

Temporomandibular Joint Dysfunction	
Type: Medical Necessity and Investigational / Experimental	Policy Specific Section: Medicine
Original Policy Date: September 23, 1987	Effective Date: March 23, 2011

Description

The temporomandibular joint (TMJ) is the hinge between the lower jaw (mandible) and base of the skull (temporal bone). Temporomandibular joint dysfunction (also known as disorder) refers to a cluster of problems associated with the TMJ joint and musculoskeletal structures. Symptoms vary but may include pain, clicking, and locking of the TMJ. Initial conservative therapy is generally recommended; there are also a variety of non-surgical and surgical treatment possibilities for patients whose symptoms persist.

Policy

Diagnostic Procedures

The following procedures are considered **medically necessary** for the diagnosis of temporomandibular joint (TMJ) dysfunction:

- Diagnostic radiographs (x-ray), cephalograms, tomograms, orthopantograms
- Computed tomography (CT), Magnetic resonance imaging (MRI), or Arthrogram of the TMJ in **any** of the following circumstances:
 - o For evaluation of a dysfunctional TMJ after unsuccessful conservative therapy with bite block or splint and anti-inflammatory medicine
 - o For pre-operative evaluation of a dysfunctional TMJ if diagnostic x-rays, cephalograms, orthopantograms show an abnormality
 - o For evaluation of a locked or frozen jaw

Note: Combination imaging with CT, MRI, or Arthrography requires further clinical review by a Medical Director or specialty advisor.

The following procedures are considered **investigational** for the diagnosis of TMJ dysfunction:

- Computerized mandibular scan
- Electromyography (EMG), including surface EMG
- Intra-oral tracing or gothic arch tracing
- Kinesiography
- Muscle testing
- Neuromuscular junction testing
- Range of motion measurements
- Somatosensory testing
- Sonogram (ultrasonic Doppler auscultation)
- Standard dental radiographic procedures
- Thermography
- Transcranial or lateral skull X-rays

Non-Surgical Treatments

The following are considered **medically necessary** for the non-surgical treatment of TMJ dysfunction:

- Intra-oral reversible prosthetic devices/appliances (encompassing fabrication, insertion, and adjustment)
- Pharmacological treatment (such as anti-inflammatory, muscle relaxing, and analgesic medications)
- Physical therapy*

*Ongoing physical therapy may be subject to specialty advisor review for medical necessity.

The following are considered **investigational** for the non-surgical treatment of TMJ dysfunction:

- Acupuncture*
- Biofeedback*
- Dental restorations/prostheses
- Devices promoted to maintain joint range of motion and to develop muscles involved in jaw function (i.e., TherapacerPacer™ CPM , TheraBite® System, OraStretch)
- Diathermy
- Electrogalvanic stimulation
- Intra-articular hyaluronan injections (See Blue Shield of California Medication Policy)
- Low-level laser therapy
- Monochromatic infrared energy (MIRE) or infrared
- Orthodontic services (see Policy Guideline)
- Percutaneous electrical nerve stimulation (PENS)
- Ultrasound

*See Benefit Application Section

Surgical Treatments

The following procedures are considered **medically necessary** for the treatment of TMJ dysfunction:

- Arthrocentesis
- Manipulation for reduction of fracture or dislocation of the TMJ
- Arthroscopic surgery in patients with objectively demonstrated (by physical examination or imaging) internal derangements (displaced discs) or degenerative joint diseases who have failed conservative treatment
- Open surgical procedures including, but not limited to, arthroplasty; condylectomy; meniscus or disc plication and disc removal when **both** of the following criteria are met:
 - o Temporomandibular joint dysfunction is the result of congenital anomalies, trauma, or disease
 - o Failure to respond to non-surgical, conservative, reversible treatment modalities

Arthroscopy of the TMJ is considered **investigational** for purely diagnostic purposes.

Policy Guideline

The following conditions may be associated with TMJ dysfunction:

- o Cranial-cervical syndrome
- o Myofacial pain/dysfunction syndrome
- o Asymmetrical motor neuropathy
- o Cervicalgia
- o Localized myospasm
- o Cephalgia
- o Musculoskeletal dysfunction
- o Neural entrapment
- o Myalgia/myositis.

