



Cigna Medical Coverage Policy

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Subject **Manipulation Under Anesthesia**

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INSTRUCTIONS FOR USE

The following Coverage Policy applies to health benefit plans administered by Cigna companies. Coverage Policies are intended to provide guidance in interpreting certain **standard** Cigna benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document **always supersedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations. Proprietary information of Cigna. Copyright ©2014 Cigna

Coverage Policy

Cigna covers a single treatment of manipulation under anesthesia* (MUA) as medically necessary for ANY of the following indications:

- adhesive capsulitis (i.e., frozen shoulder) when there is failure of conservative medical management, including medications with or without articular injections, home exercise programs and physical therapy (Common Procedural Terminology [CPT] code 23700)
- post-traumatic or postoperative arthrofibrosis of the knee (e.g., total knee replacement, anterior cruciate ligament repair) (CPT code 27570) when there is failure of conservative medical management, including exercise and physical therapy
- reduction of a displaced fracture (e.g., vertebral, long bones) (e.g., CPT code 22505, 25675)
- reduction of acute/traumatic dislocation (e.g., vertebral, perched cervical facet) (e.g., CPT code 22505)
- chronic contracture of upper or lower extremity joint (e.g., fixed contracture from a neuromuscular condition) when there is failure of conservative medical management including range of motion exercise programs and physical therapy

***MUA provided for these indications consists of a SINGLE treatment session. Repeat treatment sessions involving a previously treated bone or joint are subject to medical necessity review. Furthermore, serial treatment sessions (i.e., treatments of the same bone/joint provided subsequently over a period of time) are not in accordance with generally accepted standards of medical practice and are therefore not medically necessary.**

Cigna does not cover MUA for any other indication, including the treatment of acute or chronic pain conditions, involving one or more of the following joints, because it is considered experimental, investigational or unproven (This list may not be all inclusive):

- ankle (CPT code 27860)
 - cervical, thoracic or lumbar spine (e.g., CPT code 22505)
 - elbow (CPT code 24300)
 - finger (e.g., CPT code 26340, 26675)
 - hip (CPT code 27275)
 - pelvis, sacroiliac (CPT code 27194)
 - temporomandibular (CPT code 21073)
 - thumb (CPT code 26340)
 - toe (CPT code 28635, 28665)
 - wrist (CPT code 25259)
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General Background

Manipulation under anesthesia (MUA) is aimed at reducing pain and improving range of motion and is a treatment modality that consists of manipulation and stretching procedures performed while an individual receives anesthesia (e.g., conscious sedation, general anesthesia). A chiropractor, osteopathic physician or medical physician may perform this type of manipulation with an anesthesiologist in attendance.

MUA is considered a safe and effective form of treatment for some joint conditions, such as arthrofibrosis of the knee and adhesive capsulitis. It is also utilized for treatment of fractures (e.g., vertebral, long bones) and dislocations. Although there is limited evidence in the peer-reviewed medical literature supporting safety and efficacy for the treatment of pain conditions, MUA has been recommended as a treatment modality for acute and chronic pain conditions, particularly of the spinal region, when standard chiropractic care and other conservative measures have proved unsuccessful.

An individual's protective reflex mechanism is absent under anesthesia and proponents contend it is less difficult to separate and move the joint when the reflex is absent. During MUA, the chiropractor or physician performs a combination of short manipulations, passive stretches and maneuvers to break up fibrous and scar tissue around the spine and surrounding joint areas. This manipulation typically includes a high velocity thrust (i.e., a technique that adjusts the joints rapidly), which may be followed by a popping or snapping sound.

In a less frequently used technique, manipulation under anesthesia (MUA) may be accompanied by fluoroscopically-guided intra-articular injections with corticosteroid agents to reduce inflammation. This procedure is referred to as manipulation under joint anesthesia/analgesia (MUJA). Manipulation under epidural anesthesia (MUEA) employs an epidural, segmental anesthetic, often with simultaneous epidural steroid injections, followed by spinal manipulation therapy. Some therapies may combine manipulation with cortisone injections into paraspinal tissues and proliferant injections. Other forms of manipulation under anesthesia include spinal manipulation under anesthesia (SMUA) performed with or without manipulation of other joints and total body joint manipulation.

MUA is considered safe and effective and is a well-established method of treatment for conditions such as adhesive capsulitis of the shoulder, arthrofibrosis of the knee, and some fractures, dislocations and contractures. When performed for these specific conditions, MUA generally requires a single session of treatment, most often performed unilaterally, involving a single joint. Data supporting the need for, and clinical efficacy of multiple, repeat MUA treatment sessions for these specific conditions, is lacking in the peer-reviewed published medical literature.

