

Corporate Medical Policy

Temporomandibular Joint Dysfunction (TMJD)

File Name:	temporomandibular_joint_dysfunction_(tmjd)
Origination:	1/1996
Last CAP Review:	10/2011
Next CAP Review:	10/2012
Last Review:	10/2011

Description of Procedure or Service

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

Background

Temporomandibular joint (TMJ) dysfunction (also known as TMJ disorders) refers to a cluster of problems associated with the temporomandibular joint and musculoskeletal structures. The etiology of TMJ disorders remains unclear and is believed to be multifactorial. TMJ disorders are often divided into two main categories; articular disorders (e.g., ankylosis, congenital or developmental disorders, disk derangement disorders, fractures, inflammatory disorders, osteoarthritis and joint dislocation) and masticatory muscle disorders (e.g., myofascial pain, myofibrotic contracture, myospasm and neoplasia).

There are no generally accepted criteria for diagnosing TMJ disorders. It is often a diagnosis of exclusion, and involves physical examination, patient interview, and dental record review. Diagnostic testing and radiologic imaging is generally only recommended for patients with severe and chronic symptoms.

Symptoms attributed to TMJD are varied 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).

For many patients, symptoms of TMJ dysfunction are short-term and self-limiting. Conservative treatments such as eating soft foods, rest, heat, ice, and avoiding extreme jaw movements, and anti-inflammatory medication, are recommended prior to consideration of more invasive and/or permanent therapies such as surgery.

*****Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.**

Policy

BCBSNC will provide coverage for the evaluation and treatment of Temporomandibular joint (TMJ) dysfunction when it is determined to be medically necessary because the medical criteria and guidelines shown below are met. Also see Policy Guidelines.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's

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Benefit Booklet for availability of benefits. **Member's benefits may vary according to benefit design, and may include or exclude services commonly recommended for the evaluation and treatment of Temporomandibular Joint Dysfunction, such as, but not limited to, bite splints or oral orthotic appliances, physical therapy, and/or TMJ surgery. Braces and orthodontic treatment of TMJD are considered dental therapy and are not eligible under medical benefits. Therefore, member benefit language should be reviewed before applying the terms of this medical policy.**

Treatment of TMJ included in this policy may require prior review (prior plan approval).

When Evaluation and Treatment of Temporomandibular Joint Dysfunction (TMJD) is covered

A. Diagnostic procedures.

MRI may be considered medically necessary when **both** of the following criteria are met:

- 1) Conservative measures noted above have not resolved signs and/or symptoms; **and**
- 2) The results of the MRI will impact decisions regarding surgical intervention.

Note: MRI may require prior review by BCBSNC's diagnostic imaging management program.

B. Non-surgical treatments.

Short term physical therapy, occlusal splints (orthotics), and arthrocentesis may be considered medically necessary when **both** of the following criteria are met:

- 1) Significant clinical symptoms and signs are present, including **at least two** of the following:
 - (a) Extra-articular pain related to muscles of the head and neck region, or earaches, headaches, masticatory or cervical myalgias;
 - (b) Painful chewing;
 - (c) Restricted range of motion, manifested by **one** of the following:
 - (i) interincisal opening of less than 35 mm. (greatest distance between front upper teeth and lower front teeth when mouth is wide open); **or**
 - (ii) lateral excursive movement of less than 4 mm. (side to side movement); **or**
 - (iii) protrusive excursive movement of less than 4 mm. (front to back motion); **or**
 - (iv) deviation on opening of greater than 5 mm. **and**
- 2) Symptoms are not resolved by conservative treatment, including **all** of the following:
 - (a) Removal of precipitating activities (gum chewing, eating hard candies); **and**
 - (b) Pharmacological treatment (such as anti-inflammatory or analgesic medications (2 week trial); **and**
 - (c) 2 week trial of soft diet and proper chewing techniques.

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C. Surgical treatments.

