Medical Coverage Policy

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Temporomandibular Joint (TMJ) Disorder Surgery

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INSTRUCTIONS FOR USE

The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, 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 customer'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 customer's benefit plan document always supersedes 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 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. Each coverage request should be reviewed on its own merits. Medical directors are expected to exercise clinical judgment where appropriate and have discretion in making individual coverage determinations. Where coverage for care or services does not depend on specific circumstances, reimbursement will only be provided if a requested service(s) is submitted in accordance with the relevant criteria outlined in the applicable Coverage Policy, including covered diagnosis and/or procedure code(s). Reimbursement is not allowed for services when billed for conditions or diagnoses that are not covered under this Coverage Policy (see "Coding Information" below). When billing, providers

must use the most appropriate codes as of the effective date of the submission. Claims submitted for services that are not accompanied by covered code(s) under the applicable Coverage Policy will be denied as not covered. 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. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Overview

This Coverage Policy addresses surgical procedures for temporomandibular joint (TMJ) disorder. This Coverage Policy is not intended to address procedures performed on the temporomandibular joint for indications other than TMJ disorder.

Coverage Policy

Coverage for the treatment of temporomandibular joint (TMJ) disorder varies across plans. Refer to the customer's benefit plan document for coverage details.

Many medical plans do not cover orthodontic treatment provided as an adjunct to the surgical or non-surgical management of temporomandibular joint (TMJ) disorder, because such treatment is considered dental in nature and, therefore, not covered under the medical benefit.

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.

Arthrocentesis
Arthrocentesis for temporomandibular joint (TMJ) disorder is considered medically necessary when EITHER of the following criteria is met:

- Pain persists despite at least six weeks of noninvasive therapies such as pharmacologic pain control, physical therapy and the use of intra-oral appliances.
- Clinical examination and/or diagnostic imaging indicate the presence of hypomobility of the temporomandibular joint and symptoms persist despite at least six weeks of noninvasive therapy such as physical therapy and the use of intra-oral appliances.

Arthroscopy
Arthroscopy for TMJ disorder is considered medically necessary when BOTH of the following criteria are met:

- Pain or significant hypomobility persists despite at least six weeks of scientifically recognized noninvasive therapies such as pharmacologic pain control, physical therapy and the use of intra-oral appliances.
- Clinical examination and diagnostic imaging indicate the presence of joint pathology that requires internal structural modification.

Arthrotomy or Arthroplasty
Arthrotomy or arthroplasty for the treatment of TMJ disorder is considered medically necessary when the criteria for arthroscopy listed above are met but arthroscopy is not

technically feasible, appropriate, or has previously failed to resolve the problem being treated.

Arthroplasty with a total or partial prosthetic temporomandibular joint replacement is considered medically necessary when ANY of the following criteria is met, and the indication for surgery is confirmed by magnetic resonance imaging (MRI), computed tomography (CT) or corrected tomogram:

- inflammatory arthritis involving the TMJ not responsive to other modalities of treatment
- recurrent fibrosis and/or bony ankylosis not responsive to other modalities of treatment
- failed tissue graft
- failed alloplastic joint reconstruction
- loss of vertical mandibular condylar height due to bone resorption, trauma, developmental abnormality or pathologic lesion

Health Equity Considerations

Health equity is the highest level of health for all people; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which people are born, grow, live, work, and age.

Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include safe housing, transportation, and neighborhoods; racism, discrimination and violence; education, job opportunities and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

The prevalence of temporomandibular joint disorder symptoms varies widely across studies depending on the assessment used and the population studied. Based on one analysis of 2017–2018 data, an estimated 4.8 percent of U.S. adults (an estimated 11.2 to 12.4 million U.S. adults) had pain in the region of the temporomandibular joint that could be related to temporomandibular joint disorders (TMDs). Prevalence was elevated approximately two-fold in females compared to males, in white individuals compared to Asian Americans, and in individuals in low-income households compared with those in high-income households. Subjective data identified decreased quality of life from alterations in activities of daily living, disruption of work and social life, poor sleep, and other disrupted activities (National Academies of Science, Engineering and Medicine, 2020).

General Background

The temporomandibular joint (TMJ) connects the jawbone to the skull, and acts like a sliding hinge to assist with movements like speaking and chewing. People have two temporomandibular joints – one joint on each side of the jaw. The TMJ is a fibrocartilaginous joint, with a capsule, an articular disc (meniscus), and synovial membranes. Temporomandibular disorder (TMD) is a collective term, which describes clinical problems that involve the function of the muscles used for chewing (masticatory muscles) and the jaw joint. TMD has been used to refer to a group of conditions that are often called "TMJ syndrome" by physicians and dentists to describe the pain associated with the head, neck, and jaw. This may result in confusion regarding diagnostic and treatment options, as TMJ refers only to the temporomandibular joint.