Orthodontia (dental services to correct irregularities or malocclusion of the teeth) for the medical treatment to alleviate TMJ is not a covered benefit per Blue Shield of California Evidence of Coverage (EOC). Refer to the subscribers dental or orthodontia benefit for further reference.

Internal Information

There is an MD Determination Form for this Medical Policy. It can be found on the following Web page:

http://myworkpath.com/healthcareservices/MedicalOperations/PSR_Determination_Pages.htm

Rationale

The etiology of TMJ dysfunction/disorders remains unclear and is believed to be multifactorial. In epidemiologic studies, up to 75% of adults show at least one sign of joint dysfunction and as many as one third have at least one symptom (Koh and Robinson, 2004; Rutkiewicz et al., 2006). Only 5% of adults with TMJ symptoms require treatment and even fewer develop chronic or debilitating symptoms (Hentschel et al., 2005).

Temporomandibular joint disorders are often divided into two main categories:

- Articular disorders (e.g., ankylosis, congenital or developmental disorders, disk derangement disorders, fractures, inflammatory disorders, rheumatoid arthritis, osteoarthritis and joint dislocation)
- Masticatory muscle disorders (e.g., myofacial 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 TMJ dysfunction 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, avoiding extreme jaw movements, and anti-inflammatory medication are recommended prior to consideration of more invasive and/or permanent therapies such as surgery.

This literature review focused on treatment of TMJ disorders, more specifically on studies which compared novel treatments to conservative interventions and/or placebo controls (rather than no treatment control groups) and on reported pain reduction and/or functional outcomes, e.g., jaw movement.

Diagnosis of Temporomandibular Dysfunction

The American Society of Temporomandibular Joint Surgeons (ASTMJS) Consensus clinical guidelines, published in 2001, focused on TMJ associated with internal derangement and osteoarthritis. For diagnosis of this type of TMJ dysfunction the following were recommended:

- A detailed history and, when indicated, general physical examination
- Imaging of the TMJ and associated structures
- Options for basic radiography to provide information on temporal bone and condylar morphology included use of plain films, panoramic films and tomograms

- Imaging of the disc and associated soft tissue with magnetic resonance imaging (MRI) or arthrography
- Other diagnostic procedures that may be indicated include computed tomography, MRI, arthrography (for selected cases) and isotope bone scans

Klasser and Okeson (2006) in a systematic review on surface electromyography found a lack of literature on the accuracy of this method of diagnosis compared to a gold standard (i.e., comprehensive clinical examination and history-taking). The authors concluded that there was insufficient evidence electromyography can accurately separate individuals with facial pain from those without pain, but the technique may be useful in a research setting.

The most recent systematic review on MRI was published in 2009 by Koh and colleagues. Eight of the 23 studies reviewed found a relationship between a clinical and MRI diagnosis. The authors found substantial variability in study design, methods of clinical examination and diagnostic criteria and therefore could not pool study findings. The Koh review concluded that there is no clear evidence of a relationship between clinical and MRI diagnosis and findings, and additional studies using improved methodologies were required.

A statement by the American Association of Oral and Maxillofacial Surgeons (AAOMS, 2010) concerning the management of TMJ disorders advised the following appropriate diagnostic tests:

- Imaging (e.g., plain or tomographic TMJ radiographs, computerized tomography (CT), magnetic resonance imaging (MRI), three dimensional imaging)
- Appropriate laboratory testing (e.g., rheumatoid panel)

Treatment of Temporomandibular Dysfunction

In 1997, the American Dental Association (ADA) developed dental practice parameters for voluntary use that were intended to aid in clinical decision making, and in the diagnosis and treatment of oral health conditions. Selected statements from their dental practice parameters for TMJ included the following:

- The key element in the design of the set of parameters for temporomandibular (TM) disorders is the professional judgment of the attending dentist, for a specific patient, at a specific time
- Initially the dentist should select the least invasive and most reversible therapy that may ameliorate the patient's pain and/or functional impairment
- Any treatment performed should be with the concurrence of the patient and the dentist
- The dentist should evaluate the effectiveness of initial therapy prior to considering more invasive and/or irreversible therapy
- The dentist should counsel the patient that TM disorders are often managed, rather than resolved, and that symptoms of TM disorders may persist, change, or recur intermittently.
- The patient should be informed that the success of treatment is often dependent upon patient compliance with prescribed treatment and recommendations for behavioral modifications. Lack of compliance should be recorded