- 1) TMJ Surgery May be considered medically necessary when **all** of the following criteria are met:
 - a) Signs and symptoms not resolved by conservative measures including standard splints (unless contra- indicated, e.g., anterior open bite and some Class III malocclusions), pharmacological treatment and physical therapy (unless contra- indicated); **and**
 - b) MRI or other radiology studies document TMJ abnormality noted in Stage III-V below; **and**
 - c) Underlying orthodontic disorders have been ruled out, or if present, treatment has been implemented (history, physical, and/or laboratory results must be documented with an assessment of the presence or absence of an orthodontic disorder).
- 2) The following surgical procedures may be considered medically necessary in the treatment of TMJD:
 - a) Arthroscopic surgery in patients with objectively demonstrated (by physical examination or imaging) internal derangements (displaced discs) or degenerative joint disease who have failed conservative treatment.
 - b) Open surgical procedures including, but not limited to, arthroplasties; condylectomies; meniscus or disc placcation and disc removal when TMJD is the result of congenital anomalies, trauma, or disease in patients who have failed conservative treatment.
 - c) Arthrotomy with total prosthetic joint replacement using the TMJ Concepts Patient Fitted TMJ Reconstruction Prosthesis TM is indicated for reconstruction of the TMJ for treatment of end-stage TMJ disease, when no other viable therapeutic alternatives are available.
 - 1) Patients should be considered for total prosthetic joint replacement if they have **one or more** of the following conditions:
 - (i) Inflammatory arthritis involving the TMJ not responsive to other modalities of treatment;
 - (ii) Recurrent fibrous and/or bony ankylosis not responsive to other modalities of treatment;
 - (iii) Failed tissue graft;
 - (iv) Failed alloplastic joint reconstruction;
 - (v) Loss of vertical mandibular height and/or occlusal relationship due to bone resorption, trauma, developmental abnormality, or pathologic lesion.
 - 2) Total prosthetic joint replacement **should not** be used for patients with **one or more** of the following conditions:
 - (i) Active or suspected infections in or about the implantation site;
 - (ii) Uncontrollable masticatory muscle hyperfunction (clenching or grinding) which may lead to overload and loosening of screws;
 - (iii) Known allergy to any of the component materials.
 - d) Orthognathic Surgery – addressed in separate policy titled “Orthognathic Surgery.”

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- e) Therapeutic manipulation of the TMJ requiring anesthesia (i.e., general or monitored anesthesia care) for reduction of fracture or dislocation of the TMJ.

STAGE	CLINICAL	IMAGING	SURGICAL
I EARLY	Painless clicking No restricted motion.	Minimally displaced disc-Normal osseous contours	Normal disc form - Slight displacement - Passive incoordination (clicking)
II EARLY INTERMEDIATE	Occasional painful clicking- Intermittent locking - Headaches	Early disc deformity and displacement. Normal osseous contours	Disc displacement - Thickened disc
III INTERMEDIATE	Frequent pain - Joint tenderness - Headaches - Locking- Restricted motion* - Painful chewing	Disc displacement - Moderate to marked disc thickening - Normal osseous contours	Disc deformed & displaced – Variable adhesions - No bone changes
IV INTERMEDIATE TO LATE	Chronic pain - Headache - Restricted motion	Disc displacement- Marked disc thickening-Abnormal bone contours	Degenerative remodeling of bony surfaces-Osteophytes Adhesions-Deformed disc without perforation
V LATE	Variable pain-Joint crepitus-Painful function	Disc displacement with disc perforation and gross deformity- Degenerative osseous changes	Gross degenerative changes of disc and hard tissues- Disc perforation-Multiple adhesions

*See under “When Covered”- A.