Approximately 15-25% of the population exhibit symptoms of a temporomandibular disorder during their lifetime, typically occurring around 20-40 years of age. Women are affected more

often than men. Symptoms generally affect only one side, occurring in either side with similar frequency (Insalaco, 2025).

There are three classifications of temporomandibular disorders:

- Disorders of the joint (intra-articular disorders)
  - conditions involving the bones and/or meniscus
  - may be due to internal derangement, bone destruction (degenerative joint disease), rheumatoid arthritis, mandibular dislocation, neoplasia, ankylosis, condylar hyper- or hypoplasia, condylar osteolysis, or fracture
  - may have pain at the joint; a popping, clicking, or snapping noise when opening and closing the mouth; or jaw locking (mouth cannot open all the way)
- Disorders of the masticatory (chewing) muscles (non-articular disorders)
  - localized pain that may worsen with pressure, and/or spread beyond the initial painful area
  - may be due to teeth clenching or grinding (e.g., in response to stress); myofascial pain syndrome
- Headaches associated with a temporomandibular disorder

The initial presentation may be confusing, as a person may have more than one associated condition at a time (e.g., both a masticatory problem and a joint disorder) (National Institute of Dental and Craniofacial Research [NIDCR], 2024; International Classification of Orofacial Pain [ICOP], 2020; American Association of Oral and Maxillofacial Surgeons [AAOMS], 2024).

Diagnosis

There is no widely accepted standard test to diagnose TMD. In the majority of cases, the patient's history, signs and symptoms, combined with a physical examination of the face and jaw, provide sufficient information to diagnose these disorders. Routine x-rays may be used to identify underlying osteoarthritis or other bony abnormalities of the TMJ. Arthrography, magnetic resonance imaging (MRI) and computed tomography (CT) are generally not indicated, although selected studies may be appropriate for persistent TMD when clinical examination indicates the presence of internal derangement and surgery is being considered (Nale and Tucker, 2019).

Treatment

Noninvasive, reversible therapies are used in the initial treatment of symptomatic TMD. In many cases, TMD is self-limiting and often responds to simple measures such as eating soft foods, applying heat or ice, and avoiding extreme jaw movements (e.g., wide yawning, gum chewing). Other conservative treatments may include:

- Pharmacological pain control: Nonsteroidal anti-inflammatory drugs (NSAIDs), opiates, muscle relaxants and low-dose antidepressants may be useful for symptom management.
- Physical therapy: A variety of modalities may be employed, including active or passive jaw movement, application of heat/ice and vapocoolant spray followed by gentle stretching.
- Intra-oral appliances: The two most common intra-oral appliances are stabilization splints and anterior positioning appliances. Stabilization splints may be used to provide joint stabilization, reduction of pressure within the joint and relaxation of elevator muscles. These appliances should not create major alteration in occlusion, since these changes may be irreversible and lead to other problems. Anterior positioning appliances, also called orthopedic repositioning appliances, are used for acute joint pain, painful crepitus and symptoms associated with acute limitation of motion caused by an anteriorly displaced disc without reduction (closed lock).

Surgery is only considered if there is persistent pain and functional limitations in patients with structural anatomic pathology or TMJ intraarticular disorders that do not respond to a reasonable course of nonsurgical interventions.

Literature Review

Arthrocentesis: This is a minimally invasive procedure that involves insertion of one or two needles into the joint (no skin incisions are made). The joint is washed to remove debris and inflammatory byproducts. Some surgeons will also manipulate the joint under anesthesia and/or inject a therapeutic medication in the joint. The procedure is intended to increase range of motion and function and reduce pain. Arthrocentesis is performed on an outpatient basis under local anesthesia and is an established treatment option for persistent symptoms (e.g., pain) following failed conservative treatment (Thorpe, et al., 2023; Al-Moraissi, et al., 2020; Laskin, 2018; AAOMS, 2017; Vos, et al., 2014).

