# APPENDIX to Spinal Manipulation under Anesthesia Policy

## Prior Authorization Requirements

This service (or procedure) is considered **investigational** in all instances. If you would like to submit additional information please forward to the Prior Authorization Department.

Within five days before the actual date of service, the Provider MUST confirm with Blue Shield that the member's health plan coverage is still in effect. Blue Shield reserves the right to revoke an authorization prior to services being rendered based on cancellation of the member's eligibility. Final determination of benefits will be made after review of the claim for limitations or exclusions.

Questions regarding the applicability of this policy should also be directed to the Prior Authorization Department. Please call 1-800-541-6652 or visit the Provider Portal www.blueshieldca.com/provider.

## Evidence Basis for the Policy

### Rationale

Spinal manipulation under anesthesia (MUA) has been proposed as a treatment modality for acute and chronic pain conditions, particularly of the spinal region, when standard care, including manipulation, and other conservative measures have been unsuccessful. 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 non-specific manipulation procedures resulted in decreased use of the procedure in favor of other therapies. Spinal MUA was modified and revived in the 1990s. This revival is attributed to increased interest in spinal manipulative therapy and the advent of safer, shorter acting anesthesia agents used for conscious sedation.

Spinal MUA is described as follows:

- Necessary depth of sedation is achieved
- A series of mobilization, stretching, and traction procedures to the spine and lower extremities is performed
- This may include passive stretching of the gluteal and hamstring muscles with:
    - Straight leg raise
    - Hip capsule stretching and mobilization
    - Lumbosacral traction
    - Stretching of the lateral abdominal and paraspinal muscles

After the stretching and traction procedures, spinal manipulative therapy (SMT) 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 manipulation therapy may also be applied to the thoracolumbar or cervical area if considered necessary to address the low back pain. The MUA 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 three or more consecutive days for best results. Care after MUA may include four to eight weeks of active rehabilitation with manual therapy, including SMT and other modalities. Manipulation has also been performed after injection of local anesthetic into lumbar zygapophyseal and/or sacroiliac joints under fluoroscopic guidance and after epidural injection of corticosteroid and local anesthetic. Spinal manipulation under anesthesia has also been combined with other joint manipulation during multiple sessions (Dagenais et al., 2008).

**Review of Literature**

Randomized, placebo controlled trials are considered particularly important when assessing treatment of low back pain, to control not only for the expected placebo effect but to also control for the variable natural history of low back pain, which may resolve with conservative treatment alone. Dagenais et al. (2008) performed a comprehensive review of the history of manipulation under anesthesia (MUA) and other published experimental literature. The author noted the literature does not confirm theories about a mechanism of action for these procedures. The only randomized, controlled trial identified was published in 1971 when the techniques for spinal manipulation were different from those used at the present time.

West et al. (2009) 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. Patients underwent three sequential manipulations with intravenous (IV) sedation followed by four to six weeks of spinal manipulation and therapeutic modalities; all had six months of follow up. On average, visual analogue scale (VAS) ratings improved by 62% in patients with cervical pain and 60% in patients with lumbar pain.

Kohlbeck et al. (2005) carried out a prospective cohort study of 68 patients with chronic low back pain. All patients received an initial four to six week trial of SMT, after which 42 patients received supplemental intervention with MUA and the remaining 26 patients continued with SMT. Low back pain and disability measures favored the MUA group over the SMT only group at three months (adjusted mean difference of 4.4 points on a 100 point scale, 95% confidence interval [CI]: -2.2 to 11.0). This difference attenuated at one year (adjusted mean difference of 0.3 points, 95% CI: 9.2).

In 2002, Palmieri and Smoyak evaluated the efficacy of using self reported questionnaires to study MUA using a convenience sample of 87 subjects in two ambulatory surgery centers and two chiropractic clinics. Thirty-eight patients with low back pain received MUA and 49 received traditional chiropractic treatment. A numeric pain scale and Roland Morris Questionnaire were administered at baseline, after the procedure, and four weeks later. Average pain scale scores in the MUA group decreased by 50% versus 26% in the traditional treatment group and Roland Morris Questionnaire scores decreased by 51% and 38%, respectively. The authors concluded

this study supported the need for large scale studies on MUA and that the assessments are easily administered and dependable.

