



BlueCross BlueShield
of Alabama

Name of Blue Advantage Policy:

Joint Manipulation Under Anesthesia (Excluding Spine)

Policy #: 345

Latest Review Date: May 2024

Category: Surgery

BACKGROUND:

Blue Advantage medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:

1. *Safe and effective;*
2. *Not experimental or investigational*;*
3. *Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is:*
 - *Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;*
 - *Furnished in a setting appropriate to the patient's medical needs and condition;*
 - *Ordered and furnished by qualified personnel;*
 - *One that meets, but does not exceed, the patient's medical need; and*
 - *At least as beneficial as an existing and available medically appropriate alternative.*

Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000 which meet the requirements of the Clinical Trials NCD are considered reasonable and necessary by Medicare. Providers should bill **Original Medicare for covered services that are related to **clinical trials** that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual Chapter 32, Sections 69.0-69.11).*

POLICY:

Blue Advantage will treat **joint manipulation under anesthesia** as a **covered** benefit for the following indications:

- Treatment of frozen shoulder (adhesive capsulitis); when there is failure of conservative medical management, including medications with or without articular injections, home exercise programs and physical therapy.
- Treatment of arthrofibrosis of knee following total knee arthroplasty, knee surgery, or fracture in persons having less than 90-degree range of motion, six or more weeks status post-surgery or traumatic event;
- Treatment of complete joint dislocations or to set fractures.
- Treatment status-post surgery or in conjunction with pin placement will be reviewed individually for other joints, i.e., fingers or toes.

MUA provided for the above indications usually consist of a single treatment session involving an isolated joint. Repeat treatment sessions or multiple joint manipulations under anesthesia are subject to medical necessity review.

Blue Advantage will treat **manipulation of joints under anesthesia involving serial treatment sessions** as a **non-covered** benefit.

Blue Advantage will treat **joint manipulation under anesthesia** as a **non-covered** benefit for the treatment of other disorders of joints (e.g., pelvis, hip, ankle, elbow, wrist, toe, temporomandibular joint, and finger) or for the treatment of acute or chronic pain conditions.

Blue Advantage will treat **manipulation of multiple joints under anesthesia** as a **non-covered** benefit and as **investigational**.

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

DESCRIPTION OF PROCEDURE OR SERVICE:

Manipulation under anesthesia (MUA) consists of a series of mobilization, stretching, and traction procedures performed while the patient receives anesthesia (usually general anesthesia or moderate sedation).

Manipulation is intended to break up fibrous and scar tissue to relieve pain and improve range of motion. 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. MUA is generally performed with an anesthesiologist in attendance. MUA is an

accepted treatment for isolated joint conditions, such as arthrofibrosis of the knee and adhesive capsulitis. It is also used to treat (reduce) fractures (e.g., long bones) and dislocations.

Because the patient's protective reflex mechanism is absent under anesthesia, proponents contend it is less difficult to separate and move the joint. The physician performs a combination of short manipulations, passive stretches and maneuvers to break up fibrous and scar tissue around the joint area. 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).

KEY POINTS:

Summary of Evidence

MUA for Treatment of Adhesive Capsulitis of the Shoulder

For individuals who have adhesive capsulitis of the shoulder who receive manipulation under anesthesia, the evidence is sufficient to determine the effects of the technology on health outcomes.

MUA for Postoperative/Post-traumatic Arthrofibrosis of the Knee

Published evidence in the medical literature supports MUA as a well-established safe and effective treatment for arthrofibrosis of the knee. The evidence is sufficient to determine the effects of the technology on health outcomes.

Postoperative/Post-traumatic Arthrofibrosis of the Elbow

Arthrofibrosis of the elbow often occurs following injury (e.g., operative, fracture). The elbow becomes stiff as a result of soft-tissue contracture of the ligaments, muscles and/or tendons. Early management generally involves bracing and splints (Araghi, et al, 2010). Manipulation under anesthesia may be recommended when there is failure to progress improve and progress following the use of bracing. Operative release may be considered a treatment option depending on the cause of the contracture, the presence of pain or other symptoms, and decrease in functional level.

Published evidence in the peer reviewed scientific literature supporting the safety and effectiveness of using manipulation under anesthesia of the elbow is limited to retrospective case series, involve small sample populations and lack control groups. Few studies lend support to clinical effectiveness for the treatment of joint stiffness/fibrosis when other conservative measures, such as bracing and splinting, have failed to improve range of motion. In addition, evidence-based clinical practice guidelines supporting MUA for arthrofibrosis of the elbow are not available. There is insufficient evidence in the peer-reviewed published literature and lack of consensus among professional societies to support the effectiveness of MUA as treatment for arthrofibrosis of the elbow.

