CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all plans administered by CIGNA Companies including plans administered by Great-West Healthcare, which is now a part of CIGNA.

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Coverage Policy Number 0276

Subject **Manipulation Under Anesthesia**

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Chiropractic Care
Mechanical Devices for the Treatment of Back Pain

INSTRUCTIONS FOR USE

*Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans as well as benefit plans formerly administered by Great-West Healthcare. Please note, the terms of a participant's particular benefit plan document [Group Service Agreement (GSA), 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 participant'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 participant's benefit plan document **always supercedes** 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 group 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. Proprietary information of CIGNA. Copyright ©2010 CIGNA*

Coverage Policy

CIGNA covers manipulation under anesthesia* (MUA) as medically necessary for ANY of the following isolated joint conditions:

- 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)
- arthrofibrosis of the knee following trauma or knee surgery (e.g., total knee replacement, anterior cruciate ligament repair) (CPT code 27570)
- 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 involving an isolated joint. Repeat treatment sessions are subject to medical necessity review. Serial treatment sessions are not in accordance with generally accepted standards of medical practice and are therefore not medically necessary.**

CIGNA does not cover SINGLE or SERIAL treatment sessions of MUA involving any of the following joints or combinations of joints, including MULTIPLE body joint MUA, for the management of acute or chronic pain conditions because each 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 28665)
- wrist (CPT code 25259)

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 the patient 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 a well-accepted form of treatment for isolated 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, there has been increasing interest in MUA 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.

Because the patient's protective reflex mechanism is absent under anesthesia, proponents contend it is less difficult to separate and move the joint. 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) with other joint manipulation and total body joint manipulation.

Isolated Joint Conditions
MUA is considered reasonable and necessary and is a well-established method of treatment for some isolated joint conditions. When performed for these isolated joint conditions, MUA generally requires a single session of treatment and is most often performed unilateral. Data supporting the need for, and clinical efficacy of multiple, repeat MUA treatment sessions for these conditions, were not found in the peer-reviewed published medical literature.

Adhesive Capsulitis/Frozen Shoulder: Evidence in the peer-reviewed published scientific literature, including textbook sources, supports MUA as a well established method of treatment for refractory cases of adhesive capsulitis (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. 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.

Arthrofibrosis of the Knee: Evidence in the medical literature also exists to support MUA as a well-established and effective treatment for arthrofibrosis of the knee (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). Arthrofibrosis is a condition that generally follows knee trauma or surgery. Often seen after procedures such as ACL reconstruction surgery or knee replacement, arthrofibrosis is due to inflammation and proliferation of scar tissue. Traumatic injury to the knee leads to the formation of internal scar tissue which is followed by shrinking and tightening of the joints knee capsule. In some cases, tendons outside the joint shrink and tighten, all of which lead to decreased motion of the joint. The traditional treatment for arthrofibrosis of the knee is manipulation of the knee joint under anesthesia. However, in severe cases, individuals may inadvertently develop a femoral or tibial fracture at the time of joint manipulation as a result of the severity of adhesion formation and weakened joints. Surgeons often perform arthroscopic internal resection of scar tissue prior to manipulating the knee 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).

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.

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 and some functional range of motion can be restored. 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 have been the 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.

Spinal Manipulation Under Anesthesia: Theoretically, spinal manipulation as a method of treatment for subuxation stretches the joint capsules and resets the spinal cord and nerve position, allowing the nervous system to function optimally. Various clinical practice methods have been employed; however Kohlbeck and Haldeman (2002) identified four categories of medication-assisted manipulation:

1. manipulation under general anesthesia
2. manipulation under epidural anesthesia, with or without epidural steroid injection
3. manipulation under joint anesthesia/analgesia
4. manipulation with injectants such as steroids or proliferant agents

Evidence in the published, peer-reviewed scientific literature has failed to demonstrate the safety and efficacy of SMUA when employed for spine and other joint-related pain conditions. The evidence evaluating SMUA consists mainly of case reports, case series, few controlled clinical trials and literature reviews (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.

In addition, textbook sources indicate this method of treatment can be hazardous and is obsolete (Kohatsu, 2007; Lindsey, et al., 2003). Spinal manipulation, with or without anesthesia, is associated with risks and complications which may include vertebrobasilar accidents, disk herniation, and progression to cauda equina syndrome, paralysis or vertebral pedicle fracture. Furthermore, anesthesia itself carries a small but clinically significant risk.

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

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, 2008a, 2008b).

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.

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

Covered when medically necessary. Coverage is limited to a SINGLE treatment session of an isolated joint condition.

Manipulation under anesthesia of a single joint or multiple body joints is not covered for 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 carpalmetacarpal 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
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
28665	Closed treatment of interphalangeal joint dislocation; requiring anesthesia

ICD-9-CM Diagnosis Codes	Description
718.41	Contracture of shoulder joint
718.42	Contracture of upper arm joint
718.43	Contracture of forearm joint
718.44	Contracture of hand joint
718.46	Contracture of lower leg joint
718.47	Contracture of ankle and foot joint
718.51	Ankylosis of joint of shoulder region
718.56	Ankylosis of lower leg joint
722.0	Displacement of cervical intervertebral disc without myelopathy
722.10	Displacement of lumbar intervertebral disc without myelopathy

726.0	Adhesive capsulitis of shoulder
726.5	Enthesopathy of hip region
726.30	Enthesopathy of elbow, unspecified
726.40	Enthesopathy of wrist and carpus
726.60	Enthesopathy of knee, Unspecified
726.70	Enthesopathy of ankle and tarsus
805.80 – 805.88	Fracture of vertebral column without mention of spinal cord injury, unspecified, closed
834.00 – 834.02	Closed dislocation of finger
	Multiple/Varied

Experimental/Investigational/Unproven/Not Covered for the Management of Acute or Chronic Pain Conditions:

CPT®* Codes	**Description 26989**
26989†	Unlisted procedure, hands or fingers
28899††	Unlisted procedure, foot or toes

†**Note: Experimental, investigational, unproven and not covered when used to report manipulation under anesthesia of a finger or thumb.**

††**Note: Experimental, investigational, unproven and not covered when used to report manipulation under anesthesia of a toe(s).**

ICD-9-CM Diagnosis Codes	**Description**
719.40 – 719.49	Pain in joint
719.50 – 719.59	Stiffness of joint, not elsewhere classified
720.2	Sacroiliitis, not elsewhere classified
723.1	Cervicalgia
723.3	Cervicobrachial syndrome (diffuse)
723.4	Brachial neuritis or radiculitis nos.
724.00 – 724.09	Spinal stenosis, other than cervical
724.1	Pain in thoracic spine
724.2	Lumbago
724.3	Sciatica
724.4	Thoracic or lumbosacral neuritis or radiculitis, unspecified
724.5	Backache, Unspecified
724.6	Disorders of sacrum
726.10	Unspecified disorders of bursae and tendons in shoulder region
726.2	Other affections of shoulder region, not elsewhere classified
727.06	Tenosynovitis of foot and ankle
727.09	Other synovitis and tenosynovitis
735.2	Hallux rigidus
739.5	Nonallopathic lesion of pelvic region, not elsewhere classified
728.85	Spasm of muscle
840.4	Rotator cuff (capsule) sprain and strain
	Multiple/Varied

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Policy History

Pre-Merger Organizations	Last Review Date	Policy Number	Title
CIGNA HealthCare	12/15/2007	0276	Spinal Manipulation Under Anesthesia (SMUA) for the Treatment of Spine-Related Pain Conditions
Great-West Healthcare	11/30/2007	05.329.02	Spinal Manipulation under Anesthesia