Medical Policy
Temporomandibular Joint Disorder

Table of Contents
• Policy: Commercial
• Coding Information
• Information Pertaining to All Policies
• Policy: Medicare
• Description
• References
• Authorization Information
• Policy History
• Endnotes

Policy Number: 035
New Policy Number: 2.01.21 (For Plan internal use only)
NCD/LCD:  N/A

Related Policies
• Biofeedback for Chronic Pain, #210
• Injections for Osteoarthritis, #427
• Low-Level Laser Therapy, #522
• Percutaneous Electrical Nerve Stimulation (PENS) and Percutaneous Neuromodulation Therapy (PNT), #172
• Transcutaneous Electrical Nerve Stimulation (TENS), #003

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

DIAGNOSTIC PROCEDURES - Prior authorization is not required.
The following diagnostic procedures may be considered MEDICALLY NECESSARY in the diagnosis of temporomandibular joint disorder (TMJD):
• Diagnostic x-ray, tomograms, and arthrograms
• Computed tomography (CT) scan or magnetic resonance imaging (MRI) (in general, CT scans and MRIs are reserved for pre-surgical evaluations)
• Cephalograms* (x-rays of jaws and skull)
• Pantograms* (x-rays of maxilla and mandible).

*Cephalograms and pantograms should be reviewed on an individual basis.

The following diagnostic procedures are considered INVESTIGATIONAL in the diagnosis of TMJD:
• Electromyography (EMG), including surface EMG
• Kinesiography
• Thermography
• Neuromuscular junction testing
• Somatosensory testing
- Transcranial or lateral skull x-rays
- Intra-oral tracing or gnathic arch tracing (intended to demonstrate deviations in the positioning of the jaws that are associated with TMJ disorder
- Muscle testing
- Standard dental radiographic procedures
- Range of motion measurements
- 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 TMJD
- Ultrasound imaging/sonogram
- Arthroscopy of the temporomandibular joint (TMJ) for purely diagnostic purposes
- Joint vibration analysis.

### NONSURGICAL TREATMENTS - Prior authorization is not required.
The following nonsurgical treatments may be considered MEDICALLY NECESSARY in the treatment of TMJD:
- Intra-oral removable prosthetic devices/appliances (encompassing fabrication, insertion, and adjustment)
- Splint therapy, including a mandibular orthopedic repositioning appliance (MORA) and measuring, fabricating and adjusting the splint
- Pharmacologic treatment (such as anti-inflammatory, muscle relaxing, and analgesic medications)
- Physical therapy.

**Note:** Unless otherwise specified, the reasonable replacement frequency for a durable medical equipment (oral appliance) is once every five years. For additional information, see Durable Medical Policy Payment Policy.

The following nonsurgical treatments are considered INVESTIGATIONAL in the treatment of TMJD:
- Electrogalvanic stimulation
- Iontophoresis
- Biofeedback
- Ultrasound
- Devices promoted to maintain joint range of motion and to develop muscles involved in jaw function,
- Orthodontic services
- Dental restorations/prostheses
- Transcutaneous electrical nerve stimulation (TENS)
- Percutaneous electrical nerve stimulation (PENS)
- Hyaluronic acid
- Platelet concentrates
- Dextrose prolotherapy
- Botulinum toxin A.

### SURGICAL TREATMENTS - Prior authorization is required.
The following surgical treatments may be considered MEDICALLY NECESSARY in the treatment of TMJD:
- Arthrocentesis
- Manipulation for reduction of fracture or dislocation of the TMJ
- Arthroscopic surgery in individuals with objectively demonstrated (by physical examination or imaging) internal derangements (displaced discs) or degenerative joint disease who have failed conservative treatment
- Open surgical procedures (when TMJD is the result of congenital anomalies, trauma, or disease in individuals who have failed conservative treatment) including, but not limited to, arthroplasties, condylectomies, meniscus or disc plication and disc removal.
Prior Authorization Information

Inpatient
- For services described in this policy, precertification/preauthorization IS REQUIRED for all products if the procedure is performed inpatient.

