to break up joint and soft tissue adhesions with less force than would be required to overcome patient resistance or apprehension. Manipulation under anesthesia is generally performed with an anesthesiologist in attendance. Manipulation under anesthesia is an accepted treatment for isolated joint conditions, such as arthrofibrosis of the knee and adhesive capsulitis. It is also used to reduce fractures (e.g., vertebral, long bones) and dislocations.

Manipulation under anesthesia has been proposed as a treatment modality for acute and chronic pain conditions, particularly of the spine, when standard care, including manipulation, and other conservative measures have failed. Manipulation under

anesthesia of the spine has been used in various forms since the 1930s. Complications from general anesthesia and forceful long-lever, high-amplitude nonspecific manipulation procedures led to decreased use of the procedure in favor of other therapies. Manipulation under anesthesia was modified and revived in the 1990s. This revival has been attributed to increased interest in spinal manipulative therapy and the advent of safer, shorter-acting anesthesia agents used for conscious sedation.

#### Manipulation Under Anesthesia Administration

Manipulation under anesthesia of the spine is described as follows: after sedation, a series of mobilization, stretching, and traction procedures to the spine and lower extremities are performed and may include passive stretching of the gluteal and hamstring muscles with straight-leg raise, hip capsule stretching and mobilization, lumbosacral traction, and stretching of the lateral abdominal and paraspinal muscles. (1) After the stretching and traction procedures, spinal manipulative therapy is delivered with high-velocity, short-amplitude thrust applied to a spinous process by hand, while the upper torso and lower extremities are stabilized. Spinal manipulative therapy may also be applied to the thoracolumbar or cervical area when necessary to address low back pain.

Manipulation under anesthesia takes 15 to 20 minutes, and after recovery from anesthesia, the patient is discharged with instructions to remain active and use heat or ice for short-term analgesic control. Some practitioners recommend performing the procedure on 3 or more consecutive days for best results. Care after manipulation under anesthesia may include 4 to 8 weeks of active rehabilitation with manual therapy, including spinal manipulative therapy and other modalities. Manipulation has also been performed after injection of local anesthetic into lumbar zygapophyseal (facet) and/or sacroiliac joints under fluoroscopic guidance (manipulation under joint anesthesia/analgesia) and after epidural injection of corticosteroid and local anesthetic (manipulation postepidural injection). Spinal manipulation under anesthesia has also been combined with other joint manipulation during multiple sessions. Together, these therapies may be referred to as medicine-assisted manipulation.

This policy does not address manipulation under anesthesia for fractures, completely dislocated joints, adhesive capsulitis (e.g., frozen shoulder), and/or fibrosis of a joint that may occur following total joint replacement.

#### **Regulatory Status**

Manipulative procedures are not subject to regulation by the U.S. Food and Drug Administration.

## Rationale

### Manipulation Under Anesthesia

The purpose of manipulation under anesthesia is to provide a treatment option that is an alternative to or an improvement on existing therapies, such as conservative management, in individuals with chronic spinal, sacroiliac, or pelvic pain.

Manipulation under anesthesia consists of a series of mobilization, stretching, and traction procedures performed while the patient is sedated (usually with general anesthesia or moderate sedation). Manipulation under anesthesia takes 15 to 20 minutes, and after recovery from anesthesia, the patient is discharged with instructions to remain active and use heat or ice for short-term analgesic control.

The existing literature evaluating manipulation under anesthesia as a treatment for chronic spinal, sacroiliac, or pelvic pain has varying lengths of follow-up, ranging from 2 weeks to 6 months. While studies described below all reported at least 1 outcome of interest, longer follow-up was necessary to fully observe outcomes. Therefore, 6 months of follow-up is considered necessary to demonstrate efficacy.

Table 1 summarizes the patient-reported outcome measures described in this policy.

