

Quality Resource Guide

Evaluation and Treatment of TMD Patients

Author Acknowledgements

MAUREEN LANG, DDS, MS

Private Practice
San Antonio, Texas

Dr. Lang is a member and former officer of the American Academy of Orofacial Pain.

Educational Objectives

Following this unit of instruction, the learner should be able to:

1. Describe the typical symptoms experienced by a TMD patient.
2. Understand the circumstances when most general dentists should refer a TMD patient to a practitioner with greater expertise.
3. Discuss occlusal appliance design and material choices.
4. Understand which non-TMD disorders may complicate the clinician's ability to provide successful TMD therapy.
5. Understand how to more rapidly obtain a TMD patient's history.

MetLife designates this activity for **1.0 continuing education credits** for the review of this Quality Resource Guide and successful completion of the post test.

The following commentary highlights fundamental and commonly accepted practices on the subject matter. The information is intended as a general overview and is for educational purposes only. This information does not constitute legal advice, which can only be provided by an attorney.

© 2024 MetLife Services and Solutions, LLC. All materials subject to this copyright may be photocopied for the noncommercial purpose of scientific or educational advancement.

Originally published August 2009. Updated and revised May 2012, November 2015, May 2018, May 2021 and December 2024. Expiration date: December 2027.

The content of this Guide is subject to change as new scientific information becomes available.

ADA CERP® | Continuing Education
Recognition Program

MetLife is an ADA CERP Recognized Provider.

Accepted Program Provider FAGD/MAGD Credit **05/01/21 - 06/30/25**.

ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education.

ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry.

Address comments or questions to:

DentalQuality@metlife.com

MetLife Dental Continuing Education
501 US Hwy 22
Bridgewater, NJ 08807

Cancellation/Refund Policy:

Any participant who is not 100% satisfied with this course can request a full refund by contacting us.

Concerns or complaints about a CE provider may be directed to the provider or to ADA CERP at www.ada.org/goto/cerp.

Background

Temporomandibular disorders (TMD) primarily refer to alterations in structure, changes in function, or pain conditions that involve the temporomandibular joints and the masticatory muscles. TMD is a very general term, and there are numerous muscle and joint diagnoses that fall under its umbrella. Patients with TMD typically present with pain located in the regions of the temporomandibular joint (TMJ), masseter muscle and/or anterior temporalis muscle. General dentists can manage the vast majority of these patients. The quality of TMD pain is generally an ache, pressure, and/or dull sensation, but may include a background burning sensation. Patients may also experience episodes of sharp pain and, when the pain worsens, the primary pain quality may be throbbing. A patient with TMD tends to have pain that is intensified during stress, clenching, and eating. The pain is typically relieved by muscle relaxation, applying heat to the painful area, and taking over-the-counter analgesics.

Practitioners must be alert for unusual aggravating and relieving events for TMD pain in the patient's history. If drinking cold beverages accentuates TMD symptoms, tooth pulpitis could be aggravated by the cold, causing referred pain to a masticatory structure and TMD-like symptoms. If antibiotics are prescribed for some other reason and relieve the TMD symptoms, an intraoral or paraoral infection may be the true cause for the pain. If sinus congestion is contributing to the TMD symptoms, the congestion may need to be treated simultaneously to obtain optimal TMD relief. The patient's history should also include the pain's frequency and duration, intensity (on a 0 to 10 scale, where 0 is no pain and 10 is the worst imaginable), and effectiveness of any previous therapy.

If a TMD patient also has neck pain or widespread body pain, such as fibromyalgia, studies¹ suggest the patient will not experience the degree of improvement that can be obtained in TMD patients without such pain. It is recommended that these patients be referred for treatment of the neck or widespread pain, while simultaneously initiating TMD therapy.^{1,2}

