Appendices

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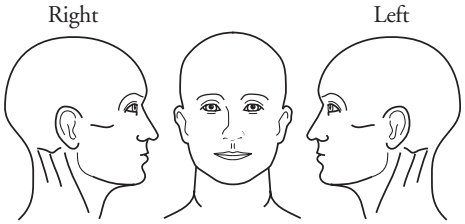
Appendix 1

Initial Patient Questionnaire

Name: _____ Date: _____

1. On the diagram, please shade the areas of your pain: Right ❍ Left ❍



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:
Awake you 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 symptoms other than pain that you associate with your problem.
_____
_____
_____
_____

15. Have you had:
Head or neck surgery? Yes ❍ No ❍
Whiplash or trauma to your head or neck? Yes ❍ No ❍
Shingles on your head or neck? Yes ❍ No ❍

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

17. Is your problem worse:
When swallowing or turning your head? Yes ❍ No ❍
After reading or straining your eyes? Yes ❍ No ❍

18. Do your jaw joints make noise? Yes ❍ No ❍ If yes, which: Right ❍ Left ❍

19. Have you ever been unable to open your mouth wide? Yes ❍ No ❍
If yes, please explain: _____
_____
_____

20. Have you ever been unable to close your mouth? Yes ❍ No ❍ If yes, please explain:
_____
_____
_____

21. Do you sleep well at night? Yes ❍ No ❍ Please explain: _____
_____
_____

22. How often are you tense, aggravated or frustrated during a usual day? Always ❍
Half the time ❍ Seldom ❍ Never ❍

23. How often do you feel depressed during a usual day? Always ❍ Half the time ❍
Seldom ❍ Never ❍

24. Do you have thoughts of hurting yourself or committing suicide? Yes ❍ No ❍

25. Do you play a musical instrument and/or sing more than 5 hours in a typical week?
Yes ❍ No ❍

26. What percent of the day are your teeth touching? ____%

27. Are you aware of clenching or grinding your teeth: When sleeping? ❍
While driving? ❍ When using a computer? ❍ Other times? ❍ Not aware? ❍

28. Are you aware of oral habits such as: Chewing your cheeks? ❍ Chewing objects? ❍
Biting your nails or cuticles? ❍ Thrusting your jaw? ❍ Other habits? ❍
Not aware? ❍

29. What treatment do you think is needed for your problem? _____
_____
_____

30. Is there anything else you think we should know about your problem? _____
_____
_____

31. If your age is 50 or older, please circle the correct response:
    Does your pain occur only when you eat? Yes ❍ No ❍
    Are you pain free when you open wide? Yes ❍ No ❍
    Do you have unexplainable scalp tenderness? Yes ❍ No ❍
    Are you experiencing unexplainable or unintentional weight loss? Yes ❍ No ❍
    Do you have significant morning stiffness lasting more than 1/2 hour? Yes ❍ No ❍
    Do you have visual symptoms or a visual loss? Yes ❍ No ❍

To the best of my knowledge, the above information is correct, and permission is granted for a written report to be sent to my referring and treating doctors and dentists.

Signature _____ Date _____

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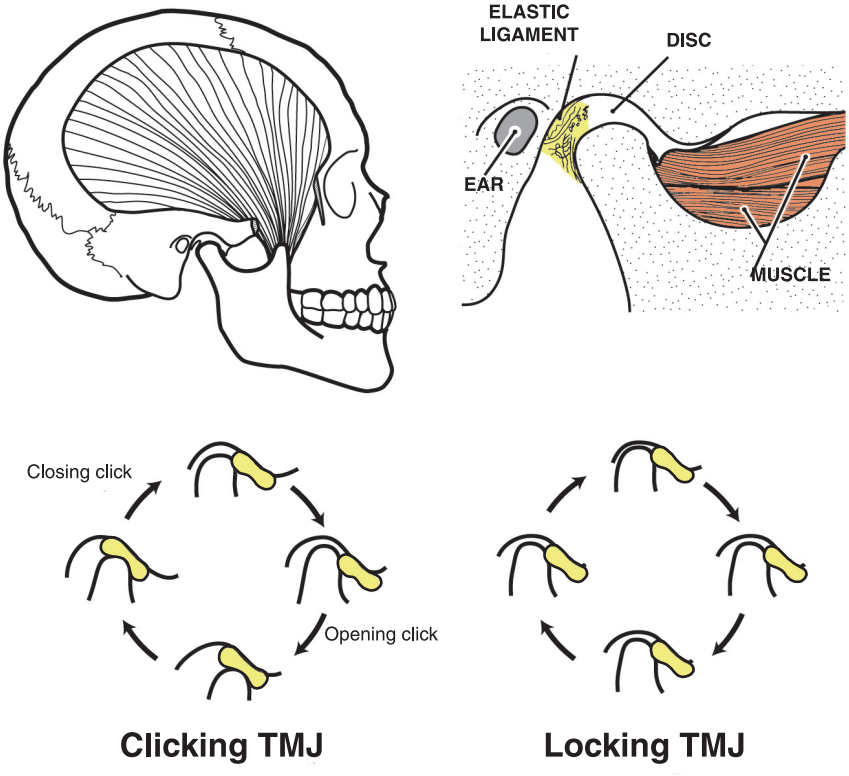
Appendix 2