- When articular derangement and/or condylar dislocation has been determined to be the etiology of the patient's pain and/or functional impairment, manual manipulation of the mandible may be performed by the dentist
- Oral orthotics (guards/splints) may be used by the dentist to enhance diagnosis, facilitate treatment or reduce symptoms
- The dentist should periodically evaluate oral orthotics (guards/splints) for their effectiveness, appropriateness and possible risks associated with continued use
- Before restorative and/or occlusal therapy is performed, the dentist should attempt to reduce, through the use of reversible modalities, the neuromuscular, myofascial and temporomandibular joint symptoms
- The dentist may replace teeth, alter tooth morphology and/or position by modifying occluding, articulating, adjacent or approximating surfaces, and by placing or replacing restorations (prostheses) to facilitate treatment
- Transitional or provisional restorations (prostheses) may be utilized by the dentist to facilitate treatment
- Intracapsular and/or intramuscular injection, and/or arthrocentesis may be performed for diagnostic and/or therapeutic purposes
- Orthodontic therapy may be utilized to facilitate treatment
- Orthognathic surgery may be performed to facilitate treatment
- When internal derangement or pathosis has been determined to be the cause of the patient's pain and/or functional impairment, arthroscopic or open resective or reconstructive surgical procedures may be performed by the dentist

The ASTMJS Consensus clinical guidelines (2001) advised non-surgical treatment be considered first for all symptomatic patients with TMJ dysfunction. Recommended treatment options included:

- Change in diet
- Non-steroidal anti-inflammatory drugs
- Maxillomandibular appliances
- Physical therapy
- Injections of corticosteroids or botox
- Behavior modification.

Grace et al., (2002) evaluated the use of an oral exercise device in the treatment of patients with mixed TM disorder. This study, although described as a randomized control trial (RCT), sequentially assigned participants to treatment groups (traditional therapies; traditional therapy and an oral exercise device; and education and instruction in home care and the use of the oral exercise device). Study limitations included small sample size, poor description of baseline characteristics of participants, and the fact that chosen interventions included multiple treatments. Due to these limitations, any conclusions about the relative effectiveness of the oral exercise device can not be made.

Hayes (2002) evaluated the evidence regarding the safety and efficacy of passive rehabilitation therapies for jaw hypomobility. Passive rehabilitation therapies included continuous passive motion, manual stretching, and stretching using hand-held devices. The authors reported

limitations of the available studies including very small numbers of patients, lack of randomized comparison treatments, and lack of blinded assessment of outcomes or long-term follow-up. The authors concluded there was insufficient evidence that passive rehabilitation was an effective therapy for hypomandibular hypomobility.

Koh and Robinson (2003) identified three trials evaluating treatment of TMJ disorders with occlusal adjustment; a total of 193 patients completed the trials. Due to differences in outcomes and reporting scales, findings were not pooled. Individual trials did not find significant differences between symptom reduction with occlusal adjustment and control groups. The authors concluded that there was insufficient evidence on occlusal adjustment as a treatment for TMJ.

Al-Ani and colleagues (2004) identified 12 randomized controlled trials comparing stabilization splint therapy for TMJ dysfunction to a control intervention. There was wide variability in the comparison interventions and no standardization of outcomes; thus, results of studies were not pooled. The authors stated that they found little evidence of a difference in the effectiveness of stabilization splint therapy for patients with pain associated with TMJ dysfunction. They further stated that there is some evidence that stabilization splint therapy may be more beneficial for reducing pain severity than no treatment.

The use of intra-articular (IA) viscosupplementation (i.e., hyaluronan injections) for osteoarthritis has been investigated for several anatomical sites, including TMJ. A systematic review for Cochrane found insufficient evidence to encourage the use of IA hyaluronan for the treatment of TMJ pathology (Shi et al., 2003). While IA hyaluronan has a modest effect but long-lived symptomatic effect on pain and functional outcome in knee osteoarthritis; the level of evidence is poor concerning their efficacy in other joints (Gossec et al., 2006). Presently, the evidence is insufficient to determine the efficacy of hyaluronan in joints other than the knee.