There are numerous medical conditions that can mimic the symptoms of a TMD, and the clinician needs to keep this in mind when evaluating a patient's complaints. A patient with giant cell arteritis (GCA), or temporal arteritis, may have symptoms that mimic mild TMD. GCA occurs primarily in individuals above the age of 50 and typically progresses rapidly. The inflamed arteries present in GCA reduce the blood circulating to the muscles, causing them to feel tired or painful after one to two minutes of use. The arteries to the eyes are small and GCA inflammation may lead vision loss. If the clinician suspects a patient may have GCA, they should refer the patient to a rheumatologist, ophthalmologist, or emergency room physician to be seen that day (if a visual disturbance is present) or within a week (if a visual disturbance is not present).²

Patients with a migraine headache typically have a history of occasional severe unilateral throbbing ache with nausea, light sensitivity, and/or noise sensitivity. These patients generally find lying in a dark quiet room until the headache subsides beneficial. When the headache is not present, the patient is generally pain free. There are great variations in migraine headache presentations and the patient may have tension-type headaches during the non-migraine phase. If the patient has TMD symptoms requiring treatment, TMD therapy is sometimes beneficial for the migraine (with and without aura).³ Referral to a primary care physician or neurologist is appropriate.

Patients with herpes zoster (shingles) generally report a recent onset of constant severe pain with occasional superimposed lancinating pain that covers the distribution of the sensory nerve area (dermatome). Approximately one week after the pain begins, the patient develops dermatomal vesicular eruption. Referral to a primary care physician, as soon as possible, is appropriate.

Patients with facial neuropathic pain generally report the main character of their pain is constant burning or electrical sensation lasting for a few seconds. Trigeminal neuralgia is typically unilateral and found in one of the three divisions of the trigeminal nerve. This pain is typically brief but

excruciating, and electric-like in quality. It may or may not have a trigger zone that precipitates the pain on stimulation.⁴ The clinician should discuss the patient's symptoms with someone trained in orofacial pain or refer the patient to a neurologist.

Practitioners may find the use of an initial TMD patient questionnaire (**Attachment 1**) is beneficial.² The questionnaire enables the practitioner to routinely cover potentially important areas in a timely fashion. It can help to identify factors, including oral habits, that contribute to the patient's chief complaints. Generally, the patient completes it prior to the appointment, allowing the practitioner to obtain important historical and current information in an efficient manner, and develop more specific questions about issues the patient may be dealing with. Asking questions about sleep quality is especially important. Clinicians should be aware of the relationship between sleep and pain, as pain and sleep can affect each other. Some pain conditions will not improve unless underlying sleep issues are addressed. Sleep habits, duration, and quality should be assessed. If sleep appears to be a problem for that patient, referral for a medical sleep evaluation is indicated.⁴

Clinical Examination

The practitioner should begin the clinical examination of a TMD patient with a general intraoral assessment. The entire oral cavity should be visually appraised for pathology (swelling, caries, periodontal diseases, mucosal changes, functional abnormalities). The patient's history and clinical assessment will often alert the practitioner to oral disorders that may be causing or contributing to a patient's symptoms and for which additional radiographs may be indicated.

Generally, only a screening radiography survey (e.g., panoramic radiograph) is indicated for the majority of TMD patients. When a panoramic image is made, the clinician should evaluate all structures for abnormalities that could be causing the patient's pain (sinuses, maxilla, mandible, and TMJs). The lateral pterygoid muscle connects to the lower anterior portion of the condyle, so it is common to observe an elliptical radiolucency in this area (often called a pseudocyst).

Clinicians must be cognizant that there are few, if any, correlations between clinical and radiographic findings in patients with TMD symptoms. It is recommended that practitioners capture additional images only if there is a reasonable expectation that the additional information obtained by the image will alter the patient's treatment.⁴ A practitioner may feel that the information obtained by additional imaging is warranted if the relationship between the patient's history and clinical examination appears unusual, or if pathology is suspected.

The specific TMD physical exam includes attempts to reproduce or intensify the patient's symptoms. It is recommended that the masticatory muscles, as well as the TMJs, be palpated to ensure that the patient's pain complaint can be reproduced. Palpation also helps the clinician to determine whether the primary pain source is of muscle or TMJ origin. It is also recommended that the suboccipital muscles be palpated to identify other regions that may be causing or contributing to the pain complaint. If pain is elicited in these regions, referral may be indicated.