When Evaluation and Treatment of Temporomandibular Joint Dysfunction (TMJD) is not covered

1. Evaluation and treatment of temporomandibular joint dysfunction is considered not medically necessary when criteria are not met for the diagnostic tests and procedures addressed above.
2. The following diagnostic procedures are considered **investigational** in the diagnosis of TMJ dysfunction:
 - Electromyography (EMG), including surface EMG;
 - Kinesiography;
 - Thermography;
 - Neuromuscular junction testing;
 - Somatosensory testing;
 - Intra-oral tracing or gothic arch tracing (intended to demonstrate deviations in the positioning of the jaws that are associated with TMJ dysfunction);
 - Muscle testing;
 - Computerized mandibular scan (this measures and records muscle activity related to movement and positioning of the mandible and is intended to detect deviations in occlusion and muscle spasms related to TMJ dysfunction);
 - Arthroscopy of the TMJ for purely diagnostic purposes;
 - Ultrasound imaging/sonogram;

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3. The following *non-surgical treatments* are considered **investigational** in the treatment of TMJ dysfunction:

- Electrogalvanic stimulation;
- Iontophoresis;
- Biofeedback;
- Ultrasound;
- Devices promoted to maintain joint range of motion and to develop muscles involved in jaw function;
- Transcutaneous electrical nerve stimulation (TENS);
- Percutaneous electrical nerve stimulation (PENS);

4. The following surgical treatments are considered **investigational** in the treatment of TMJ dysfunction:

- a) Total joint replacement with the TMJ Fossa-Eminence/Condylar Prosthesis System™
- b) Partial joint replacement with the TMJ Fossa-Eminence Prosthesis™

5. Surgical treatment for Stage I and II TMJD symptoms (see table above) is considered not medically necessary.

Policy Guidelines

At the present time, there is insufficient evidence in the published medical literature to demonstrate the safety, efficacy and long-term outcomes of the TMJ Fossa-Eminence/Condylar Prosthesis System™ for total joint replacement or the TMJ Fossa-Eminence Prosthesis™ for partial joint replacement. [Refer to separate policy, Investigational (Experimental) Services.]

The most recent literature review from April 2010 through April 2011 noted that changes in ultrasound technology over time were taken into consideration, however, study findings were contradictory. There were unexplained differences between studies, and the conclusion was that there is insufficient evidence that ultrasound is sufficiently accurate and reliable for use in diagnosing TMJ disorders.

For the intent of this policy, arthrocentesis for closed [jaw] lock (disc displacement without reduction) is considered advanced conservative management rather than a surgical procedure, and therefore does not need to meet the criteria for surgical treatment of temporomandibular joint dysfunction discussed in this policy.

For arthritic disorders affecting the temporomandibular joint, activity of the systemic disease should be considered prior to surgical intervention. In general, when the systemic disease is controlled with appropriate treatment, the medical necessity criteria outlined for internal derangement can be applied.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in

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the Category Search on the Medical Policy search page.

Applicable Codes: 20605, 21010, 21050, 21060, 21070, 21073, 21240, 21242, 21243, 29800, 29804, 21116

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

In addition to medical records, a letter of medical necessity is required for all requests for TMJ surgery and should include a detailed history of the condition, diagnostic imaging results and documentation of prior medical and surgical treatment.

Scientific Background and Reference Sources

From policy entitled: Temporomandibular Joint Dysfunction (TMJD) Treatment

Guidelines for Diagnosis and Management of Disorders involving the Temporomandibular joint and related musculoskeletal structures, Am Soc TMJ surgeons and Am Soc of Maxillofac Surg, 1992

AAOMS Parameters of Care, Temporomandibular Joint Surgery, AM Assoc Of Oral and Maxillofacial Surgeons, 1995

Tucker MR, Thomas EM. Temporomandibular disorders and dentofacial skeletal deformities. Selected Readings in Oral and Maxillofac Surg. 4:1-46, 1995.