TMJ Disc Displacements



Appendix 3

TMD Self-management Therapies

Your dentist determined you have a temporomandibular disorder that is often referred to as TMD. The "T" in TMD stands for the *temple*, "M" for the *mandible* or jaw, and "D" for a *disorder* within this complex. This disorder is usually due to an overuse of this system.

We use this system for many activities (talking, eating, yawning, laughing) and, when we are not engaged in these, we need to allow our jaw muscles and joints to relax. Many people have developed habits that do not permit their muscles or joints to relax for a sufficient amount of time. The following will help instruct you on how to reduce the TMD pain you are having:

1. Apply heat, ice, or a combination of heat and ice to the painful areas. Most patients prefer heat, but, if that increases your pain, use the combination or just the ice.
    a. Use heat for 20 minutes two or four times each day. Some patients prefer to use moist heat, whereas others find dry heat just as effective and less of a hassle. Moist heat can be obtained by wetting a thin washcloth with very warm water. The washcloth can then be kept warm by wrapping it around a hot-water bottle or placing it against a heating pad separated by a piece of plastic wrap.
    b. Use the combination of heat and ice two to four times each day. Apply heat to the painful area for approximately 5 minutes (less if it aggravates your pain). Then apply an ice cube wrapped in a thin washcloth.
    c. Apply ice wrapped in a thin washcloth until you first feel some numbness and then remove it (this usually takes about 10 minutes).
2. Eat soft foods like casseroles, canned fruits, soups, eggs, and yogurt. Do not chew gum or eat hard foods (e.g., raw carrots) or chewy foods (e.g., caramels, steak, and bagels). Cut other foods into small pieces, evenly divide the food on both sides of your mouth, and chew on both sides.
3. Avoid caffeine because it stimulates your muscles to contract and hold tension. Caffeine or caffeine-like drugs are found in coffee, tea, most sodas, and chocolate. Decaffeinated coffee also has some caffeine, whereas Sanka has none.
4. Your teeth should never touch except lightly when you swallow. Closely monitor yourself for a clenching or grinding habit. People often clench their teeth when they are irritated,

drive a car, use a computer, or concentrate. Learn to keep your jaw muscles relaxed, teeth separated, and tongue resting lightly on the roof of your mouth just behind your upper front teeth.

5. Observe for and avoid additional habits that put unnecessary strain on your jaw muscles and joints. Some habits include, but are not limited to, resting your teeth together; resting your jaw on your hand; biting your cheeks, lips, fingernails, cuticles, or any other objects you may put in your mouth; pushing your tongue against your teeth; and holding your jaw in an uncomfortable or tense position.

6. Posture appears to play a role in TMD symptoms. Try to maintain good head, neck, and shoulder posture. You may find that a small pillow or rolled towel supporting your lower back may be helpful. Ensure you maintain good posture when using a computer and avoid poor postural habits such as cradling the telephone against your shoulder.

7. Your sleep posture is also important. Avoid positions that strain your neck or jaw, such as stomach sleeping. If you sleep on your side, keep your neck and jaw aligned.