Outpatient
- For services described in this policy, see below for products where prior authorization might be required if the procedure is performed outpatient.

<table>
<thead>
<tr>
<th>Outpatient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
</tr>
<tr>
<td>Prior authorization is required on surgical treatments only.</td>
</tr>
<tr>
<td>Commercial PPO and Indemnity</td>
</tr>
<tr>
<td>Prior authorization is required on surgical treatments only.</td>
</tr>
<tr>
<td>Medicare HMO Blue℠</td>
</tr>
<tr>
<td>Prior authorization is required on surgical treatments only.</td>
</tr>
<tr>
<td>Medicare PPO Blue℠</td>
</tr>
<tr>
<td>Prior authorization is required on surgical treatments only.</td>
</tr>
</tbody>
</table>

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The above medical necessity criteria MUST be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:

<table>
<thead>
<tr>
<th>CPT Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT codes: Code Description</td>
</tr>
<tr>
<td>21010 Arthrotomy, temporomandibular joint</td>
</tr>
<tr>
<td>21050 Condyllectomy, temporomandibular joint (separate procedure)</td>
</tr>
<tr>
<td>21060 Meniscectomy, partial or complete, temporomandibular joint</td>
</tr>
<tr>
<td>21073 Manipulation of temporomandibular joint(s) (TMJ), therapeutic, requiring an anesthesia service (i.e., general or monitored anesthesia care)</td>
</tr>
<tr>
<td>21116 Injection procedure for temporomandibular joint arthrography</td>
</tr>
<tr>
<td>21240 Arthroplasty, temporomandibular joint, with or without autograft (includes obtaining graft)</td>
</tr>
<tr>
<td>21242 Arthroplasty, temporomandibular joint, with allograft</td>
</tr>
<tr>
<td>21243 Arthroplasty, temporomandibular joint, with prosthetic joint replacement</td>
</tr>
<tr>
<td>29800 Arthroscopy, temporomandibular joint, diagnostic, with or without synovial biopsy (separate procedure)</td>
</tr>
<tr>
<td>29804 Arthroscopy, temporomandibular joint, surgical</td>
</tr>
</tbody>
</table>

Description

Diagnosis of Temporomandibular Joint Disorder

In the clinical setting, temporomandibular joint disorder (TMJD) is often a diagnosis of exclusion and involves physical examination, patient interview, and a review of dental records. Diagnostic testing and radiologic imaging are generally only recommended for individuals with severe and chronic symptoms.
Diagnostic criteria for TMJD have been developed and validated for use in both clinical and research settings.1,2,3,

Symptoms attributed to TMJD vary 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).

Treatment
For many individuals, symptoms of TMJD are short-term and self-limiting. Conservative treatments (eg, eating soft foods, rest, heat, ice, avoiding extreme jaw movements) and anti-inflammatory medication are recommended before considering more invasive and/or permanent therapies (eg, surgery).

Note that low-level laser therapy for TMJD is addressed in policy #522.

Summary
Description
Temporomandibular joint disorder (TMJD) refers to a group of disorders characterized by pain in the temporomandibular joint and surrounding tissues. Initial conservative therapy is generally recommended; there are also a variety of nonsurgical and surgical treatment possibilities for patients whose symptoms persist.