Oral Surgery Consultant Panel - 10/99

Medical Policy Advisory Group - 12/99

Specialty Matched Consultant Advisory Panel - 5/2001

BCBSA Medical Policy Reference Manual - Review date 4/15/02 - Policy 2.01.21

BCBSA Medical Policy Reference Manual - Review date 4/29/03 - Policy 2.01.21

Specialty Matched Consultant Advisory Panel - 5/2003

Specialty Matched Consultant Advisory Panel - 5/2005

American Society of Temporomandibular Joint Surgeons. Guidelines for diagnosis and management of disorders involving the temporomandibular joint and related musculoskeletal structures. Dec 2000. Retrieved on April 28, 2006 from <http://www.astmjs.org/guidelines.html>

National Institutes of Health (NIH). Technology Assessment Conference Statement - Management of Temporomandibular Disorders. Bethesda, MD: NIH; April 29-May 1, 1996. Retrieved on April 10, 2006 from <http://consensus.nih.gov/1996/1996TemporomandibularDisorders018html.htm>

National Institutes of Health (NIH), National Institute of Dental and Craniofacial Research. TMD. Temporomandibular Disorders. NIH Publication No. 94-3487. Bethesda, MD: NIH; 2000. Retrieved on May 16, 2006 from <http://www.nidcr.nih.gov/HealthInformation/DiseasesAndConditions/TMDTMJ/TMD.htm>

U.S. Food and Drug Administration. Dental products panel meeting summaries. May 10-11, 1999.

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Retrieved on April 28, 2006 from <http://www.fda.gov/cdrh/panel/summary/dpp051099.html>

U.S. Food and Drug Administration. TMJ Concepts Patient-Fitted TMJ Reconstruction Prosthesis System. P980052 summary of safety and effectiveness. Retrieved on April 10, 2006 from <http://www.fda.gov/cdrh/pdf/P980052b.pdf>

U.S. Food and Drug Administration. TMJ Implants, Inc. warning letter. February 24, 2004. Retrieved on May 16, 2006 from http://www.fda.gov/foi/warning_letters/g4563d.htm

U.S. Food and Drug Administration. TMJ Implants-A Consumer Informational Update. April 2001. Retrieved on April 10, 2006 from <http://www.fda.gov/cdrh/consumer/tmjupdate.html>

U.S. Food and Drug Administration. TMJ Implants, Inc. partial temporomandibular joint replacement system. Summary of safety and effectiveness. Retrieved on April 10, 2006 at <http://www.fda.gov/cdrh/pdf/P000035b.pdf>

U.S. Food and Drug Administration. TMJ Implants, Inc. Total temporomandibular joint replacement system. Summary of safety and effectiveness. Retrieved on April 10, 2006 from <http://www.fda.gov/cdrh/pdf/p000023.html>

Specialty Matched Consultant Advisory Panel - 5/2007

Policy retitled: Temporomandibular Joint Dysfunction

Specialty Matched Consultant Advisory Panel- 11/2009

BCBSA Medical Policy Reference Manual [Electronic Version] 2.01.21, 6/10/2010

Specialty Matched Consultant Advisory Panel 10/2011

BCBSA Medical Policy Reference Manual [Electronic Version] 2.01.21, 7/14/2011

Policy Implementation/Update Information

From policy entitled: Temporomandibular Joint Dysfunction (TMJD) Treatment

1/96	Original policy issued
8/99	Adjustments in Range of Motion of the TMJ. Arthroscopy of TMJ policy archived.
9/99	Reformatted, Description of Procedure or Service changed, Medical Term Definitions added.
10/00	Oral Surgery Consultant Panel
12/99	Medical Policy Advisory Group
10/00	System coding changes.
11/00	Phrase "unless contraindicated" added concerning physical therapy under When TMJ Dysfunction is covered in the TMJ surgery section. Criteria renumbered for clarity in the Short term physical therapy and occlusal splints section of when TMJ is covered.
5/01	Specialty Matched Consultant Advisory Panel review (5/2001). No change to policy.

