
UTILIZATION * ALERT*

- Prior to use of this MCP for evaluation of medical necessity, benefit MUST be verified in the member's EOC or benefit document if it includes the optional rider.
- Please refer to CMS guidelines or National Coverage Determination (NCD) for Medicare members
- Medicare does not currently have a National Coverage Determination (NCD) for TMD.
- Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) currently do not exist.
- After searching the Medicare Coverage Database, if no NCD/LCD/LCA is found, then use the policy referenced above for coverage guidelines

I. Service: **Treatment of Temporomandibular Disorders (TMD) or Temporomandibular Joint Disorder (TMJD) / Syndrome**

II. Specialty: **Otolaryngology, Oral Surgery**

III. Clinical Indications for Referral

A. Diagnosis of Temporomandibular Joint Disorder (TMJD) or TMJ Syndrome

1. Problem-specific history and physical findings documentation required:
 - a. Unilateral or bilateral, dull, aching pre-auricular pain along the temporal, cervical and/or occipital regions with tenderness over the affected muscles as well as limited jaw function; **or**
 - b. Continuous pain with function, with pain more localized to the joint; **or**
 - c. Intermittent decrease in motion of the mandible, with poorly localized pain.
2. Diagnostic and therapeutic interventions documentation required:
 - a. TMJ radiographs /diagnostic imaging studies (such as standard TMJ X-rays, CT, MRI) showing anatomical abnormality of the joint; **or**
 - b. Failure of a therapeutic trial of dietary modification and/or medications for 3 or more months (such as NSAID or muscles relaxants); **or**
 - c. Differential diagnostic blocks with local anesthetic.

B. Pathological conditions that may be associated with TMJD or TMJ syndrome

1. Developmental or congenital abnormalities
 - a. Agenesis – failure of TMJ development altogether
 - b. Hemifacial microsomia – failure of development of the lower jaw part of the TMJ
 - c. Condylar hyperplasia – over-growth of the lower jaw part of the TMJ;
 - d. Condylar hypoplasia – under-growth of the lower jaw part of the TMJ



2. Ankylosis
 - a. Pseudo-ankylosis – related to an increased size of the coronoid process of the lower jaw;
 - b. True bony TMJ ankylosis – related to traumatically induced bony fusion of the TMJ itself
3. Tumors
 - a. Benign;
 - b. Malignant
4. Trauma
 - a. Subluxation – hypermobile TMJ which is self-reducible;
 - b. Dislocation – non-self-reducible TMJ hypermobility;
 - c. Fracture;
 - d. Internal derangement
5. Arthritic Diseases
 - a. Low-inflammatory Arthritis
 - i. Osteoarthritis (OA)
 - b. High-inflammatory Arthritis
 - i. Rheumatoid Arthritis (RA);
 - ii. Juvenile Idiopathic Arthritis (JIA);
 - 1) Condylar Resorption
 - a) Idiopathic;
 - b) Progressive;
 - c. Metabolic Arthritis;
 - d. Infectious Arthritis

IV. Treatment

The appropriate choice of treatment for TMJD is based on the type and degree of the patient's masticatory joint/muscle disorder, the needs of the patient and the appropriate non-surgical and surgical options.

A. Conservative Management

1. Patient education
 - a. Dietary modifications such as regular soft diet
2. Pharmacological management
 - a. NSAIDS;
 - b. Muscle relaxants;
 - c. Sedatives;
 - d. Antidepressants;
 - e. Acupuncture and local analgesic trigger point injections for temporomandibular pain.



- i. Acute pain, twice per week for 2 weeks;
 - ii. Additional injections if pain persists and further improvement is expected;
- f. Intra-articular corticosteroid injection
3. Structured physical therapy program for TMJ dysfunction
 - a. Exercises;
 - b. Ultrasound;
 - c. Heat and cold packs
4. Behavioral therapy
 - a. Psychological counseling;
 - b. Relaxation therapy and Cognitive Behavioral Therapy (CBT)
5. Intra-oral splint or orthotic appliances - when there is documented evidence of clinically significant masticatory impairment, pain and/or loss of function. Replacement of intra-oral splints once their end of life is reached will require documentation of medical necessity.

V. Surgical Management

A patient with an established TMJD diagnosis and requesting invasive treatment must meet all required eligibility criteria.

Surgical management may be recommended for patients with TMJ disorder when there is evidence and documentation of clinically significant masticatory impairment, functional jaw limitation and/or loss of function and persistent pain, and whom 6 or more months of TMJD conservative treatment is ineffective, failed, or unresponsive.