**Table 1. Patient Self-Administered Outcome Measure Tools**

Name	Description	Scoring	MCID
Numeric Pain Scale (2)	Numbered scale by which patients rate their pain, similar to VAS	0-10 scale: <ul style="list-style-type: none"><li>10=excruciating pain</li><li>0=no pain</li></ul>	Reduction of $\geq 2$ points ( $\approx 30\%$ ) to be clinically important
Roland-Morris Disability Questionnaire (3)	24 questions that measure low back pain-related disability	"Yes" answers are totaled to determine disability (1-24) Score of $\geq 14$ represents significant disability	Change of $\geq 4$ points required for clinically applicable change to be measured accurately
Bournemouth Questionnaire (4)	7-question, multi-dimensional tool to assess outcome of care in a routine clinical setting	Each question rated on a numeric rating scale from 0 to 10: <ul style="list-style-type: none"><li>0=much better</li><li>5=no change</li><li>10=much worse</li></ul>	Percentage improvement of 47% in back pain and 34% in neck pain

	<p>Takes into account cognitive and affective aspects of pain</p> <p>Two versions: low back pain and nonspecific neck pain</p>	<p>Scores are totaled, for minimum of 0 and maximum of 70</p>	
<p>Patient's Global Impression of Change (4)</p>	<p>7-point scale of how a patient perceives the efficacy of treatment, a rating of overall improvement from baseline</p>	<p>Scale of 1 to 7:</p> <ul style="list-style-type: none"> <li>• 1=no change or condition is worse</li> <li>• 2=almost the same</li> <li>• 3=a little better, but no noticeable change</li> <li>• 4=somewhat better, but no real difference</li> <li>• 5=moderately better, slight noticeable change</li> <li>• 6=better, definite improvement with real difference</li> <li>• 7=a great deal better, considerable improvement</li> </ul>	<p>Clinically relevant improvement, response of <math>\pm 6</math></p>

MCID: minimal clinically important difference; VAS: visual analog scale.

Study Selection Criteria

Methodologically credible studies were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.

- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

Dagenais et al. (2008) conducted a comprehensive review of the history of manipulation under anesthesia or medicine-assisted manipulation and the published experimental literature. (5) The authors noted there was no research to confirm theories about a mechanism of action for these procedures and that the only RCT identified was published in 1971 when the techniques for spinal manipulation differed from those used presently. The possibility of serious complications related to manipulative force is also noted, including reported cases of cauda equina syndrome, paralysis, and vertebral fracture and dislocation; the authors state that such complications may be more likely with older techniques, but otherwise note that most reported studies do not describe safety outcomes.

#### Nonrandomized Comparative Studies

No high-quality RCTs have been identified. A comprehensive review of the literature by Digiori (2013) (6) described studies by Kohlbeck et al. (2005) (7) and Palmieri and Smoyak (2002) (3) as being the best evidence available for medicine-assisted manipulation and manipulation under anesthesia of the spine.

Kohlbeck et al. (2005) reported on a nonrandomized comparative study that included 68 patients with chronic low back pain. (7) All patients received an initial 4- to 6-week trial of spinal manipulation therapy, after which 42 patients received supplemental intervention with manipulation under anesthesia and 26 continued with spinal manipulative therapy. Low back pain and disability measures favored the manipulation under anesthesia group over the spinal manipulative therapy only group at 3 months (adjusted mean difference on a 100-point scale, 4.4 points; 95% confidence interval [CI], -2.2 to 11.0). This difference attenuated at 1 year (adjusted mean difference, 0.3 points; 95% CI, -8.6 to 9.2). The relative odds of experiencing a 10-point improvement in pain and disability favored the manipulation under anesthesia group at 3 months (odds ratio [OR], 4.1; 95% CI, 1.3 to 13.6) and 1 year (OR, 1.9; 95% CI, 0.6 to 6.5).

Palmieri and Smoyak (2002) evaluated the efficacy of self-reported questionnaires to study manipulation under anesthesia in a convenience sample of 87 subjects from 2 ambulatory surgery centers and 2 chiropractic clinics. (3) Thirty-eight patients with low back pain received manipulation under anesthesia and 49 received traditional chiropractic treatment. A numeric rating scale for pain and the Roland-Morris Disability Questionnaire were administered at baseline, after the procedure, and 4 weeks later. Average pain scale scores in the manipulation under anesthesia group decreased by 50% and by 26% in the traditional treatment group; Roland-Morris Disability Questionnaire scores decreased by 51% and 38%, respectively. Although the authors concluded that the study supported the need for large-scale studies on manipulation under anesthesia and that the assessments

were easily administered and dependable, no large-scale studies comparing manipulation under anesthesia with traditional chiropractic treatment have been identified.