Muscle palpations are performed with the muscles relaxed and the patient is told to let the provider know when the muscle first feels tender. The masseter and temporalis muscles are palpated in the center of the muscle, starting with light force and slowly increasing it until the patient responds or 1 kilogram of force is reached (use a kitchen food scale to determine this level of force).

The TMJ is palpated in a similar fashion. The patient is asked to open approximately 1 inch, so the condyle's lateral pole can be felt. If the lateral pole is not tender, then palpate in a small circle around the condyle as well. Joint sounds may be noted on palpation or with a stethoscope. These may indicate structural irregularities and may or may not be associated with pain or pathology.⁴

These palpations are used to differentiate whether the masseter and temporalis muscles, and TMJs are tender. If the patient's pain was not reproduced or intensified during these palpations, ask the patient where the center of the pain is located, palpate in that region and attempt to reproduce or intensify the patient's pain.

The cervical muscles should be palpated in a similar manner. Place a finger about 0.5 inch below the base of the skull and press inward and upward against the base of the skull. Other tender cervical areas can be identified by palpating the region and/or asking the patient the location of any neck pain. Practitioners can attempt to identify referred pain from the cervical region by palpating tender cervical nodules up to patient tolerance and holding this force for up to five seconds. Ask if the patient feels the pain being referred to other areas of the head or reproduces the pain complaint.²

Mandibular range of motion should be evaluated. As a guide, approximately of 40 mm of interincisal opening, 7 mm of right and left lateral movements, and 6 mm protrusive movement should be present to rule out restriction of motion.² If a patient has a restricted opening, the practitioner may be able to determine the etiology of the restriction by stretching the mouth wider open. This is typically done by placing the index finger over the incisal edges of the mandibular incisors and the thumb over the incisal edges of the maxillary incisors and pressing the teeth apart by moving the fingers in a scissor-type

motion. The patient will usually feel tightness or pain at the location of the restriction and can point to that location.

While general practitioners can manage most TMD patients, there are a few circumstances where most general dentists should refer a TMD patient to a practitioner with greater expertise. These situations are listed in **Table 1**.

TMD Therapy

The most common therapies that general dentists provide for a TMD patient are self-management instructions and an occlusal appliance. TMD self-management instructions encourage patients to massage their painful muscles, reduce their oral parafunctional habits, place heat or cold over the painful areas, eat soft diets, sleep on their backs or sides, and use over-the-counter medications as needed. Diclofenac is a NSAID that is available as an over-the-counter topical gel, and patients often find applying it over their painful masticatory and cervical regions provides a significant temporary relief of their pain.

Table 1 - Circumstances for which most general dentists would refer a patient with TMD to an Orofacial Pain Specialist

- The patient has a progressively increasing anterior open bite – possibly due to condylar degeneration (e.g., TMJ osteoarthritis) causing a collapse of the condylar height
- The patient relates a progressively increasing posterior open bite that does not resolve with initial TMD therapy – possibly due to a tumor within the TMJ causing the condyle to move anterior and/or inferior
- The patient has had an implant placed within a TMJ
- The patient's most prominent pain quality is burning - suggesting that the pain may be neuropathic
- The patient has a restricted mandibular opening that is not related to painful muscles or TMJs – suggesting the possibility of TMJ ankylosis, coronoid process hyperplasia, or muscle contracture
- The patient's signs and symptoms do not adequately respond to the traditional therapies – indicating that a more in-depth evaluation may be indicated
- The patient has signs and/or symptoms suggestive of disorders beyond the practitioner's expertise

Occlusal appliances of many designs and materials have been attempted to treat TMD. Either a maxillary or a mandibular appliance can be fabricated to provide an acceptable occlusion; they appear to have comparable efficacy. The appliance should have even contacts on all posterior teeth, light to no contact on the anterior teeth, and the anterior teeth should disocclude the posterior teeth in excursive positions. If the appliance opposes an implant supported crown, occlusal contacts should be significantly lighter than those on adjacent teeth, so clenching does not transmit excessive loading to the implant. If the appliance will cover an implant supported crown, ask the lab to provide internal relief over the crown, so clenching does not overload the implant.