A systematic review of the effectiveness of physical therapy interventions for TMJ disorders was conducted by McNeely and colleagues in 2006. Twelve studies met all selection criteria for inclusion in the review: four studies addressed the use of therapeutic exercise interventions, two studies examined the use of acupuncture, and six studies examined electrophysical modalities (e.g., TENS, diathermy, ultrasound, and laser). Two studies provided support of postural exercises to reduce pain and improve function and oral opening (Komiyama et al., 1999; Wright et al., 2000). One study provided evidence for the use of manual therapy in combination with active exercises to reduce pain and improve oral opening (Carmeli et al., 2001). However, the authors advised that more information is required on the optimal exercise prescription (time and type, specific exercise) to allow for replication in the clinical setting. The following conclusions were made:

- There was inadequate information to either support or refute the use of acupuncture in the treatment of TM disorders
- There was no evidence to support the use of electrophysical modalities to reduce TMD pain
- The evidence suggested improvements in oral opening may result from treatment with muscular awareness relaxation therapy (MART), biofeedback training, and low level laser therapy treatment

- Most of the studies included in the review were of poor methodological quality; therefore these findings must be interpreted with caution
- Based on the positive effects of active and passive exercise, postural exercises and manual therapy, high-quality trials with larger sample sizes are clearly warranted in these areas

Two systematic reviews were identified that addressed acupuncture as a treatment for TMJ. The Swedish studies (five RCTs) tended to find similar effectiveness of acupuncture and occlusal splints, and both of these interventions were more effective than no treatment. The authors concluded that acupuncture was similar in effectiveness to occlusal splints but that, due to the methodological limitations e.g., lack of blinding in most studies, further studies are needed to rigorously evaluate acupuncture as a treatment for TMJ dysfunction (Fink et al., 2006). The study by Goddard and colleagues (2007) was the only one to use a sham comparison. However, that study included only 18 patients, involved a single treatment session, and assessed efficacy immediately after treatment, not longer-term. There was no significant difference in pain reduction between groups; pain was significantly lower in both the active and sham acupuncture groups after treatment compared to before (70% versus 50% respectively experienced a significant reduction in pain).

One RCT directly compared four treatments for TMJ (Schiffman et al., 2007). A total of 106 patients were randomized; 29 to a medical management group (non-steroidal anti-inflammatory drugs for three to six weeks plus muscle relaxants and over-the-counter analgesics as needed), 26 to a rehabilitation group (medical management along with a intra-oral orthotic, physical therapy and cognitive-behavioral therapy), 27 to an arthroscopy group, and 26 to an arthroplasty group. Ten patients withdrew before receiving treatment. The study was single-blind (blinded outcome assessment). The two primary outcome measures were the craniomandibular index of pain, and function on the symptom severity index; both range from 0 to 1, with 0 being the lowest value. There was not a significant difference among groups in either of the two primary outcomes at any follow-up visit, including the six-month, one, two and five-year visits.

Hayes (2008) evaluated the evidence regarding the use of low-level light therapy (LLLT) for TMJ pain. The authors reported no two studies had exactly the same inclusion or exclusion criteria and pain outcomes were conflicting. The authors concluded there was a lack of evidence pertaining the efficacy and safety of LLLT.

A review of systematic reviews on TMJ dysfunction treatments published between January 1, 1987 and September 8, 2009 was performed by List and colleagues (2010). There was inconsistency in how TMJ disorders were defined in the primary studies and systematic reviews, and several of the reviews addressed the related diagnoses of bruxism, disc replacements and myofascial pain. The authors divided the treatments into five categories (some studies were included in more than one category). These categories and the main findings are as follows:

- Occlusal appliances, occlusal adjustment and orthodontic treatment (10 articles): six systematic reviews did not find significant benefit compared to other treatments, four found no benefit compared to a placebo device, and three found that occlusal therapy was better than no treatment