8. Set aside time once or twice a day to relax and drain the tension from your jaw and neck. Patients often benefit from simple relaxation techniques such as sitting in a quiet room while listening to soothing music, taking a warm shower or bath, and slow deep breathing.

9. Restrain from opening your mouth wide, such as yawning, yelling, or prolonged dental procedures.

10. Use anti-inflammatory and pain-reducing medications, such as Aleve, ibuprofen, Tylenol, aspirin, and Percogesic, to reduce joint and muscle pain. Avoid those with caffeine, e.g., Anacin, Excedrin, or Vanquish.

There is no cure for TMD, and you may need to follow these instructions for the rest of your life. Your dentist may suggest other therapies in addition to these instructions. No single therapy has been shown to be totally effective for TMD, and a percentage of patients receiving therapies report no symptom improvement (i.e., 10 to 20 percent of patients receiving occlusal appliances report no improvement). Based on your symptoms and identified contributing factors, an individualized treatment approach will be recommended that may be revised as your symptom response is observed.

Appendix 4

Occlusal Appliance Care Instructions

Your appliance is designed to protect and stabilize your jaw muscles and joints. It should help you feel more comfortable and allow healing to occur. It is adjusted to hit evenly on your back teeth. As your muscles relax and your TMJ inflammation resolves, it is common for your bite on the appliance to change so that your back teeth no longer hit evenly. Your appliance will need to be periodically adjusted for these changes. To maximize the benefits derived from your appliance, follow these recommendations:

1. Do not bite on your appliance. The appliance is a reminder to help you learn to keep your teeth apart and jaw muscles and tongue relaxed. Constantly monitor your jaw position and tension, and remember to keep your tongue up and teeth off of the appliance.
2. It is normal for the appliance to feel tight when you first put it in. If your appliance hurts your teeth or gums, leave it out and come back to have it adjusted. Occasionally the appliance may cause a temporary increase in jaw tension or joint noises, especially when you are first getting used to wearing it.
3. Never wear your appliance when you eat.
4. Clean the inside and outside of your appliance at least daily with your toothbrush and toothpaste. It can be soaked with baking soda or a denture-cleaner solution to help clean it.
5. When you are *not* wearing your appliance:
   a. Be careful where you place it, because it is very fragile.
   b. Do not let it lie around, because dogs and cats enjoy chewing on such items.
   c. Do not leave it in a warm place (e.g., inside your car on a warm day), because it may warp.
   d. If your appliance will be out of your mouth for more than 8 hours, store it in a moist environment. You can place it with a few drops of water in a ziplock bag or margarine tub.
6. Some patients find their appliance causes them to salivate, whereas others find it causes them to have a dry mouth. This is generally only a temporary situation.
7. When you take your appliance out, your jaw may take a few seconds to adjust back to the way your teeth normally fit together.

8. ALWAYS BRING YOUR APPLIANCE TO ALL DENTAL APPOINTMENTS. In the beginning, it will need to be adjusted for the changes that occur with your muscles and TMJs. Any dental work (restorations, sealants, etc.) may cause it not to fit and/or occlude properly, and it should be checked for changes.

Appendix 5

Jaw Muscle-stretching Exercise

People unconsciously stretch many of their muscles throughout the day. Patients who have jaw muscle stiffness or pain often find a significant improvement in their symptoms with this jaw-stretching exercise. Your dentist believes your symptoms will improve if you perform this simple jaw-stretching exercise 6 times a day, between 30 and 60 seconds each time, at the opening and duration you determine best for you.

It is best to warm your jaw muscles before you stretch by opening and closing them slowly about 10 times. You may also warm your muscles by applying heat to them (allow time for the heat to penetrate into your muscles). While stretching, you need to concentrate on relaxing your lips, facial muscles, and jaw. Do not bite on your fingers while stretching; they are only to give you a guide for the width you are stretching.

To determine what opening and duration are best for you, the first time you stretch, bend your index finger and place the middle knuckle between your upper and lower front teeth (see Figure 1). Hold this position for 30 seconds. If this does not aggravate your symptoms, the second time you stretch, increase the time to 45 seconds. If this does not aggravate your symptoms, the next time increase it to 60 seconds. If this does not aggravate your symptoms, increase your opening width to 2 fingertips (see Figure 2) and cut your time back to 30 seconds. Continue increasing your time and opening in this manner, but do not go beyond 3 fingertips. Find the largest opening and duration that does not cause even the slightest discomfort or aggravation of your symptoms and use this each time you stretch. If you experience any discomfort or aggravation, decrease your opening or time.