Arthroscopy: Arthroscopy of the TMJ is a surgical procedure that provides direct visualization of joint function and allows confirmation of intra-articular pathology that cannot be confirmed by other means of evaluation. It is intended to reduce pain and increase mandibular range of motion. It may be indicated when joint pathology is refractory to medical treatment and requires internal structural modifications. Arthroscopy may be used to treat internal derangement, hypomobility secondary to intra-joint adhesions, synovitis, degenerative joint disease and hypermobility causing painful subluxation or dislocation. Arthroscopy is performed under general anesthesia and in many cases can be performed on an outpatient basis. Arthroscopy is an established treatment option for persistent symptoms (e.g., pain) following failed conservative treatment (Al-Moraissi, et al., 2020; Hossameldin and McCain, 2018; AAOMS, 2017; Al-Moraissi, 2015).

Arthrotomy: Arthrotomy is the most invasive surgical technique used to treat TMD. Arthrotomy is performed under general anesthesia on an outpatient or inpatient basis. The following surgical procedures are carried out through arthrotomy:

- Disc Surgery: In cases where the joint problem is in the disc itself, the surgeon may recommend a procedure to reposition (disc plication), remove (discectomy), or replace (disk replacement) the diseased cartilage.
- Arthroplasty: A procedure aimed at removing adhesions, bone spurs, and other growths in the jaw that are causing joint dysfunction and pain.
- Joint Replacement: The TMJ can be replaced partially or completely. Individuals with end-stage pathology and severe physiologic dysfunction benefit most from partial or total joint replacement.

There is inadequate guidance in the published medical literature regarding patient selection criteria for these procedures. Invasive surgical treatment to treat TMD should only be considered when all appropriate conservative treatment has failed and minimally invasive surgery such as arthrocentesis or arthroscopy is not indicated.

Prosthetic Joint Replacement

U.S. Food and Drug Administration (FDA): In 1993, TMJ implants were reclassified by the Dental Products Advisory Panel as Class III Devices. Manufacturers were required at that time to submit a Premarket Approval Application (PMA) for any TMJ prosthetic implants currently on the market (product codes LZD and MPI). There have been three prosthetic temporomandibular joint replacement (TJR) systems approved by the FDA:

- TMJ Concepts Patient-Fitted TMJ Reconstruction Prosthesis (TMJ Concepts, Ventura, CA)
  - PMA number P980052, approved July 1999
  - Patient-specific custom prosthesis with computer-aided design

- TMJ Fossa-Eminence/Condylar Prostheses (formerly TMJ Implants, Inc., known as the Christensen device) (Nexus CMF, LLC., Golden CO)
    - PMA number P000023 approved January 2001
    - PMA number P000035 approved February 2001
    - Includes stock and custom devices, and partial devices

- Walter Lorenz Total Temporomandibular Joint Replacement System (known as BIOMET) (Zimmer Biomet, Jacksonville, FL)
    - PMA number P020016 approved September 2005
    - Includes stock and custom devices

A TMJ prosthesis is contraindicated in patients with active or suspected infections in or about the implantation site, known allergy to any of the component materials, patients with infection or malignancy in the head or neck region, and in patients with the ability to exert significant postoperative masticatory muscle hyperfunction (clenching or grinding) which may lead to overload and fracture of the device or loosening of the screws.

Literature Review: There is a lack of randomized trials comparing the three prosthetic temporomandibular joint replacement (TJR) systems approved by the FDA, although meta-analyses have been completed (Zou, et al., 2018a; Johnson, et al., 2017). The meta-analysis by Zou et al. included 20 studies with 1262 patients. Case reports and cases series of fewer than 10 cases or a follow-up time shorter than one year were excluded. Outcome measurements were changes in maximal incisal opening (MIO), pain, dietary limitations, and functional deficiencies from before to after TJR. Comparison of the TJR systems showed no real difference for pre- versus postoperative MIO, pain, diet, and function. MIO and functional efficiency decreased gradually over time, but effective pain relief and improvements in dietary limitations were stable with no relevant differences during follow-up. Comparison of the custom and stock devices showed similar results for pre- and postoperative MIO, pain, function, and diet.

Rajkumar and Sidebottom (2022) reported on long-term outcomes and complications of patients (n=74) who underwent total joint replacement with the TMJ Concepts prosthesis. At ten years post-implant, forty three patients were evaluated. Overall there were significant improvements in pain scores (decreased from 7.4 to 1.7 on a 10-point visual analog scale); maximum mouth opening (increased from 21.0 millimeters [mm] to 34.7 mm); and in dietary scores (increased from 4.1 to 9.5 on a 10-point visual analog scale) ($p<0.0001$ each). There were two reported joint failures requiring revision, though neither case was due to wear on the prosthesis. The authors concluded the TMJ Concepts prosthesis provided long-term improvement in pain and joint function. The study was limited by considerable loss to follow up (42%).