- Physical therapy including acupuncture, TENS, exercise and mobilization (eight articles): four reviews found no significant benefit of acupuncture over other treatments, one found no difference between acupuncture and placebo treatment, and three found that acupuncture was better than no treatment
- Pharmacologic treatment (seven articles): treatments found to be superior to placebo were analgesics (two reviews), clonazepam or diazepam (three reviews), antidepressants (four reviews) and hyaluronate (one review). The last review also found hyaluronate and glucosteroids to have a similar effect
- Maxillofacial surgery (four articles): three reviews evaluated surgery for patients with disc displacements and the fourth addressed orthognathic surgery in patients with TMJ disorder. Reviews of surgical treatments generally included lower level evidence, e.g., case series, and did not always compare surgery to a control condition. One systematic review found a similar effect of arthrocentesis, arthroscopy and physical therapy
- Behavioral therapy and multimodal treatments (six articles): two reviews found biofeedback to be better than active control or no treatment, one review found a combination of biofeedback and cognitive-behavioral therapy to be better than no treatment and two found a combination of biofeedback and relaxation to be better than no treatment. One review found that the effects of biofeedback and relaxation were similar

Overall, the authors concluded that there is insufficient evidence that electrophysical modalities and surgery are effective for treating TMJ dysfunction. They found some evidence that occlusal appliances, acupuncture, behavioral therapy, jaw exercise, postural training and some medications can be effective in reducing pain for patients with TMJ disorders. However, the authors noted that most of the systematic reviews they examined included primary studies with considerable variation in methodological quality and thus, it was not possible to make definitive conclusions about the effectiveness of any of the treatments.

Surgery of the TMJ joint has a small but nonetheless important role in the overall management of temporomandibular disorders. Appropriate case selection is the mandatory requirement for successful surgical intervention in order to achieve the desired outcome of treatment, such as relief of symptoms and improved function (Dimitroulis and Dolwick, 1996). Unfortunately, the literature on TMJ surgery is based more on observation than science and RCT's comparing surgical treatment of the TMJ and medical treatment or no treatment (i.e., placebo) are lacking. The true benefit of surgical intervention for TMJ disorders may never be conclusively established and the rate of non-surgical spontaneous recovery from TMJ is unknown (Reston, 2003; Dimitroulis, 2005). While there is no evidence for the long-term efficacy of surgical treatment in controlled studies of TMJ disorders, improved functioning and patient satisfaction has been reported (Banks and Mackenzie, 1975; Tolvanen et al., 1988; Trumpy and Lyberg, 1995; Peltola et al., 2000).

Specific guidance on patient selection criteria and recommendations for surgery are based on the best available evidence. It is accepted that surgical intervention is reserved for patients with defined intra-articular disorders and a high degree of pain and dysfunction, who have failed conservative, and non-surgical therapies (ASTMJS, 2001; Sidebottom, 2009; AAOMS, 2010).

According to the ASTMJS TMJ Consensus Guidelines (2001), if adequate symptom relief did not occur with conservative treatment within two to three weeks, surgical consultation was advised. The guideline stated the following surgical procedures were considered to be accepted and effective for patients with TMJ associated with internal derangement/osteoarthritis:

- Arthrocentesis
- Arthroscopy
- Condylotomy
- Arthrotomy (prosthetic joint replacement may be indicated in selected patients who have severe joint degeneration, destruction or ankylosis)
- Coronoidotomy/coronoidectomy
- Styloidectomy

The use of arthroscopy and arthrocentesis has led to a reduction in the indications of joint surgery (Sidebottom, 2009). Arthrocentesis is the least invasive and simplest of the procedures.

A Cochrane review by Guo and colleagues, updated in 2009, identified two RCTs with a total of 81 patients evaluating the effectiveness of arthrocentesis and lavage for the treatment of TMJ dysfunction. Data were pooled only for the outcome maximum incisal opening. A meta-analysis of the two trials found a weighted mean difference of -5.28 (95% confidence interval [CI] -7.10 to -3.46) in favor of arthroscopy compared to arthrocentesis. The authors concluded that there was insufficient evidence from high-quality RCTs to draw conclusions about the effectiveness of arthrocentesis.

The ASTMJS guidelines (2001) advised that United States Food and Drug Administration (FDA)-approved alloplastic implants are not generally indicated for initial surgical treatment. In addition, prosthetic joint replacement may be indicated in select patients with severe joint degeneration, destruction, or ankylosis when the safety and efficacy of the prosthetic device is recognized by the FDA.