### Observational Studies

Peterson et al. (2014) reported on a prospective study of 30 patients with chronic pain (17 lower back, 13 neck) who underwent a single manipulation under anesthesia session with follow-up at 2 and 4 weeks. (8) The primary outcome measure was the Patient's Global Impression of Change. At 2 weeks, 52% of the patients reported clinically relevant improvement (better or much better), with 45.5% improved at 4 weeks. There was a statistically significant reduction in numeric rating scale scores for pain at 4 weeks ( $p=.01$ ), from a mean baseline score of 4.0 to 3.5 at 2 weeks post-manipulation under anesthesia. Bournemouth Questionnaire scores improved from 24.17 to 20.38 at 2 weeks ( $p=0.008$ ) and 19.45 at 4 weeks ( $p=.001$ ). This study lacked a sham group to control for a potential placebo effect. Also, the clinical significance of improved numeric rating scale and Bournemouth Questionnaire scores is unclear, although Hurst and Bolton (2004) described the Bournemouth Questionnaire as a percentage improvement of 47% in back pain and 34% in neck pain. (4)

West et al. (1999) reported on a series of 177 patients with pain arising from the cranial, cervical, thoracic, and lumbar spine, as well as the sacroiliac and pelvic regions, who had failed conservative and surgical treatment. (9) Patients underwent 3 sequential manipulations with intravenous sedation followed by 4 to 6 weeks of spinal manipulation and therapeutic modalities; all had 6 months of follow-up. On average, visual analog scale scores improved by 62% in patients with cervical pain and by 60% in patients with lumbar pain. Dougherty et al. (2004) retrospectively reviewed outcomes of 20 cervical and 60 lumbar radiculopathy patients who underwent spinal manipulation after epidural injection. (10) After epidural injection of lidocaine (guided fluoroscopically or with computed tomography), methylprednisolone acetate flexion distraction mobilization and then high-velocity, low-amplitude spinal manipulation were delivered to the affected spinal regions. Outcome criteria were empirically defined as a significant improvement, temporary improvement, or no change. Among lumbar spine patients, 22 (37%) noted significant improvement, 25 (42%) reported temporary improvement, and 13 (22%) no change. Among patients receiving a cervical epidural injection, 10 (50%) had significant improvement, 6 (30%) had temporary relief, and 4 (20%) had no change.

Tables 2 and 3 summarize the characteristics and results, respectively, of the key observational studies.

The only study on manipulation under joint anesthesia or analgesia evaluated 4 subjects; it was reported by Dreyfuss et al. (1995). (11) Later, Michaelsen (2000) noted that joint-related manipulation under anesthesia should be viewed with "guarded optimism because its success is based solely on anecdotal experience." (12)

**Table 2. Summary of Characteristics of Key Observational Studies of Manipulation Under Anesthesia**

Study	Study Type	Country	Dates	Participants	Treatment	Follow-Up
Peterson (2014) (8)	Prospective	Switzerland	NR	Patients (N=30) with chronic pain who underwent single MUA session	MUA for those with low back pain (n=17); MUA for those with neck pain (n=13)	2 and 4 weeks
West (1999) (9)	Case series	US	July 1995- Feb 1997	177 patients with pain arising from the cranial, cervical, thoracic, and lumbar spine, as well as the sacroiliac and pelvic regions who had failed conservative and surgical treatment	Patients underwent 3 sequential manipulations with intravenous sedation followed by 4 to 6 weeks of spinal manipulation and therapeutic modalities	6 months
Dougherty (2004) (10)	Retrospective	US	Nov 1996- Nov 2000	20 cervical and 60 lumbar radiculopathy patients who underwent spinal manipulation after epidural injection. The patients ranged in age from 21-76 years old with an average age	Following epidural injection of lidocaine (guided fluoroscopically or with computed tomography), methyl-prednisolone acetate flexion distraction mobilization and high-	1 year

				of 43 years. Forty-three percent of the patients were female and 57% were male	velocity, low-amplitude spinal manipulation were delivered to the affected spinal regions	
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MUA: manipulation under anesthesia; N: number(s); NR: not reported; US: United States.