Adhesive Capsulitis/Frozen Shoulder

Adhesive capsulitis, also referred to as frozen shoulder, is used to describe a painful restriction (both passive and active) of shoulder motion in an individual whose radiographs are typically normal. It may also be referred to as pericapsulitis and occurs in approximately 2-5% of the general population. Some authors contend the condition results from synovial inflammation with subsequent reactive capsular fibrosis. Early stages are treated

with steroid injections and home therapy. For refractory cases, more aggressive treatment involves manipulation of the shoulder joint under anesthesia or an arthroscopic capsular release (Griffen, 2003). Manipulating the joint under anesthesia breaks up the adhesions surrounding the joint and stretches the fibrotic tissue thereby increasing joint motion and reducing pain. Evidence in the peer-reviewed published scientific literature, including textbook sources, supports MUA is a well-established method of treatment for refractory cases of adhesive capsulitis of the shoulder (Vastamaki, Vastamaki, 2013; Maund, et al., 2012; Mercier, 2007; Kivimaki, et al., 2007; Wang, et al., 2007; Sheridan and Hannafin, 2006; Dias, et al., 2005; Farrell, et al., 2005; Hamdan and Essa, 2003; Nirschl and Willet, 2002). MUA is generally recommended for individuals who do not respond to or who demonstrate little improvement after conservative treatment.

Postoperative/Post-traumatic Arthrofibrosis of the Knee

Arthrofibrosis of the knee is a condition that may occur following trauma, surgery or joint replacement and results from inflammation and proliferation of scar tissue. Physiologically, traumatic injury to the knee leads to the formation of internal scar tissue with shrinking and tightening of the joints knee capsule. Tendons outside the joint may also shrink and tighten, leading to a further decrease of joint mobility. Treatment of arthrofibrosis of the knee begins with physical therapy to improve motion, for refractory cases manipulation of the joint under anesthesia may be performed. However in some cases manipulation of the joint inadvertently results in femoral or tibial fracture, depending on the severity of adhesion formation and weak joints. As a result, some surgeons perform an arthroscopic internal resection of scar tissue prior to manipulating the joint in order to reduce the manipulation force and prevent fractures. MUA is indicated, with or without arthroscopy for arthrofibrosis of the knee, when there is < 90° range of motion following surgery or trauma despite physical therapy (Magit, et al. 2007). Published evidence in the medical literature supports MUA as a well-established safe and effective treatment for arthrofibrosis of the knee (Issa, et al., 2014; Pivec, et al., 2013; Ghani, et al., 2012; Ipach, et al., 2011; Fitzsimmons, et al., 2010; Mohammed, et al., 2009; Keating, et al., 2007; Magit, et al., 2007; Namba and Inacio, 2007; D'Amato and Bach, 2003; Esler, et al. 1999).

Fracture and/or Dislocation

MUA is also considered a well-established and successful treatment for some types of fractures (e.g., vertebral, long bones) and acute/traumatic dislocations (e.g., perched cervical facet). It is typically performed with surgical repair and other medically necessary procedures such as arthroscopy. When performed in this context, MUA is considered incidental to the base procedure.

Chronic Contracture of Upper or Lower Extremity Joint

A joint contracture is a limitation in the passive range of motion of a joint. Joint contractures prevent normal movement of the associated body part and can result from a variety of causes such as spasticity or prolonged immobilization. Intra-articular adhesions and peri-articular adhesions, as well as capsular, ligament and muscle shortening and tightness may develop. As a result, activities of daily living and other skills may be adversely affected due to the decreased mobility. In many cases, contractures can be successfully treated nonoperatively with aggressive physical therapy or splinting with restoration of functional range of motion. When conservative treatment fails more aggressive treatment may necessary and includes anesthetic block, maximal stretching, and in some cases, serial casting (Garden, 2002). For joint contracture deformities, extra-articular and intra-articular soft tissue releases are considered standard treatment (Paley, 2003). Surgical treatments include tenotomy, tendon lengthening and joint capsule release. Manipulation under anesthesia, involving maximal passive stretching may be considered standard treatment and is often performed in combination with serial casting and/or surgical release when less aggressive treatments have failed.

Pain Management

Although not well-supported in the peer-reviewed published scientific literature, manipulation under anesthesia has been proposed as a treatment for spine-related pain conditions, including but not limited to, acute or chronic cervical pain, cervicobrachial, cervicocranial, lumbar, pelvis, or lower extremity syndromes with somatic dysfunctions that have not responded to conservative management. Manipulation under anesthesia for pain management often involves the spine and/or other major body joints in addition to the spine. Individuals typically undergo a 4 to 8 week trial of conservative manipulation management (e.g., chiropractic care) prior to more aggressive approaches, such as MUA. Authors contend failure of a trial of conservative therapy is thought to be the primary basis for more aggressive MUA approaches (Kohlbeck, et al., 2002).