A. The following surgical procedures may be considered medically necessary for the treatment of TMJD

1. Manipulation under anesthesia (for reduction of fracture or dislocation of the TMJ);
2. Arthrocentesis;
3. Arthroscopic surgery (diagnostic and operative);
4. Open arthroplasty with or without autograft;
5. Open arthroplasty with alloplast;
6. Disc repair or removal, with or without replacement;
7. Condylectomy;
8. Mandibular condylotomy; and
9. Orthognathic surgery

B. Temporomandibular Joint Arthroscopy

Temporomandibular joint arthroscopy may be indicated when **ALL** of the following criteria are met:

1. Imaging findings of osteoarthritis or internal derangement; and



2. TMJ pain is described as:
 - a. Localized and continuous; and
 - b. Moderate to severe; and
 - c. Worse during jaw function such as chewing or talking with documentation of functional problem (including patient's inability to chew, chews with pain, or TMJ pain due to anatomic deformity).
 3. TMJ symptoms are unresponsive to 6 or more months of **any** of the TMD conservative management techniques below with documentation that describes the nature of the non-surgical treatment, the results, and the specific findings associated with that treatment.
 - a. Patient education; or
 - b. Medications; or
 - c. Physical therapy; or
 - d. Behavioral therapy; or
 - e. Intraoral splint or orthotic appliance; **and**
 4. TMJ motion: jaw opening is restricted to less than 35 mm
- C. **Temporomandibular Joint Arthrotomy**
Temporomandibular joint arthrotomy may be indicated when **ALL** of the following are met:
1. All of the requirements in section V. A 1- 4 must be met; and
 2. TMJ symptoms is unresponsive to arthroscopy or unlikely to be responsive to arthroscopy due to severe internal derangement or arthritic changes
- D. **Temporomandibular (TMJ) joint modified condylotomy**
Temporomandibular (TMJ) joint modified condylotomy may be indicated in the presence of **ALL** of the following:
1. All of the criteria in section V. A 1- 3 must be met; and
 2. TMJ motion with little or no reduction in mouth opening; and
 3. Minimally invasive surgical procedures such as arthroscopy or arthrocentesis is not appropriate nor effective per supporting documentation from the treating oral surgeon.
- E. **Temporomandibular Joint Arthroplasty**
Temporomandibular joint arthroplasty may be indicated for **1 or more** of the following are met:
1. TMJ pain as indicated by **all** of the following:
 - a. All of the requirements in section V. A 1- 4 must be met; and
 - b. TMJ symptoms is unresponsive to arthroscopy or arthrotomy; or
 2. Documentation of any of the following conditions:
 - a. Ankylosis causing functional impairment that is unresponsive to nonsurgical treatment; or
 - b. Congenital deformity causing functional impairment that is unresponsive to nonsurgical treatment; or

- c. Failed prosthetic reconstruction with residual functional impairment, unresponsive to non-surgical treatment; or
- d. Post-traumatic mandibular condylar loss or damage causing functional impairment, unresponsive to non-surgical treatment; or
- e. Tumor removal and need for joint reconstruction.

VI. Exclusions

The following are considered experimental/investigational and not medically necessary for the diagnosis of or treatment of TMJD

A. Diagnostic Procedures

- 1. Arthroscopy purely for diagnostic purpose of TMJD;
- 2. Computerized mandibular scan;
- 3. Electromyography (EMG);
- 4. Joint vibration analysis;
- 5. Kinesiography;
- 6. Muscle testing;
- 7. Neuromuscular junction testing;
- 8. Range-of-motion measurements;
- 9. Somatosensory testing;
- 10. Standard dental radiographic procedures;
- 11. Thermography;
- 12. Transcranial or lateral skull x-rays;
- 13. Intraoral tracing or gnathic arch tracing (to demonstrate deviations in the jaw position associated with TMJD); and
- 14. Ultrasound

B. Non-surgical treatment

- 1. Biofeedback;
- 2. Botox;
- 3. Dental restorations/prostheses;
- 4. Devices that are promoted to develop muscles involved in jaw function and maintain joint range of motion;
- 5. Dextrose prolotherapy;
- 6. Electrogalvanic stimulation;
- 7. Hyaluronic acid;
- 8. Iontophoresis;
- 9. Orthodontic services;
- 10. Percutaneous electrical nerve stimulation (PENS);