**Table 3. Summary of Results of Key Observational Studies of Manipulation under Anesthesia**

Study	Improvement as Reported by Participant	Bournemouth Questionnaire score	Patient's Global Impression of Change
<b>Peterson (2014) (8)</b>			
Baseline		24.17	
2-weeks post		20.38 (p=0.008)	
4-weeks post		19.45 (p=0.001)	
"better or much better" reported at 2 weeks post			52%
"better or much better" reported at 4 weeks post			45.5%
<b>West (1999) (9)</b>			
% of cervical patients with improvement			62%
% of lumbar patients with improvement			60%
<b>Dougherty (2004) (10)</b>			
<i>Lumbar spine patients</i>			
% noting significant improvement	22 (37%)		
% noting temporary improvement	25 (42%)		
% noting no improvement	13 (22%)		
<i>Patients receiving cervical epidural injection</i>			
% noting significant improvement	10 (50%)		
% noting temporary improvement	6 (30%)		
% noting no improvement	4 (20%)		

## Summary of Evidence

For individuals who have chronic spinal, sacroiliac, or pelvic pain who receive manipulation under anesthesia, the evidence includes case series, observational studies, and nonrandomized comparative studies. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. Scientific evidence on spinal manipulation under anesthesia, spinal manipulation with joint anesthesia, and spinal manipulation after epidural anesthesia and corticosteroid injection is very limited. No randomized controlled trials have been identified. Evidence on the efficacy of manipulation under anesthesia over several sessions or for multiple joints is also lacking. Safety outcomes in these settings are poorly described. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

## Practice Guidelines and Position Statements

### American Association of Manipulation Under Anesthesia Providers

In 2014, The American Association of Manipulation Under Anesthesia Providers published consensus-based guidelines for the practice and performance of manipulation under anesthesia. (13) The guidelines included patient selection criteria (see below), establishing medical necessity, frequency and follow-up procedures, parameters for determining manipulation under anesthesia progress, general post-manipulation under anesthesia therapy, and safety. The guidelines recommended 3 consecutive days of treatment, based on the premise that serial procedures allow a gentler yet effective treatment plan with better control of biomechanical force. The guidelines also recommended follow-up therapy without anesthesia over 8 weeks after manipulation under anesthesia that included all fibrosis release and manipulative procedures performed during the manipulation under anesthesia procedure to help prevent re-adhesion.

Patient selection criteria include, but are not limited to, the following:

- "The patient has undergone an adequate trial of appropriate care...and continues to experience intractable pain, interference to activities of daily living, and/or biomechanical dysfunction."
- "Sufficient care has been rendered prior to recommending manipulation under anesthesia. A sufficient time period is usually considered a minimum of 4 to 8 weeks, but exceptions may apply depending on the patient's individual needs..."
- "Physical medicine procedures have been utilized in a clinical setting during the 6-to-8-week period prior to recommending manipulation under anesthesia."
- "Diagnosed conditions must fall within the recognized categories of conditions responsive to manipulation under anesthesia. The following disorders are classified as acceptable conditions for utilization of manipulation under anesthesia:"
  1. "Patients for whom manipulation of the spine or other articulations is the treatment of choice; however, the patient's pain threshold inhibits the effectiveness of conservative manipulation."

2. "Patients for whom manipulation of the spine or other articulations is the treatment of choice; however, due to the extent of the injury mechanism, conservative manipulation has been minimally effective...and a greater degree of movement of the affected joint(s) is needed to obtain patient progress."
3. "Patients for whom manipulation of the spine or other articulations is the treatment of choice by the doctor; however, due to the chronicity of the problem, and/or the fibrous tissue adhesions present, in-office manipulation has been incomplete and the plateau in the patient's improvement is unsatisfactory."
4. "When the patient is considered for surgical intervention, manipulation under anesthesia is an alternative and/or an interim treatment and may be used as a therapeutic and/or diagnostic tool in the overall consideration of the patient's condition."
5. "When there are no better treatment options available for the patient in the opinions of the treating doctor and patient." (13)

### Ongoing and Unpublished Clinical Trials

There were no ongoing or unpublished trials regarding this policy as of February 2025.

### Coding

Procedure codes on Medical Policy documents are included **only** as a general reference tool for each policy. **They may not be all-inclusive.**

The presence or absence of procedure, service, supply, or device codes in a Medical Policy document has no relevance for determination of benefit coverage for members or reimbursement for providers. **Only the written coverage position in a Medical Policy should be used for such determinations.**

Benefit coverage determinations based on written Medical Policy coverage positions must include review of the member's benefit contract or Summary Plan Description (SPD) for defined coverage vs. non-coverage, benefit exclusions, and benefit limitations such as dollar or duration caps.