A maxillary appliance is preferred if the patient has compromised periodontal support that could predispose him/her to flaring of the maxillary anterior teeth. A mandibular appliance is preferred if the patient will wear the appliance during the day, because it is more esthetic and causes less speech disturbance. If the patient does not have a full complement of teeth, most appliances will cover the edentulous regions. The preferred appliance (maxillary or mandibular) is generally the one that can provide the greatest occlusal stability (Table 2). Moderately thick appliances are generally more effective in controlling TMD symptoms.⁵ They also provide more material to accommodate adjustment and/or appliance attrition. However, thinner appliances are often initially perceived to be more comfortable by the patient.

Appliances that cover all of the teeth in an arch (full-coverage appliances) have been shown to be more effective and cause fewer occlusal changes than appliances that cover only a portion of the teeth (partial-coverage appliances).^{5,6,7} Some partial-coverage appliances have been heavily marketed and have gained popularity among some practitioners. Partial-coverage appliances have been shown to be less effective for TMD therapy than full-coverage appliances, with some patients reporting occlusal changes and tooth mobility from wearing them.^{5,8} It is usually recommended that a patient wear a full-coverage stabilization appliance

at night for as long as it is beneficial. It can be worn during the day, but it is not recommended to use the appliance for 24-hour wear. These appliances are only beneficial when worn consistently. If not worn consistently, the teeth tend to shift and the appliance ceases to fit.

Many materials, varying from hard materials (acrylic), intermediate materials (thermoplastic or dual laminate material), and soft materials (athletic mouth guard material) have been used to fabricate occlusal appliances. An informal survey of laboratories suggests that most dentists now provide occlusal appliances made

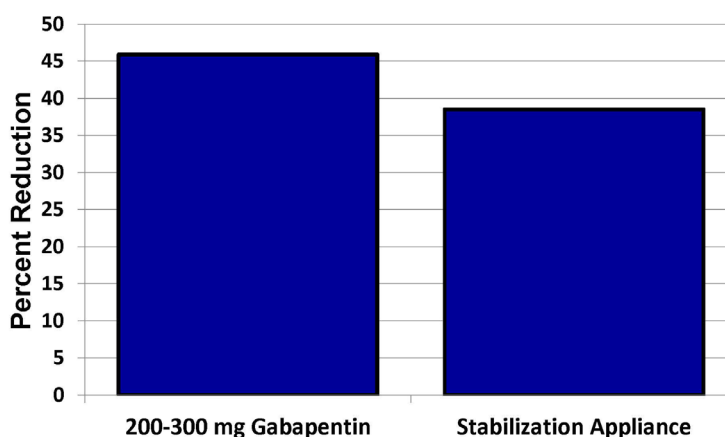
with an intermediate material. When some of these appliances are warmed, they temporarily become slightly pliable, allowing the practitioner to intraorally correct for minor discrepancies with internal fit such as rocking of the appliance around an occlusal fulcrum. The soft inner lining of the dual laminate appliances will similarly flex for minor discrepancies with the internal fit.

The material of choice for an occlusal appliance will vary based upon the individual characteristics of the patient. For instance, if a child with primary or mixed dentition has TMD symptoms that cannot be adequately resolved with non-appliance therapies,

Table 2 - Maxillary or mandibular occlusal appliance

Recommendation	Determinates
Fabricate a maxillary appliance,	If maxillary anterior teeth are prone to flare, e.g., patient has compromised periodontal support of the maxillary anterior teeth.
Fabricate a mandibular appliance,	If patient is to wear the appliance during the day.
Fabricate a maxillary or mandibular appliance,	1. For the arch which would provide greater occlusal stability, this is usually the arch with more missing teeth. 2. To accommodate patient preference, if not contraindicated.

Figure 1 - Reduction in number of sleep bruxism episodes per hour at 2 months



From: Madani AS, et al. J Prosthodont 2013;22(2):126-31.

providing an appliance made from a soft material would be recommended. A hard appliance may limit the child's normal dental arch growth and will not flex as teeth erupt, blocking the appliance from seating. Soft appliances can be made at intervals to accommodate the developing mixed dentition.