The following devices have obtained pre-market clearance from United States Food and Drug Administration for the surgical treatment of TMJ including, but not limited to:

- TMJ Patient-Fitted TMJ Reconstruction Prosthesis (TMJ Concepts, Camarillo, CA)
- TMJ Partial Temporomandibular Joint Replacement System, TMJ Fossa-Eminence Prosthesis System™, TMJ Patient Specific Fossa-Eminence Prosthesis System™ TMJ Implants, Inc., Golden, CO)
- Total Temporomandibular Joint (TMJ) Replacement System (Walter Lorenz Surgical, Inc., Jacksonville, FL)

Note: The approval status of TMJ prosthetic devices changes frequently; the current approval status of devices is published on the FDA web site: <http://www.fda.gov/>

The 2010 AAOMS statement lists partial or total reconstruction (e.g., autogenous graft, allogeneic graft and alloplastic implant) as a surgical management option for patients with rheumatoid arthritis, condylar hyperplasia or hypoplasia, or idiopathic condylar resorption. However, no specific patient selection criteria or device recommendations are included. The statement also advised that the appropriate choice of care should be specific to each patient based

on the type and degree of the patient's disorder, the non-surgical and surgical options, the experience of the surgeon, and the needs of the patient.

In summary, conservative therapy is the mainstay for treating TMJ disorders. This may include education (proper diet and chewing techniques), intra-oral prosthetic devices/appliances, and medication. While there are a variety of other non-surgical modalities for patients whose symptoms persist; the scientific evidence is insufficient or methodologically flawed. Further, no therapies have been shown to be uniformly superior for the treatment of pain or dysfunction. Surgical treatment can be effective for specific disorders, but should only be considered after reasonable reversible treatment techniques have failed.

Benefit Application

Benefit determinations should be based in all cases on the applicable contract language. To the extent there are any conflicts between these guidelines and the contract language, the contract language will control. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

Some state or federal mandates (e.g., Federal Employee Program (FEP)) prohibit Plans from denying Food and Drug Administration (FDA) - approved technologies as investigational. In these instances, plans may have to consider the coverage eligibility of FDA-approved technologies on the basis of medical necessity alone.

This Policy relates only to the services or supplies described herein. Benefits may vary according to benefit design; therefore, contract language should be reviewed before applying the terms of the Policy. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement Policy

Type	Number	Description
CPT	20605	Arthrocentesis, aspiration and/or injection; intermediate joint or bursa (eg, temporomandibular, acromioclavicular, wrist, elbow or ankle, olecranon bursa)
	21010	Arthrotomy, temporomandibular joint
	21050	Condylectomy, temporomandibular joint (separate procedure)
	21060	Meniscectomy, partial or complete, temporomandibular joint (separate procedure)
	21070	Coronoidectomy (separate procedure)

Type	Number	Description
	21073	Manipulation of temporomandibular joint(s) (TMJ), therapeutic, requiring an anesthesia service (ie, general or monitored anesthesia care)
	21116	Injection procedure for temporomandibular joint arthrography
	21240	Arthroplasty, temporomandibular joint, with or without autograft (includes obtaining graft)
	21242	Arthroplasty, temporomandibular joint, with allograft
	21243	Arthroplasty, temporomandibular joint, with prosthetic joint replacement
	29800	Arthroscopy, temporomandibular joint, diagnostic, with or without synovial biopsy (separate procedure)
	29804	Arthroscopy, temporomandibular joint, surgical
	70250	Radiologic examination, skull; less than 4 views
	70260	Radiologic examination, skull; complete, minimum of 4 views
	70300	Radiologic examination, teeth; single view
	70310	Radiologic examination, teeth; partial examination, less than full mouth
	70320	Radiologic examination, teeth; complete, full mouth
	70328	Radiologic examination, temporomandibular joint, open and closed mouth; unilateral
	70330	Radiologic examination, temporomandibular joint, open and closed mouth; bilateral
	70332	Temporomandibular joint arthrography, radiological supervision and interpretation
	70336	Magnetic resonance (eg, proton) imaging, temporomandibular joint(s)
	70350	Cephalogram, orthodontic
	70355	Orthopantomogram
	70486	Computed tomography, maxillofacial area; without contrast material