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- 10/03 Specialty Matched Consultant Advisory Panel review (5/30/2003). No changes to criteria. Typos corrected. Revised Benefits Application and Billing/Coding sections. Code DM295 removed from Billing/Coding section (no longer a valid code).
- 6/2/05 Specialty Matched Consultant Advisory Panel review - 5/13/05. No changes to criteria.
- 4/10/06 Added CPT code 21010 to Billing/Coding section.
- 6/5/06 Additional information added to "Description" section. Under "When Covered", added: (C.4.a&b.) C.4.) Arthrotoomy with total prosthetic joint replacement using the TMJ Concepts Patient-Fitted TMJ Reconstruction Prosthesis™ - This procedure is indicated for reconstruction of the TMJ for treatment of end-stage TMJ disease, when no other viable therapeutic alternatives are available. a.) Patients should be considered if they have one or more of the following conditions: Inflammatory arthritis involving the TMJ not responsive to other modalities of treatment, recurrent fibrous and/or bony ankylosis not responsive to other modalities of treatment, failed tissue graft, failed alloplastic joint reconstruction, loss of vertical mandibular height and/or occlusal relationship due to bone resorption, trauma, developmental abnormality, or pathologic lesion. b.) Total prosthetic joint replacement should not be used for patients with one or more of the following conditions: Active or suspected infections in or about the implantation site, uncontrollable masticatory muscle hyperfunction (clenching or grinding) which may lead to overload and loosening of screws, known allergy to any of the component materials. (F. Arthrocentesis) reworded: "For the intent of this policy, arthrocentesis for closed [jaw] lock (disc displacement without reduction) is considered advanced conservative management rather than a surgical procedure, and does not need to meet the criteria above." Under "When not Covered", added total joint replacement with the TMJ Fossa-Eminence/Condylar Prosthesis System™ or partial joint replacement with the TMJ Fossa-Eminence Prosthesis™ are not covered. Both devices are considered investigational and BCBSNC does not cover investigational services. Under "Policy Guidelines", added: "At the present time, there is insufficient evidence in the published medical literature to demonstrate the safety, efficacy and long-term outcomes of the TMJ Fossa-Eminence/Condylar Prosthesis System™ for total joint replacement or the TMJ Fossa-Eminence Prosthesis™ for partial joint replacement. (Refer to separate policy number MED1263, Investigational (Experimental) Services.)". Under Billing/Coding/Physician Documentation, added: "In addition to medical records, a letter of medical necessity is required for all requests for TMJ surgery and should include a detailed history of the condition, diagnostic imaging results and documentation of prior medical and surgical treatment." Key words, medical term definitions and reference sources added. Notification given 6/5/06. Effective date 8/7/06. (pmo)
- 6/18/07 Specialty Matched Consultant Advisory Panel review. No changes to criteria. Reference source added. (pmo)
- 12/31/07 Under "When Covered" added "Therapeutic manipulation of the TMJ requiring anesthesia (i.e., general or monitored anesthesia care) is covered for reduction of fracture or dislocation of the TMJ. Other indications will be reviewed on an individual consideration basis." Under "Billing/Coding" added new CPT code 21073 effective January 1, 2008. (pmo)

See Also: Orthognathic Surgery Policy

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- 6/22/10 Policy Number(s) removed (amw)
- 10/26/10 CPT code 21116 (injection procedure for TMJ arthrography) added to "Billing/Coding" section. Additional information added to the Description section. Under "When Covered" Section B: MRI is considered medically necessary changed to **may be**

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considered medically necessary; Section C. TMJ Surgery added pharmacological treatment to criteria for medical necessity; Section D. Added arthroscopic coverage criteria. Under "When Not Covered" added Acupuncture as not covered/investigational. Also added Arthroscopy of the TMJ for purely diagnostic purposes is not covered. Specialty Matched Consultant Advisory Panel 1/2010. Reviewed with Senior Medical Director 8/2010. References added. (lpr)

- 11/22/11 Extensive revisions, renumbering and bulleting under "When Not Covered and Covered Sections." Under "When Not Covered" section added: ultrasound imaging and sonogram. Removed statement "Braces and orthodontic treatment of TMJD are considered dental therapy and are not eligible under medical benefits" from Policy section. Specialty Matched Consultant Advisory Panel 10/26/2011. (lpr)

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.