Retention can be provided by either the appliance material or wire clasps. There are numerous designs that are effective; the selected appliance should be one that is comfortable for the patient and does not cause the patient any occlusal changes.

Occasionally, the symptoms of a patient with TMD are pharmaceutically managed until the patient can obtain an occlusal appliance. Patients with TMD who wake up in the morning with pain and are undergoing orthodontic treatment or need multiple restorations before appliance fabrication fit in this category. A study suggests that patients taking 200 to 300 mg of gabapentin at bedtime will have a similar decrease in masticatory muscle activity as provided by an occlusal appliance that is worn at night (**Figure 1**).⁹ Gabapentin is typically used for neuropathic pain and has a good safety profile.¹⁰ Clinical experience has demonstrated that prescribing a patient 200 to 300 mg of gabapentin at bedtime generally decreases their awaking TMD pain. Gabapentin can also be used in conjunction with an occlusal appliance, if the appliance does not provide adequate improvement.

In addition to self-management instructions and occlusal appliances, there are many other beneficial therapies that can be provided to TMD patients. A targeted treatment approach uses the patient's daily symptom patterns as a guide to determine which therapies are more efficient and cost-effective. It has been suggested that patients who awake with TMD symptoms, lasting from minutes to hours, probably have nocturnal etiologic factors. A recommended list of therapies for patients who awake with TMD symptoms is provided in **Table 3**. Patients who awake symptom free, but experience TMD symptoms later in the day, may have daytime etiologic factors. A recommended list of therapies for patients with daytime TMD symptoms is provided in **Table 4**. There are also therapies that appear beneficial for either category of patients (**Table 5**).

Table 3 - Primary therapies for patients who awake with TMD symptoms*

<ul style="list-style-type: none"> • Improve sleep positions; stomach sleeping generally contributes to TMD and neck pain • Wear an occlusal appliance at night • Medications that decrease nocturnal electromyographic (EMG) activity (gabapentin** - 100 mg, 2-3 tabs, at bedtime or cyclobenzaprine** 5 mg, 1-2 tabs, at bedtime) • Relaxation procedures prior to sleep
<p>* Awaking headache may also be from heavy snoring or sleep apnea.</p> <p>** The primary side effects of gabapentin are fatigue, somnolence, dizziness, and ataxia; and the primary side effects of cyclobenzaprine are somnolence, dry mouth, and dizziness.¹¹</p>

Table 4 - Primary therapies for patients with daytime TMD symptoms*

<ul style="list-style-type: none"> • Reduce or eliminate daytime parafunctional and muscle-tensing habits • Learn to relax masticatory muscles and maintain this relaxed state throughout the day • Learn stress management and coping skills for life's irritations • Learn biofeedback to help relax masticatory muscles • Wear an occlusal appliance during the day (as a temporary aid until daytime habits are stopped or to increase awareness of daytime habits and facilitate reducing them)
<p>* Some treatment effects generally carry over to the other portion of the day, so patients who have mild daytime pain may find that nocturnal wear of occlusal appliances provide satisfactory improvement.</p>

Table 5 - Therapies that appear beneficial for both categories of patients covered in Tables 3 & 4

<ul style="list-style-type: none"> • Medications (oral or topical NSAIDs) • Physiotherapy (heat, cold, TENS, jaw stretching exercises) • Head and neck posture improvement exercises • Cervical therapies to relieve neck pain
--

Table 6 - Circumstances that may initiate a referral of a TMD patient to physical therapy

<ul style="list-style-type: none"> • The patient has neck pain • The patient has cervicogenic headaches (headaches that originate in the neck) • The patient has moderate to severe forward head posture • The patient's TMD symptoms increase with abnormal postural activities • The patient desires help in changing poor sleep posture • The patient did not obtain adequate TMD symptom relief from other therapies • The patient is scheduled to have TMJ surgery
--

Some patients fall into both categories (they awake with symptoms and have them throughout the day). Often the more predominant category can be identified. Consider all the aforementioned therapies for these patients, keeping in mind the more predominant category.

