

Medical Coverage Policy | Arthroscopy for Temporomandibular Joint (TMJ) Disorder



EFFECTIVE DATE: 12|01|2022

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OVERVIEW

Temporomandibular joint disorder (TMJD) refers to a group of disorders characterized by pain in the temporomandibular joint and surrounding tissues. Initial conservative therapy is generally recommended; there are also a variety of nonsurgical and surgical treatment possibilities for patients whose symptoms persist.

This policy is specific to arthroscopy of temporomandibular joint (TMJ).

MEDICAL CRITERIA

Medicare Advantage Plans and Commercial Products

Arthroscopy of the temporomandibular joint may be considered medically necessary when temporomandibular joint disorder (TMJD) results from any of the following:

- Congenital anomalies, or
- Trauma, or
- Disease in patients who have failed conservative treatment.

PRIOR AUTHORIZATION

Prior authorization is required for Medicare Advantage Plans and recommended for Commercial Products for arthroscopy of the temporomandibular joint.

POLICY STATEMENT

Medicare Advantage Plans and Commercial Products

Arthroscopy of the temporomandibular joint may be considered medically necessary when the medical criteria above has been met.

COVERAGE

Medicare Advantage Plans and Commercial Products

Benefits may vary between groups and contracts. Please refer to the appropriate section of the Benefit Booklet, Evidence of Coverage or Subscriber Agreement for services not medically necessary.

BACKGROUND

Diagnosis of Temporomandibular Joint Disorder

In the clinical setting, temporomandibular joint disorder (TMJD) is often a diagnosis of exclusion and involves physical examination, patient interview, and a review of dental records. Diagnostic testing and radiologic imaging are generally only recommended for patients with severe and chronic symptoms.

Symptoms attributed to TMJD vary and include, but are not limited to, clicking sounds in the jaw; headaches; closing or locking of the jaw due to muscle spasms (trismus) or displaced disc; pain in the ears, neck, arms, and spine; tinnitus; and bruxism (clenching or grinding of the teeth).

Treatment

For many patients, symptoms of TMJD are short-term and self-limiting. Conservative treatments (eg, eating soft foods, rest, heat, ice, avoiding extreme jaw movements) and anti-inflammatory medication are recommended before considering more invasive and/or permanent therapies (eg, surgery).

The purpose of surgical techniques in patients with a confirmed diagnosis of TMJD is to provide a treatment option that is an alternative to or an improvement on existing therapies, such as nonsurgical intervention.

If joint pain does not resolve with conservative treatments and it appears to be caused by a structural problem in the joint, open-joint surgery called arthrotomy may be suggested to repair the joint. Arthrotomy is an open joint procedure (an incision is made a few inches long over the joint so your doctor can operate on the joint itself) done under general anesthesia. The surgery may last between one to two hours. The recovery is significantly longer (3-8 weeks) and more painful than the TMJ Arthrocentesis or TMJ Arthroscopy.

An incision is made along the ear (similar to what is done for a face lift) and the joint space is opened so that the surgeon can see it. This allows for the removal of adhesions, osteophytes (bone spurs), fibrous or bony ankylosis (fusion) and/or tumors, etc.

CODING

Medicare Advantage Plans and Commercial Products

The following CPT code(s) is considered medically necessary when the criteria above has been met:

21010 Arthrotomy, temporomandibular joint

RELATED POLICIES

Prior Authorization via Web-Based Tool for Procedures

PUBLISHED

Provider Update, August 2024

Provider Update, May 2023

Provider Update, October 2022

REFERENCES

1. Schiffman E, Ohrbach R, Truelove E, et al. Diagnostic Criteria for Temporomandibular Disorders (DC/TMD) for Clinical and Research Applications: recommendations of the International RDC/TMD Consortium Network* and Orofacial Pain Special Interest Group†. *J Oral Facial Pain Headache*. 2014; 28(1): 6-27. PMID 24482784
2. Ohrbach R, Turner JA, Sherman JJ, et al. The Research Diagnostic Criteria for Temporomandibular Disorders. IV: evaluation of psychometric properties of the Axis II measures. *J Orofac Pain*. 2010; 24(1): 48-62. PMID 20213031
3. Schiffman E, Ohrbach R. Executive summary of the Diagnostic Criteria for Temporomandibular Disorders for clinical and research applications. *J Am Dent Assoc*. Jun 2016; 147(6): 438-45. PMID 26922248
4. Almeida FT, Pacheco-Pereira C, Flores-Mir C, et al. Diagnostic ultrasound assessment of temporomandibular joints: a systematic review and meta-analysis. *Dentomaxillofac Radiol*. Feb 2019; 48(2): 20180144. PMID 30285469
5. Manfredini D, Guarda-Nardini L. Ultrasonography of the temporomandibular joint: a literature review. *Int J Oral Maxillofac Surg*. Dec 2009; 38(12): 1229-36. PMID 19700262
6. Klasser GD, Okeson JP. The clinical usefulness of surface electromyography in the diagnosis and treatment of temporomandibular disorders. *J Am Dent Assoc*. Jun 2006; 137(6): 763-71. PMID 16803805
7. Sharma S, Crow HC, McCall WD, et al. Systematic review of reliability and diagnostic validity of joint vibration analysis for diagnosis of temporomandibular disorders. *J Orofac Pain*. 2013; 27(1): 51-60. PMID 234247208.
8. List T, Axelsson S. Management of TMD: evidence from systematic reviews and meta-analyses. *J Oral Rehabil*. May 2010; 37(6): 430-51. PMID 20438615
9. Yao L, Sadeghirad B, Li M, et al. Management of chronic pain secondary to temporomandibular disorders: a systematic review and network meta-analysis of randomised trials. *BMJ*. Dec 15 2023; 383: e076226. PMID 38101924
10. Friction J, Look JO, Wright E, et al. Systematic review and meta-analysis of randomized controlled trials evaluating intraoral orthopedic appliances for temporomandibular disorders. *J Orofac Pain*. 2010; 24(3): 237-54. PMID 20664825

11. Ivorra-Carbonell L, Montiel-Company JM, Almerich-Silla JM, et al. Impact of functional mandibular advancement appliances on the temporomandibular joint - a systematic review. *Med Oral Patol Oral Cir Bucal*. Sep 01 2016; 21(5):e565-72. PMID 27475694
12. Randhawa K, Bohay R, Côté P, et al. The Effectiveness of Noninvasive Interventions for Temporomandibular Disorders: A Systematic Review by the Ontario Protocol for Traffic Injury Management (OPTIMa) Collaboration. *Clin J Pain*. Mar 2016;32(3): 260-78. PMID 25924094
13. Ebrahim S, Montoya L, Busse JW, et al. The effectiveness of splint therapy in patients with temporomandibular disorders: a systematic review and meta-analysis. *J Am Dent Assoc*. Aug 2012; 143(8): 847-57. PMID 22855899
14. Zhang C, Wu JY, Deng DL, et al. Efficacy of splint therapy for the management of temporomandibular disorders: a meta-analysis. *Oncotarget*. Dec 20 2016; 7(51): 84043-84053. PMID 27823980
15. Riley P, Glenny AM, Worthington HV, et al. Oral splints for temporomandibular disorder or bruxism: a systematic review. *Br Dent J*. Feb 2020; 228(3): 191-197. PMID 32060462
16. Al-Moraissi EA, Farea R, Qasem KA, et al. Effectiveness of occlusal splint therapy in the management of temporomandibular disorders: network meta-analysis of randomized controlled trials. *Int J Oral Maxillofac Surg*. Aug 2020;49(8): 1042-1056. PMID 31982236
17. Zhang L, Xu L, Wu D, et al. Effectiveness of exercise therapy versus occlusal splint therapy for the treatment of painful temporomandibular disorders: a systematic review and meta-analysis. *Ann Palliat Med*. Jun 2021; 10(6): 6122-6132. PMID 33977737
18. Alajbeg IZ, Vrbanić E, Lapić I, et al. Effect of occlusal splint on oxidative stress markers and psychological aspects of chronic temporomandibular pain: a randomized controlled trial. *Sci Rep*. Jul 03 2020; 10(1): 10981. PMID 32620810
19. Melo RA, de Resende CMBM, Rêgo CRF, et al. Conservative therapies to treat pain and anxiety associated with temporomandibular disorders: a randomized clinical trial. *Int Dent J*. Aug 2020; 70(4): 245-253. PMID 32153038
20. Ram HK, Shah DN. Comparative evaluation of occlusal splint therapy and muscle energy technique in the management of temporomandibular disorders: A randomized controlled clinical trial. *J Indian Prosthodont Soc*. 2021; 21(4): 356-365. PMID 34810363
21. Tonlorenzi D, Brunelli M, Conti M, et al. An observational study of the effects of using an high oral splint on pain control. *Arch Ital Biol*. Sep 30 2019; 157(2-3): 66-75. PMID 31821530
22. Häggman-Henrikson B, Alstergren P, Davidson T, et al. Pharmacological treatment of oro-facial pain - health technology assessment including a systematic review with network meta-analysis. *J Oral Rehabil*. Oct 2017; 44(10): 800-826. PMID 28884860
23. Mena M, Dalbah L, Levi L, et al. Efficacy of topical interventions for temporomandibular disorders compared to placebo or control therapy: a systematic review with meta-analysis. *J Dent Anesth Pain Med*. Dec 2020; 20(6): 337-356. PMID 33409363
24. Machado D, Martimbianco ALC, Bussadori SK, et al. Botulinum Toxin Type A for Painful Temporomandibular Disorders: Systematic Review and Meta-Analysis. *J Pain*. 2020; 21(3-4): 281-293. PMID 31513934
25. Isacsson G, Schumann M, Nohlert E, et al. Pain relief following a single-dose intra-articular injection of methylprednisolone in the temporomandibular joint arthralgia - A multicentre randomised controlled trial. *J Oral Rehabil*. Jan 2019; 46(1): 5-13. PMID 30240024
26. Tchivileva IE, Hadgraft H, Lim PF, et al. Efficacy and safety of propranolol for treatment of temporomandibular disorder pain: a randomized, placebo-controlled clinical trial. *Pain*. Aug 2020; 161(8): 1755-1767. PMID 32701836
27. Jung A, Shin BC, Lee MS, et al. Acupuncture for treating temporomandibular joint disorders: a systematic review and meta-analysis of randomized, sham-controlled trials. *J Dent*. May 2011; 39(5): 341-50. PMID 21354460
28. Liu GF, Gao Z, Liu ZN, et al. Effects of Warm Needle Acupuncture on Temporomandibular Joint Disorders: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Evid Based Complement Alternat Med*. 2021; 2021: 6868625. PMID 34873409
29. Park EY, Cho JH, Lee SH, et al. Is acupuncture an effective treatment for temporomandibular disorder?: A systematic review and meta-analysis of randomized controlled trials. *Medicine (Baltimore)*. Sep 22 2023; 102(38): e34950. PMID 37746950