Evidence supporting the use of MUA for management of pain conditions involving other major joints, multiple body joints or whole body MUA, such as the hip, ankle, elbow, and wrist was not found in the medical literature. 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. Evidence regarding the efficacy of MUA over several sessions or for multiple joints is also lacking and is insufficient to determine whether MUA improves health outcomes; thus, it is considered investigational.

Practice Guidelines and Position Statements

American Academy of Osteopathy (AAO)

The American Academy of Osteopathy (AAO) published a consensus statement in 2005 on osteopathic manipulation of somatic dysfunction under anesthesia and conscious sedation. The AAO states that manipulation under anesthesia may be appropriate in cases of restrictions and abnormalities of function that include recurrent muscle spasm, range-of-motion restrictions, persistent pain secondary to injury and/or repetitive motion trauma, and is in general limited to patients who have somatic dysfunction which:

1. Has failed to respond to conservative treatment in the office or hospital that has included the use of osteopathic manipulative therapy, physical therapy and medication; and/or;
2. Is so severe that muscle relaxant medication, anti-inflammatory medication or analgesic medications are of little benefit; and/or;
3. Results in biomechanical impairment which may be alleviated with use of the procedure.

U.S. Preventive Services Task Force Recommendations

The U.S. Preventive Services Task Force has not addressed manipulation under anesthesia.

KEY WORDS:

Manipulation under anesthesia, MUA, manipulation under joint anesthesia/analgesia, MUJA

APPROVED BY GOVERNING BODIES:

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

BENEFIT APPLICATION:

Coverage is subject to member's specific benefits. Group-specific policy will supersede this policy when applicable.

CURRENT CODING:

CPT Codes:

21073	Manipulation of temporomandibular joint(s) (TMJ), therapeutic, requiring an anesthesia service (i.e., general or monitored anesthesia care)
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
26340	Manipulation, finger joint, under anesthesia, each joint
26675	Closed treatment of carpometacarpal 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
27198	Closed treatment of posterior pelvic ring fracture(s), dislocation(s), diastasis or subluxation of the ilium, sacroiliac joint, and/or sacrum, with or without anterior pelvic ring fracture(s) and/or dislocation(s) of the pubic symphysis and/or superior/inferior rami, unilateral or bilateral; with manipulation, requiring more than local anesthesia (i.e. general anesthesia, moderate sedation, spinal/epidural)
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)

REFERENCES:

1. American Academy of Orthopaedic Surgeons (AAOS). OrthoInfo. www.orthoinfo.aaos.org/en/diseases--conditions/frozen-shoulder/.
2. American Academy of Osteopathy. Consensus statement for osteopathic manipulation of somatic dysfunction under anesthesia and conscious sedation. American Academy of Osteopathy Journal 2005; 15(2):26-27.
3. Araghi A, Celli A, Adams R, Morrey B. The outcome of examination (manipulation) under anesthesia on the stiff elbow after surgical contracture release. Shoulder Elbow Surg. 2010 Mar; 19(2):202-208.
4. Bidwai AS, Mayne AI, Nielsen M, Brownson P. Limited capsular release and controlled manipulation under anaesthesia for the treatment of frozen shoulder. Shoulder Elbow. 2016;8(1):9-13.
5. Brealey S, Northgraves M, Kottam L, et al. Surgical treatments compared with early structured physiotherapy in secondary care for adults with primary frozen shoulder: The UK FROST three-arm RCT. Health Technol Assess. 2020;24(71):1-162.
6. Evans KN, Lewandowski L et al. Outcomes of manipulation under anesthesia versus surgical management of combat-related arthrofibrosis of the knee. J Surg Orthop 2013 22(1):36-41
7. Fitzsimmons SE, Vazquez EA, Bronson MJ. How to treat the stiff total knee arthroplasty?: a systematic review. Clin Orthop Relat Res. 2010 Apr; 468(4):1096-1106.
8. Ghani H, Maffulli N, Khanduja V. Management of stiffness following total knee arthroplasty: A systematic review. Knee. 2012 Apr 23.
9. Gu A, Michalak AJ, Cohen JS. Efficacy of Manipulation Under Anesthesia for Stiffness Following Total Knee Arthroplasty: A Systematic Review. J Arthroplasty. 2018 May;33(5):1598-1605.
10. IOM (Institute of Medicine). 2011. Clinical Practice Guidelines We Can Trust. Washington, DC: The National Academies Press.
11. Ipach I, Mittag F, Lahrmann J, Kunze B, Kluba T. Arthrofibrosis after TKA - Influence factors on the absolute flexion and gain in flexion after manipulation under anaesthesia. BMC Musculoskelet Disord. 2011 Aug 12; 12:184.
12. Issa K, Banerjee S, Kester MA, Khanuja HS, Delanois RE, Mont MA. The effect of timing of manipulation under anesthesia to improve range of motion and functional outcomes following total knee arthroplasty. J Bone Joint Surg Am. 2014 Aug 20; 96(16):1349-57.
13. Issa K, Kapadia BH, Kester M, Khanuja HS, Delanois RE, Mont MA. Clinical, objective, and functional outcomes of manipulation under anesthesia to treat knee stiffness following total knee arthroplasty. J Arthroplasty. 2014 Mar; 29(3):548-52.
14. Kim, D. H., Song, K. S., Min, B. W., Bae, K. C., Lim, Y. J., & Cho, C. H. (2020). Early Clinical Outcomes of Manipulation under Anesthesia for Refractory Adhesive Capsulitis: Comparison with Arthroscopic Capsular Release. Clinics in orthopedic surgery, 12(2), 217–223.