Type	Number	Description
	70487	Computed tomography, maxillofacial area; with contrast material(s)
	70488	Computed tomography, maxillofacial area; without contrast material, followed by contrast material(s) and further sections
	76536	Ultrasound, soft tissues of head and neck (eg, thyroid, parathyroid, parotid), real time with image documentation
	77077	Joint survey, single view, 2 or more joints (specify)
	93740	Temperature gradient studies
	93886	Transcranial Doppler study of the intracranial arteries; complete study
	93888	Transcranial Doppler study of the intracranial arteries; limited study
	95831	Muscle testing, manual (separate procedure) with report; extremity (excluding hand) or trunk
	95851	Range of motion measurements and report (separate procedure); each extremity (excluding hand) or each trunk section (spine)
	95867	Needle electromyography; cranial nerve supplied muscle(s), unilateral
	95868	Needle electromyography; cranial nerve supplied muscles, bilateral
	95925	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in upper limbs
	95927	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in the trunk or head
	95937	Neuromuscular junction testing (repetitive stimulation, paired stimuli), each nerve, any 1 method
	96000	Comprehensive computer-based motion analysis by video-taping and 3D kinematics;
	97024	Application of a modality to 1 or more areas; diathermy (eg, microwave)

Type	Number	Description
	97026	Application of a modality to 1 or more areas; infrared
	97035	Application of a modality to 1 or more areas; ultrasound, each 15 minutes
HCPC	D7830	Manipulation under anesthesia
	D7840	Condylectomy
	D7850	Surgical discectomy; with/without implant
	D7852	Disc repair
	D7854	Synovectomy
	D7856	Myotomy
	D7858	Joint reconstruction
	D7860	Arthrotomy
	D7865	Arthroplasty
	D7870	Arthrocentesis
	D7871	Nonarthroscopic lysis and lavage
	D7873	Arthroscopy, surgical: lavage and lysis of adhesions
	D7874	Arthroscopy, surgical: disc repositioning and stabilization
	D7875	Arthroscopy, surgical: synovectomy
	D7876	Arthroscopy, surgical: discectomy
	D7877	Arthroscopy, surgical: debridement
	D7880	Occlusal orthotic appliance
	D7899	Unspecified TMD therapy, by report
	D9950	Occlusion analysis, mounted case
	D9951	Occlusal adjustment, limited
	D9952	Occlusal adjustment, complete
	E0745	Neuromuscular stimulator, electronic shock unit
	E1700	Jaw motion rehabilitation system
	E1701	Replacement cushions for jaw motion rehabilitation system, package of 6
	E1702	Replacement measuring scales for jaw motion rehabilitation system, package of 200

Type	Number	Description
	S3900	Surface electromyography (EMG)
	S8262	Mandibular orthopedic repositioning device, each
ICD9 Procedure		
	76.5	Temporomandibular arthroplasty
ICD9 Diagnosis	524.6	Temporomandibular joint disorders
	524.60	Temporomandibular joint disorders, unspecified
	524.61	Adhesions and ankylosis (bony or fibrous) of temporomandibular joint
	524.62	Arthralgia of temporomandibular joint
	524.63	Articular disc disorder (reducing or non-reducing) of temporomandibular joint
	524.64	Temporomandibular joint sounds on opening and/or closing the jaw
	524.69	Other specified temporomandibular joint disorders
Place of Service	All Places of Service	

Prior Authorization Requirements

This service (or procedure) is considered **medically necessary** in certain instances and **investigational** in others (refer to policy for details).

For instances when the indication is **medically necessary**, clinical evidence is required to determine **medical necessity**.

For instances when the indication is **investigational**, you may submit additional information to the Prior Authorization Department.

Within five days before the actual date of service, the Provider **MUST** confirm with Blue Shield that the member's health plan coverage is still in effect. Blue Shield reserves the right to revoke an authorization prior to services being rendered based on cancellation of the member's eligibility. Final determination of benefits will be made after review of the claim for limitations or exclusions.

Questions regarding the applicability of this policy should also be directed to the Prior Authorization Department. Please call 1-800-541-6652 or visit the Provider Portal www.blueshieldca.com/provider.