11. Platelet concentrates (e.g., platelet rich plasma); and
12. Transcutaneous electrical nerve stimulation (TENS) (e.g., HCPCS E0720);

VII. Limitations

The following services are considered not covered under medical benefit for the diagnosis and/or treatment of TMJ

- A. Procedures that are purely orthodontic or cosmetic in nature, where no functional problems are documented;
- B. Services or treatments that are primarily dental-related such as dental care, filling, removal, or repair /replacement of teeth or structures that directly support the teeth;
- C. Any secondary procedures related to the teeth or structures directly supporting the teeth unless:
 1. The procedure is incident to and an integral part of a covered medically necessary primary service for treatment of a non-dental condition (e.g., tumor removal) and
 2. The service is to be performed at the same time as the covered primary service and by the same physician/dentist.
- D. Dental-related appliances such as dentures; and
- E. Extraction of teeth to prepare the jaw for radiation treatment of neoplastic disease

VIII. Definition

Temporomandibular Disease (TMD) is a collective term for a group of conditions associated with the head, neck, and jaw, also referred to as “**TMJ syndrome**” that describes jaw muscle related pain and function of the masticatory muscles and/or the jaw joint and typically respond to non-invasive management. However, there are pathologic conditions that directly affect the TMJ’s anatomical components that may require invasive management if unresponsive to conservative management.

Periodontium are anatomic structures that directly support the teeth including the gingivae, periodontal membrane, cementum of the teeth, and the alveolar bone (such as alveolar process and tooth sockets).



References

1. U.S. Food and Drug Administration. Temporomandibular Disorders (TMJ) Implants. July 07, 2021. Accessed 12/05/2022. <https://www.fda.gov/medical-devices/temporomandibular-disorders-tmd-devices/temporomandibular-joint-tmj-implants>
2. Kusiak, J. et al. The TMJ Patient-Led RoundTable: A History and Summary of Work as of May 11, 2018. http://mdepinet.org/wp-content/uploads/TMJ-Patient-RoundTable-Briefing-Report_9_25_18.pdf
3. Henrique Pinto-Borges, João Pinto, Oscar Carvalho, Bruno Henriques, Filipe Silva, José Gomes, Antonio Ramos, Júlio C.M. Souza. Stresses, friction, and wear on different materials and design for temporomandibular joint total joint replacement (TMJ TJR), Tribology International, Volume 178, Part A, 2023, 108051, ISSN 0301-679X, <https://doi.org/10.1016/j.triboint.2022.108051>.
<https://www.sciencedirect.com/science/article/pii/S0301679X22006223>
4. Yingshun Hu, Siyan Liu, Fang Fang. Arthrocentesis vs conservative therapy for the management of TMJ disorders: A systematic review and meta-analysis, Journal of Stomatology, Oral and Maxillofacial Surgery, 2022, 101283, ISSN 2468-7855 <https://doi.org/10.1016/j.jormas.2022.09.004>.
<https://www.sciencedirect.com/science/article/pii/S246878552200252X>
5. Al-Moraissi, E. A., Wolford, L. M., Ellis, E., 3rd, & Neff, A. (2020). The hierarchy of different treatments for arthrogenous temporomandibular disorders: A network meta-analysis of randomized clinical trials. Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery, 48(1), 9–23. <https://doi.org/10.1016/j.jcms.2019.10.004>
6. Dasukil S, Shetty SK, Arora G, Degala S. Efficacy of Prolotherapy in Temporomandibular Joint Disorders: An Exploratory Study. Journal of Maxillofacial and Oral Surgery. 2021 Mar;20(1):115-120. DOI: 10.1007/s12663-020-01328-9. PMID: 33584052; PMCID: PMC7855124.
<https://pubmed.ncbi.nlm.nih.gov/33584052/>
7. American Academy of Pediatric Dentistry (AAPD). Acquired temporomandibular disorders in infants, children, and adolescents. The Reference Manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2020:410-7. 5.
<https://www.aapd.org/research/oral-health-policies--recommendations/acquired-temporomandibular-disorders-in-infants-children-and-adolescents/>
8. Chellappa, D., & Thirupathy, M. (2020). Comparative efficacy of low-Level laser and TENS in the symptomatic relief of temporomandibular joint disorders: A randomized clinical trial. Indian journal of dental research : official publication of Indian Society for Dental Research, 31(1), 42–47.
https://doi.org/10.4103/ijdr.IJDR_735_18
9. Nagata, K., Hori, S., Mizuhashi, R., Yokoe, T., Atsumi, Y., Nagai, W., & Goto, M. (2019). Efficacy of mandibular manipulation technique for temporomandibular disorders patients with mouth opening limitation: a randomized controlled trial for comparison with improved multimodal therapy. Journal of prosthodontic research, 63(2), 202–209. <https://doi.org/10.1016/j.jpor.2018.11.010>
10. Sousa, B. M., López-Valverde, N., López-Valverde, A., Caramelo, F., Fraile, J. F., Payo, J. H., & Rodrigues, M. J. (2020). Different Treatments in Patients with Temporomandibular Joint Disorders: A Comparative Randomized Study. Medicina (Kaunas, Lithuania), 56(3), 113.
<https://doi.org/10.3390/medicina56030113>
11. Brochado, F. T., Jesus, L. H., Carrard, V. C., Freddo, A. L., Chaves, K. D., & Martins, M. D. (2018). Comparative effectiveness of photobiomodulation and manual therapy alone or combined in TMD