It is recommended that all TMD therapies be modulated with symptom severity, anticipated compliance, abilities of adjunctive personnel (physical therapist, psychologist), impact on a patient's lifestyle (symptoms and treatments), and costs (price, time, adverse sequelae). Some approaches reported for TMD therapy are not listed in the tables accompanying this QRG because they are not well documented.

The clinician must also consider non-TMD disorders (neck pain, widespread pain, rheumatic disorders, sinus pain, poor sleep, anxiety, and depression) that may negatively impact a patient's TMD symptoms. If these non-TMD contributors are not adequately diagnosed and treated, they significantly reduce the probability of achieving satisfactory improvement of TMD symptoms. It may be necessary to work with the patient and arrange a referral to a physician for the non-TMD malady. A referral to a physical therapist may also be appropriate. Considerations for a Physical Therapy referral are presented in **Table 6**.

It is always recommended that the least invasive TMD therapy procedures be used first and if this adequately resolves the pain, no additional treatment is needed. Referral for surgical treatment is rarely necessary. Surgery is indicated for pathology or severe anatomical derangements that appear to be the cause of disabling symptoms, and are likely to be able to be successfully repaired surgically.

Summary

General dentists can manage the vast majority of TMD patients. There are many TMD treatment options and it is recommended that the most cost-effective therapies that enable the patient to obtain satisfactory symptom relief be provided. Some patients may present with a history and/or symptoms that place them beyond the scope of some general dentists. Orofacial pain became an ADA-recognized specialty in 2020 and TMD is a subcategory of orofacial pain. Diplomates of the American Board of Orofacial Pain are listed on their website <https://www.abop.net>.

Several types of programs certify physical therapists with expertise in treating TMD patients. Certified Cervical and Temporomandibular Therapists (CCTT) are listed on the Physical Therapy Board of Craniofacial and Cervical Therapeutics website <http://www.ptbcct.org>. Some Physical Therapy programs also offer advanced programs and certification in craniofacial therapy. If there are no certified physical therapists near your office, physical therapists with special training in neck therapy can be identified by the credentials: MTC (Manual Therapy Certification) or OCS (Orthopedic Clinical Specialist).

Working with TMD patients and adequately relieving their TMD symptoms can be an extremely rewarding experience for practitioners.

Author Acknowledgement

Dr. Maureen Lang reviewed and updated the current sixth edition of this guide. We acknowledge and appreciate the prior contributions from Dr. Edward Wright who authored the original guide and provided updates for the first five editions.

References

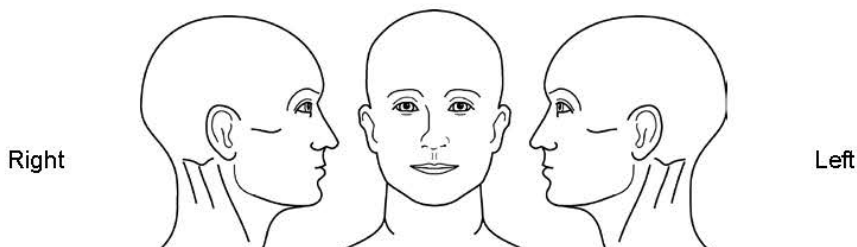
1. van Selms MK, Lobbezoo F, Naeije M. Time courses of myofascial temporomandibular disorder complaints during a 12-month follow-up period. *J Orofac Pain* 2009;23(4):345-52.
2. Wright EF, Klasser GD. *Manual of Temporomandibular Disorders*. 4th ed. John Wiley & Sons, Inc., Hoboken, NJ, 2020.
3. Wright EF, Clark EG, Paunovich ED, Hart RG. Headache improvement through TMD stabilization appliance and self-management therapies. *Cranio* 2006;24(2):104-111.
4. American Academy of Orofacial Pain. Klasser GD, Romero Reyes M. (eds) *Orofacial Pain: Guidelines for Assessment, Diagnosis and Management*. 7th ed. Chicago: Quintessence Publishing Co, 2023.
5. Friction J, Look JO, Wright E, Alencar FG Jr, Chen H, Lang M, Ouyang W, Velly AM. Systematic Review and Meta-analysis of Randomized Controlled Trials Evaluating Intraoral Orthopedic Appliances for Temporomandibular Disorders. *J Orofac Pain* 2010;24(3):237-54.
6. Magdaleno F, Ginestal E. Side effects of stabilization occlusal splints: a report of three cases and literature review. *Cranio* 2010;28(2):128-35.
7. Chate RA, Falconer DT. Dental appliances with inadequate occlusal coverage: a case report. *Br Dent J* 2011;210(3):109-10.
8. Magnusson T, Adiels AM, Nilsson HL, Helkimo M. Treatment effect on signs and symptoms of temporomandibular disorders--comparison between stabilization splint and a new type of splint (NTI). A pilot study. *Swed Dent J* 2004;28(1):11-20.
9. Madani AS, Abdollahian E, Khiavi HA, Radvar M, Foroughipour M, Asadpour H, Hasanzadeh N. The efficacy of gabapentin versus stabilization splint in management of sleep bruxism. *J Prosthodont* 2013;22(2):126-31.
10. Fan H, Yu W, Zhang Q, Cao H, Li J, Wang J, Shao Y, Hu X. Efficacy and safety of gabapentin 1800 mg treatment for post-herpetic neuralgia: a meta-analysis of randomized controlled trials. *J Clin Pharm Ther* 2014;39(4):334-42.
11. Jeske AH. *Mosby's Dental Drug Reference*, 11th ed. St Louis, Elsevier, 2014:339, 590.