Summary of Evidence
For individuals with suspected temporomandibular joint disorder (TMJD) who receive ultrasound, surface electromyography, or joint vibration analysis, the evidence includes systematic reviews of diagnostic test studies. Relevant outcomes are test validity and other performance measures. None of the systematic reviews found that these diagnostic techniques accurately identified patients with TMJD, and many of the studies had methodologic limitations. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with a confirmed diagnosis of TMJD who receive intraoral devices or appliances or pharmacologic treatment, the evidence includes randomized controlled trials (RCTs) and systematic reviews of RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. A systematic review of intraoral appliances (44 studies) and meta-analyses of subsets of these studies found a significant benefit of intraoral appliances compared with control interventions. Several studies, meta-analyses, and systematic reviews exploring the effectiveness of stabilization splints on TMJD pain revealed conflicting results. Overall, the evidence shows that stabilizing splints may improve pain and positively impact depressive and anxiety symptoms. The evidence related to pharmacologic treatment varies because studies, systematic reviews, and meta-analyses lack consistency in evaluating specific agents. Some systematic reviews have found a significant benefit of several pharmacologic treatments (eg, analgesics, muscle relaxants, and anti-inflammatory medications [vs. placebo]), but other studies showed a lack of benefit with agents such as methylprednisolone and botulinum toxin type. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with a confirmed diagnosis of TMJD who receive acupuncture, biofeedback, transcutaneous electric nerve stimulation, orthodontic services, hyaluronic acid, platelet concentrates, or dextrose prolotherapy, the evidence includes RCTs, systematic reviews of these RCTs, and observational studies. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The systematic reviews did not find that these technologies reduced pain or improved functional outcomes significantly more than control treatments. Moreover, many individual studies were small and/or had methodologic limitations. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with a confirmed diagnosis of TMJD who receive arthrocentesis or arthroscopy, the evidence includes RCTs, systematic reviews of RCTs, and observational studies. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. One review, which included 3 RCTs, compared arthrocentesis or arthroscopy with nonsurgical interventions for TMJD. Pooled analyses of the RCTs found that arthrocentesis and arthroscopy resulted in superior pain reduction compared with control
interventions. A network meta-analysis, which included 36 RCTs, revealed that arthroscopy and arthrocentesis improve pain control and maximum mouth opening. A third meta-analysis (N=8 RCTs) demonstrated superior pain reduction, but no difference in maximum mouth opening, with arthrocentesis compared to conservative therapies. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

**Policy History**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/2022</td>
<td>Policy clarified. A note was added stating that unless otherwise specified, the reasonable replacement frequency for a durable medical equipment (oral appliance) is once every five years. For additional information, see Durable Medical Policy Payment Policy.</td>
</tr>
<tr>
<td>9/2022</td>
<td>Policy clarified. Prior authorization is required for surgical treatments of TMJD only. Diagnostic procedures and nonsurgical treatments do not require prior authorization.</td>
</tr>
<tr>
<td>9/2022</td>
<td>Policy clarified. Splint therapy, including a mandibular orthopedic repositioning appliance (MORA) and measuring, fabricating and adjusting the splint added under nonsurgical treatments of TMJD.</td>
</tr>
<tr>
<td>7/2022</td>
<td>Policy revised. Investigational policy statement modified to include dextrose prolotherapy. Effective 7/1/2022.</td>
</tr>
<tr>
<td>1/2022</td>
<td>Clarified prior authorization information.</td>
</tr>
<tr>
<td>7/2021</td>
<td>Annual policy review. Investigational policy statement modified to include platelet concentrates. Effective 7/1/2021.</td>
</tr>
<tr>
<td>3/2021</td>
<td>Clarified coding information.</td>
</tr>
<tr>
<td>10/2020</td>
<td>Clarified coding information.</td>
</tr>
<tr>
<td>1/2020</td>
<td>Investigational statement on acupuncture as non-surgical treatment of TMJD was removed. Effective 1/1/2020.</td>
</tr>
<tr>
<td>1/2018</td>
<td>Clarified coding information.</td>
</tr>
<tr>
<td>5/2016</td>
<td>Clarified coding information.</td>
</tr>
<tr>
<td>6/2014</td>
<td>Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.</td>
</tr>
<tr>
<td>3/1/2012</td>
<td>Annual policy review. Changes to policy statements.</td>
</tr>
</tbody>
</table>
Information Pertaining to All Blue Cross Blue Shield Medical Policies
Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References

Endnotes
1 Based on Subscriber Certificate