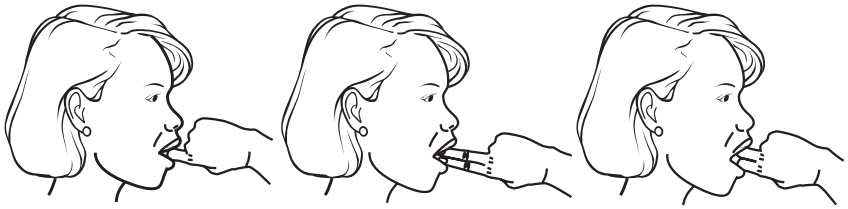


Figure 1 Figure 2 Figure 3

As your symptoms improve or if you have a flare-up, you will need to increase or decrease this opening and time. Be very careful not to cause yourself any aggravation with this exercise, because this may hurt your progress.

Patients report this exercise does not provide immediate symptom improvement, but takes about 1 to 2 weeks before benefits are noticed. Similarly, stopping does not cause immediate loss of these benefits, but also tends to take 1 to 2 weeks to be noticed. With the normal symptom fluctuation most TMD patients experience, it is often difficult for them to relate their symptom improvement or aggravation to the starting or stopping of this exercise.

Appendix 6

Posture Improvement Exercises

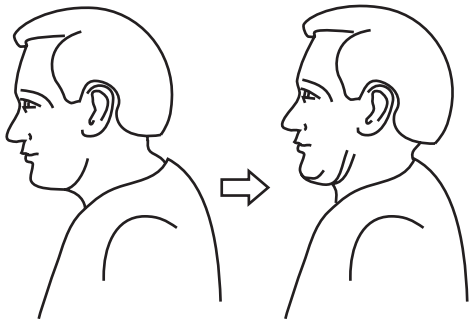
INSTRUCTIONS	
Chin tucks	Tuck your chin back over the notch above your sternum, so that your ear is in line with the tip of your shoulder.
Chest stretch	Stand in a doorway or a the corner of a room. Lean forward, with your hands on the wall, until you feel significant stretch across the front of your chest. Do this exercise as requested in both positions.
Wall stretch	Stand with your back against the wall and your arms positioned as shown in the drawing. Straighten your upper back and flatten your lower back against the wall. Press your head back with your chin down and in, and pull your elbows back against the wall. Do this exercise as requested in both positions.
On-your-back chest stretch	Lie on your back with your hands clasped behind your head. As you exhale, slowly bring your elbows together touching in front of your face. As you inhale, slowly draw the elbows apart until they touch the floor.
Face-down arm lifts	Lie on your stomach as shown in the drawings (position 1 has the elbows at shoulder level and bent at 90°, whereas position 2 has elbows at ear level). Lift your arms, head, and chest off the floor and repeat until you can only move 50 percent through the range or to fatigue. Do this in both positions.

If these exercises cause any discomfort or aggravate your pain, discontinue them until you can discuss it with your provider.

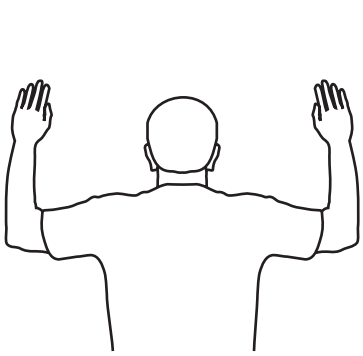
Stretching should be done in a slow, gradual, easy, and painless manner. Move to the point of mild tension and hold. Do not bounce!