15. Kornuijt A, Das D, Sijbesma T, et al. Manipulation under anesthesia following total knee arthroplasty: A comprehensive review of literature. *Musculoskelet Surg.* 2018;102(3):223-230.
16. Lee S-J, Jang J-H, Hyun Y-S, et al. Can manipulation under anesthesia alone provide clinical outcomes similar to arthroscopic circumferential capsular release in primary frozen shoulder (FS)? The necessity of arthroscopic capsular release in primary FS. *Clin Shoulder Elb.* 2020;23(4):169-177.
17. Magit D, Wolff A, Sutton K and Medvecky MJ. Arthrofibrosis of the knee. *J Am Acad Orthop Surg* 2007; 15 (11):682-694.
18. Mun S, Baek C. Clinical efficacy of hydrodistention with joint manipulation under interscalene block compared with intra-articular corticosteroid injection for frozen shoulder: a prospective randomized controlled study. *J Shoulder Elbow Surg.* 2016 Dec;25(12):1937-1943.
19. Viveen J, Doornberg JN, van den Bekerom MPJ. Manipulation Under Anesthesia as a Treatment of Posttraumatic Elbow Stiffness: Should We Really? *Journal Of Orthopaedic Trauma.* 2018;32(12):e497-e498.
20. Yao, D., Bruns, F., Ettinger, S. et al. Manipulation under anesthesia as a therapy option for postoperative knee stiffness: a retrospective matched-pair analysis. *Arch Orthop Trauma Surg.* 2020;140: 785–791.
21. Yeoh D, Nicolaou N, Goddard R, Manipulation under anesthesia post total knee replacement: long term follow up. *Knee.* 2012; 19(4): 329-331.

POLICY HISTORY:

Adopted for Blue Advantage, February 2009
 Available for comment February 10-March 26, 2009
 Medical Policy Group, March 2009
 Available for comment April 3-May 18, 2009
 Medical Policy Group, June 2011
 Available for comment July 6 through August 22, 2011
 Medical Policy Group, October 2012
 Medical Policy Group, January 2014
 Medical Policy Group, December 2014
 Medical Policy Group, August 2016
 Medical Policy Group, December 2016
 Medical Policy Group, July 2018 **(5)**: Updated Code 21073 with referral to Palmetto
 Medical Policy Group, March 2020: Added 21073 back to policy effective March 24, 2020.
 Medical Policy Group, June 2021
 Medical Policy Group, May 2022
 Medical Policy Group, May 2023
 UM Committee, December 2023: Policy approved by UM Committee for use for Blue Advantage business.
 Medical Policy Group, May 2024

UM Committee, May 2024: Annual review of policy approved by UM Committee for use for Blue Advantage business.

This medical policy is not an authorization, certification, explanation of benefits, or a contract. Eligibility and benefits are determined on a case-by-case basis according to the terms of the member's plan in effect as of the date services are rendered. All medical policies are based on (i) research of current medical literature and (ii) review of common medical practices in the treatment and diagnosis of disease as of the date hereof. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment.

This policy is intended to be used for adjudication of claims (including pre-admission certification, pre-determinations, and pre-procedure review) in Blue Cross and Blue Shield's administration of plan contracts.