Professional Societies/Organizations
American Association of Oral and Maxillofacial Surgeons (AAOMS): The AAOMS clinical condition statement on temporomandibular disorders was updated in 2024. The statement listed the following potential therapeutic options for temporomandibular joint disorders, and desired treatment outcomes:

- Non-surgical management:
    - medication (e.g., NSAIDs)
    - orthotic appliance
    - physical therapy

- Surgical treatment:
    - manipulation under anesthesia (e.g., brisement)

- arthrocentesis
- non-arthroscopic lysis and lavage and manipulation
- arthroscopic surgery
  - diagnostic
  - operative
- open arthroplasty with or without autograft
- open arthroplasty with alloplast
- disc repair or removal, with or without replacement
- coronoidectomy
- condylectomy
- mandibular condylotomy
- myotomy
- orthognathic surgery
- partial or total joint reconstruction (e.g., autogenous graft, allogeneic graft and alloplastic implant)

- Favorable therapeutic outcomes:
  - level of pain that is of little or no concern to the patient
  - improved jaw function
  - improved ability to masticate food
  - functional and stable occlusion
  - in a growing child, continued symmetrical growth of the mandible in proper relationship to the midface
  - limited period of disability
  - acceptable clinical appearance
  - absence of recurrent jaw locking or dislocation
  - limited progression of the disease

The AAOMS 2023 Parameters of Care Clinical Practice Guidelines for temporomandibular joint surgery stated that TMJ surgery is indicated for the treatment of a wide range of pathologic conditions. The guideline details indications for therapy, therapeutic goals, and specific factors affecting risk, therapeutic parameters, and outcome assessment indices for multiple conditions. The authors' state that surgical intervention for internal derangement arthritic conditions, degenerative joint disease, infectious arthritis, and ankylosis/restricted jaw motion is indicated only when nonsurgical therapy has been ineffective and pain and/or dysfunction are moderate to severe. For alloplastic total joint replacement, only the use of FDA-approved prosthetic devices was recommended.

American Association for Dental, Oral, and Craniofacial Research (AADOCR): In a policy statement on TMD, the AADOCR recommended that, unless there are specific indications otherwise, initial treatment of TMD should be focused on the use of conservative, reversible and evidence-based therapeutic interventions. Conservative modalities present a lower risk of harm, and may be at least as effective in providing symptomatic relief as more invasive treatments (AADOCR, 2015).

American Academy of Pediatric Dentistry (AAPD): The AAPD recommendations for the diagnosis and treatment of temporomandibular disorder (TMD) in children and adolescents were updated in 2024. The AAPD advised that every dental history and exam should address TMJ history and assessment. Imaging and specialist referral may be appropriate if signs and symptoms of TMJ disorder are present. Reversible therapies should be considered for children and adolescents with TMD, and irreversible treatments are to be avoided or considered only as a last option (AAPD, 2024).

Medicare Coverage Determinations

	Contractor	Determination Name/Number	Revision Effective Date
NCD		No Determination found	
LCD		No Determination found	

Note: Please review the current Medicare Policy for the most up-to-date information.
(NCD = National Coverage Determination; LCD = Local Coverage Determination)

Coding Information

Notes:

1. This list of codes may not be all-inclusive since the American Medical Association (AMA) and Centers for Medicare & Medicaid Services (CMS) code updates may occur more frequently than policy updates.
2. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

Considered Medically Necessary when criteria in the applicable policy statements listed above are met:

CPT®* Codes	Description
20605	Arthrocentesis, aspiration and/or injection, intermediate joint or bursa (eg, temporomandibular, acromioclavicular, wrist, elbow, or ankle, olecranon bursa); without ultrasound guidance
20606	Arthrocentesis, aspiration and/or injection, intermediate joint or bursa (eg, temporomandibular, acromioclavicular, wrist, elbow, or ankle, olecranon bursa); with ultrasound guidance, with permanent recording and reporting
21050	Condylectomy, temporomandibular joint (separate procedure)
21060	Meniscectomy, partial or complete, temporomandibular joint (separate procedure)
21240	Arthroplasty, temporomandibular joint, with or without autograft (includes obtaining graft)
21243	Arthroplasty, temporomandibular joint, with prosthetic joint replacement
29804	Arthroscopy, temporomandibular joint, surgical

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Revision Details

Type of Revision	Summary of Changes	Date
Annual review	• No clinical policy statement changes.	12/15/2024
Annual review	• Revised criteria for noninvasive therapies.	12/15/2023