Dougherty et al. (2004) retrospectively reviewed outcomes of 20 cervical and 60 lumbar radiculopathy patients who underwent spinal manipulation post epidural injection (MUESI). 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 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. Patients receiving cervical epidural injection reported the following:

- Ten (50%) experienced significant improvement
- Six (30%) experienced temporary relief
- Four (20%) experienced no change

The authors noted that this was the first report of the use of spinal manipulation post epidural injection in the cervical spine.

The one study of manipulation under joint anesthesia/analgesia (MUJA) found in the literature search had only four subjects. A paper published by Michaelsen (2000) advised that MUJA should be viewed with “guarded optimism because its success is based solely on anecdotal experience”.

**Summary**

In summary, the scientific evidence regarding spinal MUA, spinal MUJA, and MUESI is limited to observational case series and non-randomized comparative studies. Evidence regarding the efficacy of MUA over several sessions or for multiple joints is also lacking. Evidence is insufficient to determine whether MUA improves health outcomes; thus, it is considered investigational.

# Benefit Application

Benefit determinations should be based in all cases on the applicable contract language. To the extent there are any conflicts between these guidelines and the contract language, the contract language will control. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

Some state or federal mandates (e.g., Federal Employee Program (FEP)) prohibit Plans from denying Food and Drug Administration (FDA) - approved technologies as investigational. In these instances, plans may have to consider the coverage eligibility of FDA-approved technologies on the basis of medical necessity alone.

*This Policy relates only to the services or supplies described herein. Benefits may vary according to benefit design; therefore, contract language should be reviewed before applying the terms of the Policy. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement.*

| Type | Number | Description |
|---|---|---|
| **CPT** | 00640 | Anesthesia for manipulation of the spine or for closed procedures on the cervical, thoracic or lumbar spine |
| | 22505 | Manipulation of spine requiring anesthesia, any region |
| **HCPC** | None | |
| | | |
| **ICD9 Procedure** | None | |
| | | |
| | | |
| **ICD9 Diagnosis** | All Diagnoses | |
| | | |
| | | |
| **Place of Service** | All Places of Service | |

## Tables

N/A

## Definitions

**Subluxation -** A condition in which the bony surfaces of a joint no longer face each other exactly but remain partially aligned (also known as partial or incomplete dislocation).

**Dislocation -** A displacement of a bone from its normal position, classified as either complete or incomplete.

## Index / Cross Reference of Related BSC Medical Policies

The following Medical Policies share diagnoses and/or are equivalent BSC Medical Policies:

N/A

# Key / Related Searchable Words

- Chiropractic manipulation under anesthesia

# References


- Blue Cross Blue Shield Association. Medical Policy Reference Manual, No. 8.01.40 (October 2011).
- 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.
- Dougherty P, Bajwa S, Burkke J et al. Spinal manipulation post epidural injection for lumbar and cervical radiculopathy: A retrospective case series. J Manipulative Physiol Ther. 2004; 27(7):449-456.
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- Palmieri NF, Smoyak S. Chronic low back pain: A study of the effects of manipulation under anesthesia. J Manipulative Physiol Ther. 2002; 25(8):E8-E17.
- 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.1999; 22(5):299-308.


## Policy History

This section provides a chronological history of the activities, updates and changes that have occurred with this Medical Policy.

| Effective Date | Action | Reason |
|---|---|---|
| 2/26/1997 | New Policy Adoption | Medical Policy Committee |
| 4/1/2001 | Policy Review Policy unchanged | Medical Policy Committee |

| Effective Date | Action | Reason |
|---|---|---|
| 6/26/2009 | Policy Revision and Title change. Policy title changed from Chiropractic Manipulation Under Anesthesia to Spinal Manipulation Under Anesthesia | Medical Policy Committee |
| 6/20/2012 | Policy Review | Medical Policy Committee |
| 7/6/2012 | Policy revision without position change | Medical Policy Committee |

The materials provided to you are guidelines used by this plan to authorize, modify, or deny care for persons with similar illness or conditions. Specific care and treatment may vary depending on individual need and the benefits covered under your contract. These Policies are subject to change as new information becomes available.

Click here to view the policy statement for this policy

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