



**Regence BlueCross BlueShield of Oregon · Regence BlueShield
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Note: Although the services described in this position statement are not subject to routine medical necessity review, utilization may be audited.

Clinical Position Statement: Temporomandibular Joint Dysfunction

Temporomandibular Joint Dysfunction (TMD) is a condition that may be characterized by one or more of the following symptoms: grating or grinding sensation; pain on or about the external auditory meatus on palpation; or stiffness and locking of the jaw. The actual joint pathology may involve the ligaments, capsule (meniscus) or osseous structures and can result from either extrinsic or intrinsic factors leading to condylar displacement, injury of the meniscus, injury of the ligaments or osteoarthritis of the condyle and/or fossa. Headaches in the absence of symptoms or signs of internal derangement are not synonymous with internal derangement of the TMJ or with TMD.

- The following services are not a medical service for the treatment of TMD unless specifically listed as a medical benefit in the member contract:
 - Occlusal equilibration
 - Full mouth reconstruction
 - Dentures
 - Orthodontia
 - Appliance or restoration to increase vertical dimension or restore occlusion
 - Bruxism splints

Diagnostic Procedures

- The following *diagnostic procedures* may be useful in the evaluation of TMD:
 - Transcranial X-rays
 - Arthrograms
 - MRI (generally reserved for pre-surgical evaluations)
 - Tomograms if pain persists after treatment
 - Pantograms, panoramic radiographs, orthopantograms or PANOREX
 - Diagnostic arthroscopy when other forms of testing have been inconclusive
 - CT scan for either of the following indications:
 - When other forms of testing have been inconclusive
 - When pathology outside the joint is suspected

- The following *diagnostic procedures* do not provide information that is useful in the diagnosis of TMD:
 - Cephalograms
 - Full mouth X-rays

- There is insufficient evidence to determine the effectiveness of the following *diagnostic procedures* in the evaluation of TMD:
 - Electromyography (EMG), including surface EMG (SEMG)
 - Mandibular kinesiography (MKG)
 - Thermography

- Neuromuscular junction testing
- Somatosensory testing
- Sonogram (ultrasonic Doppler auscultation)
- Intra-oral tracing or gothic arch tracing (intended to demonstrate deviations in the positioning of the jaws that are associated with TMD)
- Muscle testing
- Standard dental radiographic procedures other than panoramic radiographs or PANOREX.
- 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 TMD)

Therapeutic Procedures

- There is sufficient evidence to suggest that the following *non-surgical (conservative) treatments* may be effective in the treatment of TMD:
 - Custom-made intra-oral removable prosthetic devices/appliances (encompassing fabrication, insertion, and adjustment)
 - Pharmacological treatment (such as anti-inflammatory, muscle relaxant, and analgesic medications)
 - Manual assisted exercise devices to promote jaw range of motion or development and/or rehabilitation of jaw muscles, when used after surgery, or specifically in cases of fibrosis when used preoperatively. (Note: These devices do *not* include continuous passive motion (CPM) devices)
 - Physical therapy, including diathermy, infrared, and heat and cold treatment, ultrasound and manipulation
 - Acupuncture for patients with myofascial pain in addition to TMD
- There is insufficient evidence to determine the effectiveness of the following *non-surgical (conservative) procedures* in the treatment of TMD:
 - Electrical stimulation

- Galvanic or electrogalvanic stimulation (EGS)
 - H-wave stimulation
 - Microcurrent electrical nerve stimulation (MENS)
 - Neuromuscular electrical stimulation (NMES)
 - Percutaneous electrical nerve stimulation (PENS)
 - Percutaneous neuromodulation therapy (PNT)
 - Transcutaneous electrical nerve stimulation (TENS)
- Iontophoresis
- Low level laser treatment (LLLT)
- Monochromatic infrared energy (MIRE)
- Biofeedback
- Acupuncture for TMD in the absence of myofascial pain
- Continuous passive motion (CPM) devices
- There is sufficient evidence to suggest that the following *surgical treatments* may be effective in the treatment of TMD:
 - Arthrocentesis
 - Manipulation for reduction of fracture or dislocation of the condyle or for lysis of fibrosis limiting condylar translation
 - Therapeutic arthroscopic surgery in patients who have failed non-surgical treatment for objectively demonstrated (by diagnostic arthroscopy or imaging) internal derangements (displaced discs) or degenerative joint disease, including but not limited to the following:

- Painful anterior disc displacement without reduction
 - Painful anterior disc displacement with reduction and deformed disc
 - Painful anterior disc displacement with reduction in young patients with mandibular dysfunction
 - Fibrous adhesions in the upper or lower joint compartment
 - Normal mandibular function but with disc perforation, with or without osteoarthritic changes
 - Foreign body visible on X-rays
- Open surgical procedures, including but not limited to the following:
 - Meniscectomy (21060)
 - Condylectomy (21050)
 - Meniscus or disc plication
 - Disc removal
 - Arthroplasty after failed trial of at least six months of conservative therapy for any of the following:
 - Displaced or torn meniscus
 - Severe, painful joint disease including presence of spurs, necrosis of the condyle or arthritic deterioration
 - Fibrous or bony ankylosis of TMJ
 - Removal of TMJ Teflon-Proplast implants symptomatic or non-symptomatic
 - Documented failure of TMJ prosthetic replacement devices
 - Total joint replacement with FDA-approved implant devices or autografts. The approval status of TMJ prosthetic devices changes frequently; the current approval status of devices is published on the FDA web site.

- There is insufficient evidence to determine the effectiveness of the following *surgical procedures* in the treatment of TMD:
 - Total joint transplant with microvascular metatarsophalangeal joint graft.
 - Total joint reconstruction, replacement or transplant with non-FDA approved implant devices

Splints or occlusal orthotic devices

- Bruxism splints are not a medical service for the treatment of TMD unless specifically listed as a medical benefit in the member contract.
- There is sufficient evidence to suggest that the following may be effective in the treatment of TMD:
 - Anterior repositioning appliance
 - Anterior bite plane
 - Posterior bite plane

Rationale:

Diagnostic services

- It is uncertain whether the information from the diagnostic studies listed above in II.C. 1-10 are reliable for the diagnosis and management of TMD.
- The few clinical trials examining sensitivity, specificity and positive and negative predictive values of these tests are limited to unreliable case series and small randomized trials that do not permit conclusions on the effectiveness of these tests for the evaluation of TMD.
 - The sample size of the studies is too small to allow the results to be generalized to the greater TMD patient population.
 - The studies do not compare the sensitivity, specificity and positive and negative predictive values of these tests with those of standard diagnostic studies for TMD.
 - The studies do not compare the outcomes of treatment plans based on these tests with those of standard diagnostic studies for TMD.

Therapeutic services

- There is insufficient evidence to allow conclusions on the benefits and risks of the therapeutic procedures listed above in III.B.1-7 and III.D.1-2 for the treatment of TMD.
- Clinical trial data is limited to unreliable case series, retrospective reviews and small, poorly designed randomized trials that do not permit conclusions on the effectiveness or safety of these treatments for patients with TMD.
 - The medium- and long-term results of these therapies compared with conventional TMD treatments is unknown.
 - The sample size of the studies is too small to allow the results to be generalized to the greater TMD patient population.
 - There are no studies on whether the nonsurgical treatments result in long-term symptom improvement or delay or eliminate the need for surgical treatment.

Codes	Number	Description
CPT	20972	Free osteocutaneous flap with microvascular anastomosis; metatarsal
	20973	Free osteocutaneous flap with microvascular anastomosis; great toe
	20957	Bone graft with microvascular anastomosis; metatarsal
	21010	Arthrotomy, temporomandibular joint
	21050	Condylectomy, temporomandibular joint (separate procedure)
	21060	Meniscectomy, partial or complete, temporomandibular joint (separate procedure)
	21070	Coronoidectomy (separate procedure)
	21073	Manipulation of temporomandibular joint(s) (TMJ), therapeutic, requiring an anesthesia service (i.e., 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
	21480	Closed treatment of temporomandibular joint dislocation; initial or subsequent

	21485	Closed treatment of temporomandibular joint dislocation; complicated (eg, recurrent requiring intermaxillary fixation or splinting), initial or subsequent
	21490	Open treatment of temporomandibular joint dislocation
	29800	Arthroscopy, temporomandibular joint, diagnostic, with or without synovial biopsy (separate procedure)
	29804	Arthroscopy, temporomandibular joint, surgical
	70328	Radiologic exam of temporomandibular joint, open and closed mouth; unilateral
	70330	; bilateral
	70332	Temporomandibular joint arthrography, radiologic supervision and interpretation
	70336	Magnetic resonance (e.g., proton) imaging, temporomandibular joint(s)
	70350	Cephalogram, orthodontic
	70355	Orthopantomogram [this code used for panoramic radiographs or PANOREX]
HCPCS	L8699	Prosthetic implant, not otherwise specified