Documentation Required for Clinical Review

- History and physical, consultation report, or progress notes including symptoms, prior medical and surgical treatment and responses
- Diagnostic imaging reports (Do not send films)
- Physical therapy evaluation and treatment records (if applicable)

Post Service

- Operative reports (if applicable)

Tables

N/A

Index / Cross Reference of Related BSC Medical Policies

The following Medical Policies share diagnoses and/or are equivalent BSC Medical Policies:

- Biofeedback
- Electrical Stimulation for Pain
- Hyaluronic Acid Medication Policy
- Low-Level Laser Therapy
- Nerve Conduction Studies
- Orthognathic Surgery
- Reconstructive Services
- Thermography/Temperature Gradient Studies

Definitions

Ankylosis - Obliteration of the joint space with abnormal bony morphology.

Arthrocentesis - Joint aspiration. A procedure in which a sterile needle and syringe are used to drain fluid from a joint.

Arthroscopy - A surgical technique in which a scope is inserted into a joint to inspect, diagnose and repair tissues.

Arthrotomy - A surgical incision into a joint. The physician may use several incisional patterns, including the preauricular approach, making an incision through the skin anterior to the contour of the ear. The physician may also approach the TMJ through an incision inside or behind the

ear. The physician dissects the tissue layers away until the TMJ is exposed and the joint can be incised. The skin incision is closed with sutures.

Arthroplasty - Surgical reconstruction or replacement of a malformed or degenerated joint. An incision is made through the skin anterior to the contour of the ear or within the ear. The tissues are dissected and the joint is exposed. The bony components of the joint may be smoothed or recontoured. The incision is then closed directly.

Bruxism - Characterized by grinding of the teeth and is typically accompanied by clenching of the jaw.

Cephalogram - A radiographic image of the jaw and skull. On tracings of these films, anatomic points, planes, and angles are drawn that assist in the evaluation of the patient's facial growth and development.

Computerized mandibular scan - A tracking device that 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.

Condylotomy - Incision or surgical division of a condyle (rounded prominence at the end of a bone).

Coronoidectomy - Surgical removal of the coronoid process (sharp triangular projection from a bone) of the mandible.

Coronoidotomy - The incision or separation of the coronoid process (sharp triangular projection from a bone) of the mandible.

Diathermy - The controlled production of deep heating beneath the skin in the subcutaneous tissues, deep muscles and joints for therapeutic purposes. Types of diathermy devices include: radio or high frequency and microwave, and ultrasonic or ultrasound therapy.

Electromyography (EMG) - A technique that involves testing and recording the electrical activity of skeletal muscle.

Intra-oral tracing or gothic arch tracing - Intended to demonstrate deviations in the positioning of the jaws that are associated with TMJ dysfunction.

Iontophoresis - The use of electrical current to introduce the ions of a medication into the bodily tissues.

Kinesiography - A diagnostic study using a kinesiograph which is a device that analyzes, measures and records jaw movements in three-dimensions (e.g., motion of opening and closure movement limits, movement velocity, postural rest position, chewing cycle etc.).

Muscle testing - Muscle or muscle groups are tested for strength.

Neuromuscular junction testing - Involves the stimulation of an individual motor nerve by means of repetitive electrical impulses with measurement of the resulting electrical activity of a muscle supplied by that nerve.

Orthopantomogram or panoramic radiographs - A radiographic image showing a broad view of the jaws, teeth, sinuses, nasal area, and TMJ joints.

Range of motion measurements and report - Testing that determines active and passive range of motion for extremities and joints.

Somatosensory testing - An evoked potential test that measures the electrical signals sent by the brain when nerves are stimulated. A somatosensory test would use a mild electrical shock that feels like a small tingle. A computer measures the brain's response to the stimuli, and analyzes and pinpoints the location of any nerve damage.

Styloidectomy - Removal of the spike-like projection called the styloid process (e.g., styloid process of the temporal bone).

Thermography - Non-invasive imaging technique intended to measure the temperature distribution of various organs and tissues. Also known as temperature gradient studies, thermal imaging, or infrared thermography.

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Key / Related Searchable Words

- TMJ Syndrome

Policy History

This section provides a chronological history of the activities, updates and changes that have occurred with this Medical Policy.

Effective Date	Action	Reason
9/23/1987	BCBSA Medical Policy adoption	Medical Policy Committee
6/1/2001	Policy reviewed and policy statement unchanged	Medical Policy Committee
10/1/2010	Policy title change from Arthroscopy and Arthroscopic Surgery of the Temporomandibular Joint Policy revision with position change	Medical Policy Committee
3/23/2011	Coding update	Administrative Review

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