30. Manfredini D, Piccotti F, Guarda-Nardini L. Hyaluronic acid in the treatment of TMJ disorders: a systematic review of the literature. *Cranio*. Jul 2010; 28(3): 166-76. PMID 20806734
31. Machado E, Bonotto D, Cunali PA. Intra-articular injections with corticosteroids and sodium hyaluronate for treating temporomandibular joint disorders: a systematic review. *Dental Press J Orthod*. 2013; 18(5): 128-33. PMID 24352399
32. Goiato MC, da Silva EV, de Medeiros RA, et al. Are intra-articular injections of hyaluronic acid effective for the treatment of temporomandibular disorders? A systematic review. *Int J Oral Maxillofac Surg*. Dec 2016; 45(12): 1531-1537. PMID 27374020
33. Liu Y, Wu J, Fei W, et al. Is There a Difference in Intra-Articular Injections of Corticosteroids, Hyaluronate, or Placebo for Temporomandibular Osteoarthritis?. *J Oral Maxillofac Surg*. Mar 2018; 76(3): 504-514. PMID 29182905
34. Gorrela H, Prameela J, Srinivas G, et al. Efficacy of Temporomandibular Joint Arthrocentesis with Sodium Hyaluronate in the Management of Temporomandibular Joint Disorders: A Prospective Randomized Control Trial. *J Maxillofac Oral Surg*. Dec 2017; 16(4): 479-484. PMID 29038631
35. Manfredini D, Rancitelli D, Ferronato G, et al. Arthrocentesis with or without additional drugs in temporomandibular joint inflammatory-degenerative disease: comparison of six treatment protocols*. *J Oral Rehabil*. Apr 2012; 39(4): 245-51. PMID 21999138
36. Bjørnland T, Gjaerum AA, Møystad A. Osteoarthritis of the temporomandibular joint: an evaluation of the effects and complications of corticosteroid injection compared with injection with sodium hyaluronate. *J Oral Rehabil*. Aug 2007; 34(8): 583-9. PMID 17650168
37. Bertolami CN, Gay T, Clark GT, et al. Use of sodium hyaluronate in treating temporomandibular joint disorders: a randomized, double-blind, placebo-controlled clinical trial. *J Oral Maxillofac Surg*. Mar 1993; 51(3): 232-42. PMID 8445463
38. Li J, Chen H. Intra-articular injection of platelet-rich plasma vs hyaluronic acid as an adjunct to TMJ arthrocentesis: A systematic review and meta-analysis. *J Stomatol Oral Maxillofac Surg*. Nov 03 2023; 125(2): 101676. PMID 37923134
39. Xu J, Ren H, Zhao S, et al. Comparative effectiveness of hyaluronic acid, platelet-rich plasma, and platelet-rich fibrin in treating temporomandibular disorders: a systematic review and network meta-analysis. *Head Face Med*. Aug 26 2023; 19(1): 39. PMID 37633896
40. Al-Hamed FS, Hijazi A, Gao Q, et al. Platelet Concentrate Treatments for Temporomandibular Disorders: A Systematic Review and Meta-analysis. *JDR Clin Trans Res*. Apr 2021; 6(2): 174-183. PMID 32464073
41. Liu SS, Xu LL, Liu LK, et al. Platelet-rich plasma therapy for temporomandibular joint osteoarthritis: A randomized controlled trial. *J Craniomaxillofac Surg*. Nov 2023; 51(11): 668-674. PMID 37852892
42. Dasukil S, Arora G, Boyina KK, et al. Intra-articular injection of hyaluronic acid versus platelet-rich plasma following single puncture arthrocentesis for the management of internal derangement of TMJ: A double-blinded randomised controlled trial. *J Craniomaxillofac Surg*. Nov 2022; 50(11): 825-830. PMID 36372680
43. Gökçe Kutuk S, Gökçe G, Arslan M, et al. Clinical and Radiological Comparison of Effects of Platelet-Rich Plasma, Hyaluronic Acid, and Corticosteroid Injections on Temporomandibular Joint Osteoarthritis. *J Craniofac Surg*. Jun 2019; 30(4): 1144-1148. PMID 31166260
44. Hegab AF, Hameed HIAA, Hassaneen AM, et al. Synergistic effect of platelet rich plasma with hyaluronic acid injection following arthrocentesis to reduce pain and improve function in TMJ osteoarthritis. *J Stomatol Oral Maxillofac Surg*. Feb 2023; 124(1S): 101340. PMID 36414172
45. Sit RW, Reeves KD, Zhong CC, et al. Efficacy of hypertonic dextrose injection (prolotherapy) in temporomandibular joint dysfunction: a systematic review and meta-analysis. *Sci Rep*. Jul 19 2021; 11(1): 14638. PMID 34282199
46. Haggag MA, Al-Belasy FA, Said Ahmed WM. Dextrose prolotherapy for pain and dysfunction of the TMJ reducible disc displacement: A randomized, double-blind clinical study. *J Craniomaxillofac Surg*. May 2022; 50(5): 426-431. PMID 35501215
47. Vos LM, Huddleston Slater JJ, Stegenga B. Lavage therapy versus nonsurgical therapy for the treatment of arthralgia of the temporomandibular joint: a systematic review of randomized controlled trials. *J Orofac Pain*. 2013; 27(2): 171-9. PMID 23630689