- patients: a randomized clinical trial. *Brazilian oral research*, 32, e50. <https://doi.org/10.1590/1807-3107bor-2018.vol32.0050>
12. Wänman, A., & Marklund, S. (2020). Treatment outcome of supervised exercise, home exercise and bite splint therapy, respectively, in patients with symptomatic disc displacement with reduction: A randomised clinical trial. *Journal of oral rehabilitation*, 47(2), 143–149. <https://doi.org/10.1111/joor.12888>
 13. Aisaiti, A., Zhou, Y., Wen, Y., Zhou, W., Wang, C., Zhao, J., Yu, L., Zhang, J., Wang, K., & Svensson, P. (2021). Effect of photobiomodulation therapy on painful temporomandibular disorders. *Scientific reports*, 11(1), 9049. <https://doi.org/10.1038/s41598-021-87265-0>
 14. Brandão, R. A. F. S., Mendes, C. M. C., Lopes, T. D. S., Brandão Filho, R. A., & Sena, E. P. (2021). Neurophysiological aspects of isotonic exercises in temporomandibular joint dysfunction syndrome. *CoDAS*, 33(3), e20190218. <https://doi.org/10.1590/2317-1782/20202019218>
 15. Li, W., & Wu, J. (2020). Treatment of Temporomandibular Joint Disorders by Ultrashort Wave and Extracorporeal Shock Wave: A Comparative Study. *Medical science monitor : international medical journal of experimental and clinical research*, 26, e923461. <https://doi.org/10.12659/MSM.923461>
 16. Melo, R. A., de Resende, C. M. B. M., Rêgo, C. R. F., Bispo, A. S. L., Barbosa, G. A. S., & de Almeida, E. O. (2020). Conservative therapies to treat pain and anxiety associated with temporomandibular disorders: a randomized clinical trial. *International dental journal*, 70(4), 245–253. <https://doi.org/10.1111/idj.12546>
 17. Saranya, B., Ahmed, J., Shenoy, N., Ongole, R., Sujir, N., & Natarajan, S. (2019). Comparison of Transcutaneous Electric Nerve Stimulation (TENS) and Microcurrent Nerve Stimulation (MENS) in the Management of Masticatory Muscle Pain: A Comparative Study. *Pain research & management*, 2019, 8291624. <https://doi.org/10.1155/2019/8291624>
 18. Johnston, K., Bird, L., & Bright, P. (2015). Temporomandibular joint effusion and its relationship with perceived disability assessed using musculoskeletal ultrasound and a patient-reported disability index. *Ultrasound (Leeds, England)*, 23(2), 90–96. <https://doi.org/10.1177/1742271X14568608>
 19. Clinical Affairs Committee – Temporomandibular Joint Problems in Children Subcommittee. Guideline on Acquired Temporomandibular Disorders in Infants, Children, and Adolescents. 1999, 2002, 2006, 2010. https://www.aapd.org/assets/1/7/G_TMD.pdf
 20. Gopi, I, Muthukrishnan, A, Maragathavalli G. Clinical Practice Guidelines for the Management of Temporomandibular Joint Disorders – A Review. *Jemds.com* https://www.jemds.com/data_pdf/Indra%20Gopi--Issue%2033--Rev%20arti-.pdf
 21. American Association of Oral and Maxillofacial Surgeons (AAOMS). Reznick, C. et al. An Algorithm for Management of Dentofacial Deformity Resulting From Juvenile Idiopathic Arthritis: Results of a Multinational Consensus Conference. *Anesthesia/TMJ Disorders/Facial Pain*. Volume 77. Issue 6, p1152. E1-1152.E33, June 01, 2019. DOI: <https://doi.org/10.1016/j.joms.2019.02.014>
 22. American Association of Oral and Maxillofacial Surgeons. Clinical Condition Statements. Temporomandibular Disorders. 2017. https://www.aaoms.org/docs/practice_resources/clinical_resources/tmd_disorders.pdf
 23. American Academy of Pediatric Dentistry (AAPD). Acquired temporomandibular disorders in infants, children, and adolescents. *The Reference Manual of Pediatric Dentistry*. Chicago, Ill.: American