Attachment 1 - Initial Patient Questionnaire

Name: _____

Date: _____

1. On the diagram below, please shade the areas of your pain:



2. When did your pain/problem begin? _____
3. What seemed to cause it to start? _____
4. What makes it feel worse? _____
5. What makes it feel better? _____
6. What treatments have you received? _____
7. When is your pain the worst? When first wake up ___ Later in the day ___ No daily pattern ___ Other ___
8. What does the pain keep you from doing? _____
9. Is your pain (check as many as apply): Ache ___ Pressure ___ Dull ___ Sharp ___ Throbbing ___ Burning ___ Other ___
10. Does your pain:

Wake you up at night?	Yes ___ No ___
Increase when you lie down?	Yes ___ No ___
Increase when you bend forward?	Yes ___ No ___
Increase when you drink hot or cold beverages?	Yes ___ No ___
11. Please circle the number below to indicate your present pain level.
(No pain) 0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 (The worst pain imaginable)
12. Please circle your average pain level during the past 6 months.
(No pain) 0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 (The worst pain imaginable)
13. Is your pain always present? Yes ___ No ___ How often do you have it? _____
14. Please describe any other symptoms that you associate with your problem. _____

15. Have you had:

Yes ___ No ___ Head or neck surgery?	
Yes ___ No ___ Whiplash or trauma to your head or neck?	
Yes ___ No ___ Shingles on your head or neck?	
16. Do you have:

Yes ___ No ___ A fever?	Yes ___ No ___	A certain spot that triggers your pain?
Yes ___ No ___ Nasal congestion or stuffiness?	Yes ___ No ___	Recurrent swelling or tenderness of joints other than in your jaw joint?
Yes ___ No ___ Movement difficulties of your facial muscles, eyes, mouth or tongue?	Yes ___ No ___	Morning stiffness in your body, other than with your jaw?
Yes ___ No ___ Numbness or tingling?	Yes ___ No ___	Muscle tenderness in your body (other than in your head or neck) for more than 50% of the time?
Yes ___ No ___ Problems with your teeth?		
Yes ___ No ___ Swelling over your jaw joint or in your mouth or throat?		

POST-TEST

Internet Users: This page is intended to assist you in fast and accurate testing when completing the “Online Exam.” We suggest reviewing the questions and then circling your answers on this page prior to completing the online exam.

(1.0 CE Credit Contact Hour) Please circle the correct answer. 70% equals passing grade.