48. Al-Moraissi EA, Wolford LM, Ellis E, et al. The hierarchy of different treatments for arthrogenous temporomandibular disorders: A network meta-analysis of randomized clinical trials. *J Craniomaxillofac Surg.* Jan 2020; 48(1): 9-23. PMID 31870713
49. Hu Y, Liu S, Fang F. Arthrocentesis vs conservative therapy for the management of TMJ disorders: A systematic review and meta-analysis. *J Stomatol Oral Maxillofac Surg.* Feb 2023; 124(1S): 101283. PMID 36084892
50. Thorpe ARDS, Haddad Y, Hsu J. A systematic review and meta-analysis of randomized controlled trials comparing arthrocentesis with conservative management for painful temporomandibular joint disorder. *Int J Oral Maxillofac Surg.* Aug 2023; 52(8): 889-896. PMID 36732095
51. Hossameldin RH, McCain JP. Outcomes of office-based temporomandibular joint arthroscopy: a 5-year retrospective study. *Int J Oral Maxillofac Surg.* Jan 2018; 47(1): 90-97. PMID 28751180
52. American Association for Dental, Oral, and Craniofacial Research (AADOCR). Science Policy: Temporomandibular disorders (TMD). 1996 (revised 2010, reaffirmed 2015); <https://www.iadr.org/science-policy/temporomandibular-disorders-tmd>. Accessed December 20, 2023.
53. American Society of Temporomandibular Joint Surgeons. Guidelines for diagnosis and management of disorders involving the temporomandibular joint and related musculoskeletal structures. *Cranio.* Jan 2003; 21(1): 68-76. PMID 12555934
54. Busse JW, Casassus R, Carrasco-Labra A, et al. Management of chronic pain associated with temporomandibular disorders: a clinical practice guideline. *BMJ.* Dec 15 2023; 383: e076227. PMID 38101929

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