When utilized for pain management, MUA treatment typically consists of consecutive daily treatment sessions, (generally one to five sessions, with three being the average), followed by additional outpatient chiropractic

sessions and may or may not be accompanied by steroid injections. During the procedure, manipulation of various joints, including the spine, may be performed as part of the overall therapy plan. Cremata and associates (2005) identified three distinct stages to MUA: sedation of the patient, specific chiropractic adjustments, and passive stretching and traction procedures of the spine, sacroiliac and pelvis. The literature suggests maneuvers are predetermined for each individual patient but often involves all regions of the spine (i.e., cervical, thoracic, lumbar) as well as distal extremities and that the need for serial manipulations is determined by the degree of biomechanical function following the initial procedure. However, there is insufficient evidence in the peer-reviewed published scientific literature to support safety and efficacy of MUA for the management of acute or chronic pain conditions, when performed as single or multiple treatment sessions.

Spine: Theoretically, spinal manipulation as a method of treatment for subluxation stretches the joint capsules and resets the spinal cord and nerve position, allowing the nervous system to function optimally. Evidence in the published, peer-reviewed scientific literature has failed to demonstrate the safety and efficacy of MUA when used for the treatment of pain associated with the spine (SMUA) and some sources indicate the treatment may be hazardous and is obsolete (Kohatsu, 2007; Lindsey, et al., 2003). In addition, anesthesia itself carries a small but clinically significant risk. Overall, the evidence evaluating SMUA consists mainly of case reports, case series, few controlled clinical trials and literature reviews (Peterson, et al., 2014; Taber, et al., 2013; Cremata, et al., 2005; Kohlbeck, et al., 2005; Palmieri and Smoyak, 2002; Kohlbeck and Haldeman, 2002; West, et al., 1999). Some of the study results support improvement in pain and function following SMUA when compared to traditional manipulation (Kohlbeck, et al., 2005; Palmieri and Smoyak, 2002); however these studies are limited by lack of randomization, small sample populations and measurement of short-term outcomes. Follow-up assessments were generally conducted from three months to one year post-MUA treatment, some of which consisted of self-reported outcomes and questionnaires. Patient selection criteria are poorly defined and treatment protocols vary making comparisons difficult. Much of the evidence evaluating SMUA is low quality and reliable conclusions cannot be drawn regarding efficacy and improvement of health outcomes. Further well-designed clinical trials are needed to support the safety and effectiveness of the procedure for the management of acute or chronic pain conditions related to the spine.

Other Joints: Evidence in the medical literature evaluating the use of MUA for management of pain conditions involving one or more (i.e., multiple joints, whole body MUA) of other major joints such as the hip, ankle, toe, elbow, and wrist, is lacking. Due to insufficient evidence conclusions cannot be made regarding the clinical utility or safety and efficacy of MUA involving other single or multiple joints for pain management.

Other Conditions

There is insufficient evidence in the peer-reviewed published scientific literature to support safety and efficacy of manipulation under anesthesia of any joint such as the hip, ankle, toe, elbow, and wrist for the treatment of any other condition.

Professional Societies/Organizations

Published guidelines on the diagnosis and treatment of neck, upper back and low back pain prepared by the Work Loss Data Institute (WLDI) both address MUA; MUA is listed in both documents as a procedure that was evaluated and that is not recommended (Work Loss Data Institute, 2011a, 2011b).

According to the American College of Occupational and Environmental Medicine (ACOEM) practice guidelines regarding physical methods of treatment for low back disorders (Hegmann, 2007; update: Hegmann, et al., 2008), due to insufficient evidence manipulation under anesthesia (MUA) and medication-assisted spinal manipulation (MASM) for acute, subacute or chronic low back pain is not recommended.

Use outside the US

No relevant information.

Summary

Evidence in the published scientific literature indicates that joint manipulation under anesthesia is safe and effective for a specific subset of patients with certain orthopedic conditions, such as isolated joint conditions, vertebral fractures or dislocations. While several authors have reported on manipulation under anesthesia (MUA), including spinal manipulation under anesthesia (SMUA) for the treatment of acute and chronic spine- and other related pain conditions, the published, peer-reviewed scientific literature provides insufficient evidence to support its safety and effectiveness.

Coding/Billing Information

Note: 1) This list of codes may not be all-inclusive.

2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

Covered when medically necessary:

Coverage is limited to a **SINGLE** treatment session of an isolated joint condition.