1. **Up to what force should the masseter muscle be palpated?**
 - a. 0.5 kilogram
 - b. 1.0 kilogram
 - c. 1.5 kilogram
 - d. 2.0 kilogram
2. **Which sleeping position generally contributes to TMD pain?**
 - a. Side sleeping
 - b. Back sleeping
 - c. Stomach sleeping
 - d. Side and back sleeping
3. **If a TMD patient has a restricted opening, stretching the patient’s mandible beyond the restriction will generally**
 - a. enable the practitioner to identify the restriction location.
 - b. break through the restriction.
 - c. fracture the mandible.
 - d. None of the above
4. **In which circumstances would most general dentists refer a patient to a practitioner with greater expertise?**
 - a. Patient’s TMJ has a click
 - b. Patient’s TMJ has crepitus
 - c. Patient’s TMJ has palpation tenderness
 - d. Patient has a progressively increasing anterior open-bite
5. **When should a patient be considered for referral for a TMJ MRI?**
 - a. persistent jaw muscle pain
 - b. TMJ clicking when opening and closing
 - c. suspected joint pathology
 - d. complaint of bruxism at night
6. **Generally, the radiolucency on the lower anterior portion of the condyle (often called a pseudocyst) is due to the insertion of the**
 - a. lateral pterygoid muscle.
 - b. masseter muscle.
 - c. temporalis muscle.
 - d. medial pterygoid muscle.
7. **During the TMD physical exam, it is recommended the suboccipital muscles be palpated to determine if they**
 - a. are weak.
 - b. can reproduce the pain complaint.
 - c. are warm to the touch.
 - d. are hypertrophied.
8. **If the maxillary anterior teeth are prone to flare, for which arch is it recommended the appliance be fabricated?**
 - a. Maxillary
 - b. Mandibular
 - c. Neither, an appliance is contraindicated
 - d. Both, they are worn at the same time
9. **Full-coverage appliances are recommended rather than partial-coverage appliances, because they are**
 - a. more effective for TMD symptoms.
 - b. less likely to cause occlusal changes.
 - c. heavily promoted by their manufacturers.
 - d. Both a and b
10. **Which diagnosis can potentially lead to loss of vision?**
 - a. giant cell arteritis
 - b. herpetic neuralgia
 - c. trigeminal neuralgia
 - d. migraine headaches

Registration/Certification Information (Necessary for proper certification)

Name (Last, First, Middle Initial): _____

PLEASE PRINT CLEARLY

Street Address: _____ Suite/Apt. Number _____

City: _____ State: _____ Zip: _____

Telephone: _____ Email: _____

State(s) of Licensure: _____ License Number(s): _____

Preferred Dentist Program ID Number: _____ Check Box If Not A PDP Member

AGD Mastership: Yes No

AGD Fellowship: Yes No Date: _____

Please Check One: General Practitioner Specialist Dental Hygienist Other

FOR
OFFICE
USE
ONLY

Evaluation - Evaluation and Treatment of TMD Patients 6th Edition

Providing dentists with the opportunity for continuing dental education is an essential part of MetLife's commitment to helping dentists improve the oral health of their patients through education. You can help in this effort by providing feedback regarding the continuing education offering you have just completed.

Please respond to the statements below by checking the appropriate box, using the scale on the right.

1 = POOR

5 = EXCELLENT

	1	2	3	4	5	
1. How well did this course meet its stated educational objectives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. How would you rate the quality of the content?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Please rate the effectiveness of the author.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Please rate the written materials and visual aids used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. The use of evidence-based dentistry on the topic when applicable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> N/A
6. How relevant was the course material to your practice?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. The extent to which the course enhanced your current knowledge or skill?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. The level to which your personal objectives were satisfied.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Please rate the administrative arrangements for this course.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

10. How likely are you to recommend MetLife's CE program to a friend or colleague? *(please circle one number below:)*

10
9
8
7
6
5
4
3
2
1
0
 extremely likely neutral not likely at all

What is the primary reason for your 0-10 recommendation rating above?

11. Please identify future topics that you would like to see:

Thank you for your time and feedback.



To complete the program traditionally, please mail your post test and registration/evaluation form to:
MetLife Dental Quality Initiatives Program | 501 US Highway 22 | Bridgewater, NJ 08807