Academy of Pediatric Dentistry; 2020:410-7. 5.

https://www.aapd.org/media/Policies_Guidelines/BP_TempDisorders.pdf

24. Al-Moraissi, E. A., Wolford, L. M., Ellis, E., 3rd, & Neff, A. (2020). The hierarchy of different treatments for arthrogenous temporomandibular disorders: A network meta-analysis of randomized clinical trials. *Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery*, 48(1), 9–23. <https://doi.org/10.1016/j.jcms.2019.10.004>
25. American Society of Temporomandibular Joint Surgeons. Surgical Management of TMJ Disorders <https://astmjs.org/tmd-general-information/>
26. Al-Moraissi EA. Open versus arthroscopic surgery for the management of internal derangement of the temporomandibular joint: a meta-analysis of the literature. *International Journal of Oral and Maxillofacial Surgery* 2015;44(6):763-770. DOI: 10.1016/j.ijom.2015.01.024.
27. Schiffman, E., Ohrbach, R., Truelove, E., Look, J., Anderson, G., Goulet, J. P., List, T., Svensson, P., Gonzalez, Y., Lobbezoo, F., Michelotti, A., Brooks, S. L., Ceusters, W., Drangsholt, M., Ettlin, D., Gaul, C., Goldberg, L. J., Haythornthwaite, J. A., Hollender, L., Jensen, R., ... Orofacial Pain Special Interest Group, International Association for the Study of Pain (2014). 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†. *Journal of oral & facial pain and headache*, 28(1), 6–27. <https://doi.org/10.11607/jop.1151>
28. National Institute of Dental and Craniofacial Research (NIDCR). Temporomandibular Disorders (Reviewed March 2023), Deconstructing TMJD Classifiers at the Single Cell Level (Reviewed 2019) and Prevalence of TMJD and its Signs and Symptoms (Reviewed July 2018). Accessed 1/4/2024 <https://www.nidcr.nih.gov/health-info/tmd>
29. MCG edition. Copyright 2024 MCG Health, LLC. Temporomandibular Joint Arthroplasty: ACG: A-0523 (AC); Temporomandibular Joint Arthroscopy ACG: A-0492 (AC); Temporomandibular Joint Arthrotomy ACG: A-0522 (AC); and Temporomandibular Joint Modified Condylotomy: ACG: A-0521 (AC). Accessed: 1/4/2024
30. Tatli, U., Benlidayi, M. E., Ekren, O., & Salimov, F. (2017). Comparison of the effectiveness of three different treatment methods for temporomandibular joint disc displacement without reduction. *International journal of oral and maxillofacial surgery*, 46(5), 603–609. <https://doi.org/10.1016/j.ijom.2017.01.018>



**Treatment of Temporomandibular Disorders
(TMD) or Temporomandibular Joint Syndrome
(TMJD) Medical Coverage Policy**

Approval History

Effective June 01, 2016, state filing is no longer required per Maryland House Bill [HB 798](#) – Health Insurance – Reporting

Date approved by RUMC	Date of Implementation
04/25/2023	04/25/2023
04/25/2024	04/25/2024

*The Regional Utilization Management Committee received delegated authority in 2011 to review and approve designated Utilization Management and Medical Coverage Policies by the Regional Quality Improvement Committee.

Note: Kaiser Permanente Mid-Atlantic States (KPMAS) include referral and authorization criteria to support primary care and specialty care practitioners, as appropriate, in caring for members with selected conditions. Medical Coverage Policies are not intended or designed as a substitute for the reasonable exercise of independent clinical judgment by a practitioner in any particular set of circumstances for an individual member.

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