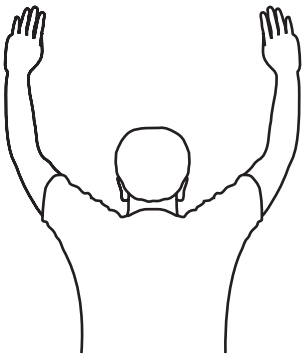
EXERCISES

Chin Tucks
Perform: 10 times on the hour
Hold: 5 seconds

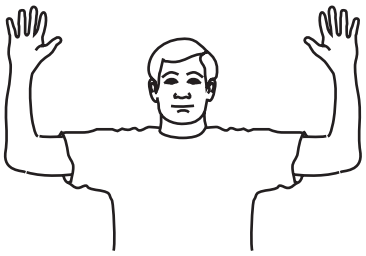


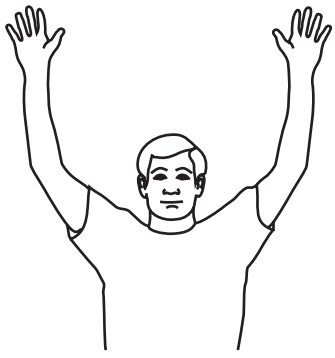
Chest Stretch
Perform: 3 times a day, 2 repetitions
Hold: 15 seconds



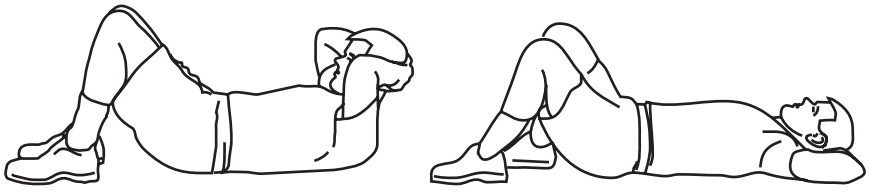


Wall Stretch
Perform: 3 times a day, 2 repetitions
Hold: 15 seconds





On-your-back Chest Stretch
Perform: before you retire, 10 repetitions



Face-down Arm Lifts
Perform: once a day, 5 days/week

Appendix 7

Laboratory Occlusal Appliance Instructions

Please fabricate the occlusal appliance circled below. The patient is scheduled for insertion of this appliance on _____.

Maxillary 0.15-inch Soft Thermoplastic Appliance and Maxillary Dual Laminate Thermoplastic Appliance

Please debubble cast(s), do not block out undercuts, carry the facial portion of the appliance only to the gingival margin and extend the lingual portion 5 mm along the gingiva.

For the dual laminate thermoplastic appliance, once the dual laminate material is on the articulator, adjust the incisal pin so the closest opposing tooth is 1 mm from the occlusal surface, enabling the thickness of the added acrylic to be 1 mm or more. Please add acrylic to the occlusal surface so the occlusal surface is flat without cuspal indentations, the nonsupporting posterior cusps are not in contact, the protrusive and canine guidances provide minimal posterior disocclusion (1/2 to 1 mm), and the occlusal line angles are rounded. Thank you.

Mandibular 0.15-inch Soft Thermoplastic Appliance and Mandibular Dual Laminate Thermoplastic Appliance

Please debubble cast(s), do not block out undercuts, carry the facial portion of the appliance only to the gingival margin and extend the lingual portion 10 mm below the gingival margin, keeping it short of lingual tori, vestibule, and frenum.

For the dual laminate thermoplastic appliance, once the dual laminate material is on the articulator, adjust the incisal pin so the closest opposing tooth is 1 mm from the occlusal surface, enabling the thickness of the added acrylic to be 1 mm or more. Please add acrylic to the occlusal surface so the occlusal surface is flat without cuspal indentations, the nonsupporting posterior cusps are not in contact, the protrusive and canine guidances provide minimal posterior disocclusion (1/2 to 1 mm), and the occlusal line angles are rounded. Thank you.

MAXILLARY 2-MM HARD THERMOPLASTIC APPLIANCE AND MAXILLARY ACRYLIC STABILIZATION APPLIANCE

Please:

1. Debubble the cast(s) and block out (a) deep grooves on and between the teeth and (b) all undercuts at 0°, with the exception of *no* blockout in the buccal embrasures of the posterior teeth.
2. Survey the cast and extend acrylic, so that (a) the buccal extent is carried 1/2 mm below the height of contour for the posterior teeth, (b) the labial extent is carried only 1 to 11/2 mm beyond the incisal edge of the anterior teeth, and (c) the lingual portion extends 5 mm along the gingiva.
3. For the acrylic stabilization appliance, adjust the incisal pin so the appliance's minimum occlusal thickness is 3 mm. Fabricate the occlusal surface so the surface is flat without cuspal indentations, the nonsupporting posterior cusps are not in contact, the protrusive and canine guidances provide minimal posterior disocclusion (1/2 to 1 mm), and the occlusal line angles are rounded. Please make the facial acrylic so it is 1 mm thick and flows with the contours of the teeth and make the lingual flange so it is only 1 mm thick.