<b>CPT Codes</b>	00640, 21073, 22505, 23700, 24300, 26340, 27275, 27570, 27860
<b>HCPCS Codes</b>	None

\*Current Procedural Terminology (CPT®) ©2025 American Medical Association: Chicago, IL.

## References

1. Kohlbeck FJ, Haldeman S. Medication-assisted spinal manipulation. *Spine J.* 2002; 2(4):288-302. PMID 14589481
2. Farrar JT, Young JP, LaMoreaux L, et al. Clinical importance of changes in chronic pain intensity measured on an 11-point numerical pain rating scale. *Pain.* Nov 2001; 94(2):149-158. PMID 11690728
3. Palmieri NF, Smoyak S. Chronic low back pain: a study of the effects of manipulation under anesthesia. *J Manipulative Physiol Ther.* Oct. 2002; 25(8):E8-E17. PMID 12381983
4. Hurst H, Bolton J. Assessing the clinical significance of change scores recorded on subjective outcome measures. *J Manipulative Physiol Ther.* Jan. 2004; 27(1):26-35. PMID 14739871
5. Dagenais S, Mayer J, Wooley JR, et al. Evidence-informed management of chronic low back pain with medicine-assisted manipulation. *Spine J.* 2008; 8(1):142-149. PMID 18164462
6. Digiorgi D. Spinal manipulation under anesthesia: a narrative review of the literature and commentary. *Chiropr Man Therap.* May 14, 2013; 21(1):14. PMID 23672974
7. Kohlbeck FJ, Haldeman S, Hurwitz EL, et al. Supplemental care with medication-assisted manipulation versus spinal manipulation therapy alone for patients with chronic low back pain. *J Manipulative Physiol Ther.* May 2005; 28(4):245-252. PMID 15883577
8. Peterson CK, Humphreys BK, Vollenweider R, et al. Outcomes for chronic neck and low back pain patients after manipulation under anesthesia: a prospective cohort study. *J Manipulative Physiol Ther.* 2014; 37(6):377-382. PMID 24998720
9. West DT, Mathews RS, Miller MR, et al. Effective management of spinal pain in one hundred seventy-seven patients evaluated for manipulation under anesthesia. *J Manipulative Physiol Ther.* June 1999; 22(5):299-308. PMID 10395432
10. Dougherty P, Bajwa S, Burke J, et al. Spinal manipulation postepidural injection for lumbar and cervical radiculopathy: a retrospective case series. *J Manipulative Physiol Ther.* Sep 2004; 27(7):449-456. PMID 15389176
11. Dreyfuss P, Michaelsen M, Horne M. MUJA: manipulation under joint anesthesia/analgesia: a treatment approach for recalcitrant low back pain of synovial joint origin. *J Manipulative Physiol Ther.* Oct. 1995; 18(8):537-546. PMID 8583177
12. Michaelsen MR. Manipulation under joint anesthesia/analgesia: a proposed interdisciplinary treatment approach for recalcitrant spinal axis pain of synovial joint origin. *J Manipulative Physiol Ther.* Feb 2000; 23(2):127-129. PMID 10714542
13. Gordon R, Cremata E, Hawk C. Guidelines for the practice and performance of manipulation under anesthesia. *Chiropr Man Therap.* Feb. 3, 2014; 22(1):7. PMID 24490957

## Centers for Medicare & Medicaid Services

The information contained in this section is for informational purposes only. HCSC makes no representation as to the accuracy of this information. It is not to be used for claims adjudication for HCSC Plans.

The Centers for Medicare & Medicaid Services does not have a national Medicare coverage position. Coverage may be subject to local carrier discretion.

A national coverage position for Medicare may have been developed since this medical policy document was written. See Medicare's National Coverage at [cms.hhs.gov](https://www.cms.hhs.gov).

Policy History/Revision	
Date	Description of Change
5/7/2026	New medical document. Spinal manipulation and manipulation of other joints performed during the procedure (e.g., hip joint) with the individual under anesthesia, spinal manipulation under joint anesthesia, and spinal manipulation after epidural anesthesia and corticosteroid injection are considered experimental, investigational and/or unproven for treatment of: Chronic spinal pain (cranial, cervical, thoracic, lumbar), and chronic sacroiliac and pelvic pain. Spinal manipulation and manipulation of other joints under anesthesia involving serial treatment sessions is considered experimental, investigational and/or unproven. Manipulation under anesthesia involving multiple body joints is considered experimental, investigational and/or unproven for the treatment of chronic pain.