SHOULDER

Covered when medically necessary:

CPT[®]* Codes	Description
23655	Closed treatment of shoulder dislocation, with manipulation; requiring anesthesia
23700	Manipulation under anesthesia, shoulder joint, including application of fixation apparatus (dislocation excluded)

SPINE

Covered when medically necessary:

CPT[®]* Codes	Description
22505	Manipulation of spine requiring anesthesia, any region

PELVIS

Covered when medically necessary:

CPT[®]* Codes	Description
27194	Closed treatment of pelvic ring fracture, dislocation, diastasis or subluxation, with manipulation, requiring more than local anesthesia

ARM

Covered when medically necessary:

CPT[®]* Codes	Description
24300	Manipulation, elbow, under anesthesia
24605	Treatment of closed elbow dislocation; requiring anesthesia
25675	Closed treatment of distal radioulnar dislocation with manipulation

WRIST

Covered when medically necessary:

CPT[®]* Codes	Description
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25259	Manipulation, wrist, under anesthesia
25690	Closed treatment of lunate dislocation, with manipulation
26641	Closed treatment of carpometacarpal dislocation, thumb, with manipulation
26675	Closed treatment of carpometacarpal dislocation, other than thumb, with manipulation, each joint, requiring anesthesia

HAND /FINGERS

Covered when medically necessary:

CPT[®]* Codes	Description
26340	Manipulation, finger joint, under anesthesia, each joint
26989†	Unlisted procedure, hands or fingers
26705	Closed treatment of metacarpophalangeal dislocation, single, with manipulation; requiring anesthesia
26775	Closed treatment of interphalangeal joint dislocation, single, with manipulation; requiring anesthesia
28665	Closed treatment of interphalangeal joint dislocation; requiring anesthesia

†**Note:** Covered when medically necessary when used to report MUA of a finger or thumb requiring anesthesia.

HIP

Covered when medically necessary:

CPT[®]* Codes	Description
27252	Closed treatment of hip dislocation, traumatic; requiring anesthesia
27275	Manipulation hip joint, requiring general anesthesia

LEG

Covered when medically necessary:

CPT[®]* Codes	Description
27831	Closed treatment of proximal tibiofibular joint dislocation; requiring anesthesia

KNEE

Covered when medically necessary:

CPT[®]* Codes	Description
27552	Closed treatment of knee dislocation; requiring anesthesia
27562	Closed treatment of patellar dislocation; requiring anesthesia
27570	Manipulation of knee joint under general anesthesia (includes application of traction or other fixation devices)

ANKLE

Covered when medically necessary:

CPT®* Codes	Description
27860	Manipulation of ankle under general anesthesia (includes application of traction or other fixation apparatus)
28545	Closed treatment of talotarsal joint dislocation; requiring anesthesia

FOOT/TOES

Covered when medically necessary when used to report MUA of a toe(s) requiring anesthesia:

CPT®* Codes	Description
28635	Closed treatment of metatarsophalangeal joint dislocation; requiring anesthesia
28899	Unlisted procedure, foot or toes

Experimental, investigational or unproven when used to report manipulation under anesthesia of a single joint or multiple body joints for any other condition, including the management of acute or chronic pain conditions:

CPT®* Codes	Description
21073	Manipulation of temporomandibular joint(s) (TMJ), therapeutic, requiring an anesthesia service (ie, general or monitored anesthesia care)
22505	Manipulation of spine requiring anesthesia, any region
23655	Closed treatment of shoulder dislocation, with manipulation; requiring anesthesia
23700	Manipulation under anesthesia, shoulder joint, including application of fixation apparatus (dislocation excluded)
24300	Manipulation, elbow, under anesthesia
25259	Manipulation, wrist, under anesthesia
25675	Closed treatment of distal radioulnar dislocation with manipulation
25690	Closed treatment of lunate dislocation, with manipulation
26340	Manipulation, finger joint, under anesthesia, each joint
26641	Closed treatment of carpometacarpal dislocation, thumb, with manipulation
26675	Closed treatment of carpoetacarpal dislocation, other than thumb, with manipulation, each joint, requiring anesthesia
26705	Closed treatment of metacarpophalangeal dislocation, single, with manipulation; requiring anesthesia
26775	Closed treatment of interphalangeal joint dislocation, single, with manipulation; requiring anesthesia
26989	Unlisted procedure, hands or fingers
27194	Closed treatment of pelvic ring fracture, dislocation, diastasis or subluxation, with manipulation, requiring more than local anesthesia
27275	Manipulation hip joint, requiring general anesthesia
27570	Manipulation of knee joint under general anesthesia (includes application of traction or other fixation devices)
27860	Manipulation of ankle under general anesthesia (includes application of traction or other fixation apparatus)
28635	Closed treatment of metatarsophalangeal joint dislocation; requiring anesthesia
28665	Closed treatment of interphalangeal joint dislocation; requiring anesthesia
28899	Unlisted procedure, foot or toes

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