Thank you.

MANDIBULAR 2-MM HARD THERMOPLASTIC APPLIANCE AND MANDIBULAR ACRYLIC STABILIZATION APPLIANCE

Please:

1. Debubble the cast(s) and block out (a) deep grooves on and between the teeth and (b) all undercuts at 0°, with the exception of *no* blockout in the buccal undercuts of the posterior teeth.
2. Survey the cast and extend acrylic, so that (a) the buccal extent is carried 1/2 mm below the height of contour for the posterior teeth, (b) the labial extent is carried only 1 to 11/2 mm beyond the incisal edge of the anterior teeth, and (c) the lingual extends 10 mm below the gingival margin, keeping it short of lingual tori, vestibule, and frenum.
3. For the acrylic stabilization appliance, adjust the incisal pin so the appliance's minimum occlusal thickness is 3 mm. Fabricate the occlusal surface so the surface is flat without cuspal indentations, the nonsupporting posterior cusps are not in contact, the protrusive and canine guidances provide minimal posterior disocclusion (1/2 to 1 mm), and the occlusal line angles are rounded. Please make the posterior facial acrylic so it is 1 mm thick and flows with the contours of the teeth and make the lingual surface so it is only 1 mm thick.

Thank you.

Appendix 8

Example of Dental Record Entries

Initial Exam

S: Comprehensive TMD evaluation; CC: constant Rt preauricular dull/pressure pain, 4/10 upon awaking and 1/10 later in the day. Approximately once a week, she also awakes with 2/10 Rt temporal pain lasting approximately 2 hours. The pain began approximately 3 months ago after an increase in stress at work. The "Initial Patient Questionnaire" responses were reviewed with Pt.

O: Soft tissue and teeth were WNL. Palpation of selected masticatory and cervical structures revealed tenderness of her Rt and Lt masseter and Rt temporalis muscles, and Rt TMJ. The Rt masseter and Rt temporalis muscle palpations reproduced her pain complaints. A reciprocal click was present in her Rt TMJ. ROM: 38 mm opening, 6/6/5 (right lateral, left lateral, and protrusive).

A: Clinical TMD Dx: Myofascial pain, Rt TMJ inflammation, and Rt TMJ disc displacement with reduction. Nocturnal and daytime parafunctional habits (Pt relates her teeth are touching 30 percent of the day), tension, and caffeine consumption appear to be her major perpetuating contributing factors.

P: Explained to Pt the mechanics of her Rt TMJ reciprocal click. Written and oral TMD self-management instructions given; Pt agreed to decrease her caffeine consumption to 1 cup of coffee a day. Max and man alginate imp and bite registration taken for fab of a max acr stabilization appliance that Pt to wear at night. Pt reappt in 2 weeks for insertion of occlusal appliance.

Insertion Appointment

Re: Myofascial pain, Rt TMJ inflammation, and Rt TMJ disc displacement with reduction. Pt reports slt improvement, which she attributes to implementing the TMD self-management instructions. Her Rt preauricular pain upon awaking is now 3/10, and she has

only intermittent 1/10 daytime symptoms; she continues to have her weekly 2/10 Rt temporal pain. Ins max acr stabilization appliance for Pt to wear at night. Written and oral appliance care instr given and reviewed TMD self-management instructions. Pt reappt in 3 weeks for follow-up.

FOLLOW-UP

Re: Myofascial pain, Rt TMJ inflammation, and Rt TMJ disc displacement with reduction. Pt reports significant symptom improvement and has only 1/10 preauricular morning pain approximately once a week. Adj stabilization appliance and Pt reappt in 2 months for follow-up or to RTC sooner if improvement does not continue.

FOLLOW-UP

Re: Myofascial pain, Rt TMJ inflammation, and Rt TMJ disc displacement with reduction. Pt reports as long as she wears her appliance at night she has no TMD discomfort. ROM: 48 mm opening, palpation of selected masticatory structures revealed minimal tenderness, and reciprocal click is still present in Rt TMJ. Adj stabilization appliance and Pt to wear appliance nightly. Pt to RTC annually for follow-up or sooner if symptoms return, appliance needs adj, or another problem develops.

Appendix 9

Examples of Physical Therapy Consultations

Dentists commonly refer TMD patients to physical therapists to improve TMD pain, TMJ function, range of motion, daytime or sleeping postures, and/or neck symptoms. In addition to improving a patient's symptoms, a goal in physical therapy is to teach the patient to maintain this improvement. It has been demonstrated that physical therapy performed in conjunction with occlusal appliance therapy attains better improvement in TMD symptoms.

Two examples are presented below: the first is a patient whose TMD symptoms are limited to the masticatory system, and the second is a patient who has concomitant neck pain and the physical therapist is requested to treat just the cervical myofascial pain.

These referrals can be made on a prescription pad. Many third-party payers require also that the requested frequency and duration of treatment be documented; two to three times a week for a month is a reasonable request, and some third-party payers will allow practitioners to request "as therapist recommends." Inform the physical therapist of any precautions he or she should be aware of (e.g., previous surgery, tumor, screws, or wires in the region) and medical disorders that could complicate therapy (e.g., angioedema).

CC: Constant 6/10 Rt preauricular pain.

Dx: Rt TMJ inflammation, myofascial pain, and Rt TMJ disc displacement with reduction.

Please evaluate and treat. Pt also relates she intermittently sleeps on her stomach and cannot stop. Would you please help Pt break this habit? Thank you.

Precautions: None.

Pt was given an occlusal appliance and TMD self-management instructions.

CC: Constant 5/10 bilateral preauricular and masseter pain, and constant 5/10 neck pain.

Dx: Masticatory and cervical myofascial pain.

Please evaluate and treat Pt's cervical disorder. Palpation of her cervical muscles reproduced her masticatory pain. It is believed that the local component of her masticatory symptoms can be adequately relieved through TMD therapy, but need treatment of her neck pain to relieve the cervical component.

Precautions: None.

Pt was given TMD self-management instructions and will be give an occlusal appliance at her next appointment.

Clinical experience suggests referring TMD patients to physical therapy for any of the following:

1. The patient has neck pain. TMD patients with neck pain do not respond to TMD therapy as well as those without neck pain. Some TMD symptoms primarily come from the neck, and it has been observed that some TMD patients who have their cervical trigger points inactivated report a substantial decrease in their pain.
2. The patient has cervicogenic headaches, which are headaches that originate in the neck, and clinically it appears TMD patients tend to hold more tension in their masticatory muscles when they have a headache. Therefore, TMD patients with cervicogenic headaches who have their neck treated should have fewer headaches and may also obtain substantial TMD symptom improvement.
3. The patient has moderate to severe forward head posture. These patients have been shown to be most likely to derive significant TMD symptom improvement from posture exercises in combination with TMD self-management instructions.
4. The patient's TMD symptoms increase with abnormal postural activities. Instructing these patients in body mechanics (teaching patients how to perform tasks without straining the body) should help them maintain good posture, thereby improving their TMD symptoms.
5. The patient desires help in changing poor sleep posture. Stomach sleeping perpetuates TMD and neck symptoms and, if a patient cannot stop sleeping on his or her stomach, physical therapists are trained to help patients change their sleep position.
6. The patient did not derive adequate TMD symptom relief from other therapies. Physical therapists are trained to treat musculoskeletal disorders throughout the body and can apply their skills to the masticatory system.
7. The patient is to have TMJ surgery. It has been shown that patients who receive physical therapy following TMJ surgery have better results. It is appropriate for these patients to be given a physical therapy referral prior to surgery in order that they may learn about and possibly start the postsurgical exercises, and schedule the recommended postsurgical appointments.

Appendix 10

Examples of Psychology Consultations

It is well recognized that daytime parafunctional habits, tension, stress, anxiety, anger, depression, catastrophizing (thinking the worst of situations), pain-related beliefs, not coping well with "life's stuff," etc., negatively impact patients' TMD symptoms and their ability to improve with conservative TMD therapy. Cognitive-behavioral interventions are adjunctive TMD therapies that attempt to help patients reduce their daytime parafunctional habits and psychosocial contributing factors.

Patients with significant persistent daytime habits and/or psychosocial contributors often need additional help from a practitioner trained in cognitive-behavioral interventions. These interventions primarily encompass habit reversal, relaxation, hypnosis, biofeedback, stress management, and cognitive therapy (focuses on changing patients' distorted thoughts).

It has been observed that some psychologists desire to perform psychological testing prior to the cognitive-behavioral intervention to identify which therapies may be most beneficial for the patient. Other psychologists may provide a standard brief cognitive-behavioral intervention and may test only those patients who do not sufficiently improve.

Referring patients to a psychologist can be as easy as giving patients the psychologist's name and asking them to make an appointment. At the initial visit, the patient would tell the psychologist the problem, and the psychologist would assess the patient's condition.

It is my preference to write a note (as the examples below) to help the psychologist better understand my concerns. In the first example, the psychologist will probably primarily use habit-reversal therapy and, in the second example, primarily use stress management therapy:

Mrs. Jones has long-standing 6/10 daytime TMD symptoms that are primarily due to overloading her masticatory system from daytime oral habits. She has unsuccessfully attempted to break these habits on her own, and she is aware she touches her teeth together approximately 90 percent of the day and unconsciously squeezes them together when she becomes busy, frustrated, or deep in thought. Mrs. Jones would like your assistance to help her break her daytime oral parafunctional habits. She has an occlusal appliance that she wears for her nocturnal oral parafunctional habits. Thank you.

Miss Smith complains of 6/10 bilateral jaw pain, which was diagnosed as myofascial pain. Her primary contributing factor appears to be work-related stress. Her pain started 4 months ago, right after she started a new job that she finds very busy, hectic, and stressful. She would like to learn stress management and coping skills to better deal with her work situation. Would you please evaluate and treat as you feel is most appropriate? Thank you.

Appendix 11

Working with Insurance Companies

States that have laws that mandate medical insurance companies cover certain aspects of TMD therapy are Arkansas, California, Florida, Georgia, Illinois, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, New Mexico, North Carolina, North Dakota, Texas, Vermont, Virginia, Washington, West Virginia, and Wisconsin. Small private insurance companies may be exempt from the law and may avoid covering these state-mandated procedures.

The Patient Advocacy Group listed in "Sources For Additional TMD Information" (Appendix 12) should be able to provide you with a copy of the portion of your state law that covers TMD mandated procedures. Additionally the American Academy of Orofacial Pain (also listed in Appendix 12) has an Access to Care Committee that should be able to provide you with answers to many of your insurance questions.

Electronic filing and proper coding tend to speed payment reimbursement and decrease the number of "misplaced" claim forms. Coding manuals and software are offered by one of the businesses listed in Appendix 12.

Medical TMD Diagnosis Codes
ICD-9

	TMJ Disorders
524.60	Temporomandibular joint disorders, unspecified
524.61	TMJ adhesion and ankylosis (bony or fibrous)
524.62	TMJ arthralgia (TMJ inflammation, as used in this book)
524.63	Articular disc disorder (with or without reduction)
524.69	Other specified temporomandibular joint disorders
830.1	TMJ dislocation
848.1	TMJ sprain or strain
	Muscular Disorders
728.85	Spasm of muscle (myospasm)
729.1	Myalgia and myositis (also use for myofascial pain)

Dental and medical TMD procedure codes

CDT-4	CPT	
		Initial Visit
D0150		Comprehensive oral evaluation [for normal TMD evaluation]
D0160		Detailed and extensive oral evaluation [for complex TMD evaluation]
D9310		Consultation
D9920		Behavioral management, by report [for each 15-minute increment]
		Occlusal Appliance Insertion
D7880	21110	Occlusal orthotic device, by report
D9920		Behavioral management, by report [for each 15-minute increment]
		Follow-up
D9920		Behavioral management, by report [for each 15-minute increment]
D9430		Office visit for observation [no other services provided]
		Other Codes
D0330	70355	Panoramic film
D0321	70328	Radiological examination, TMJ, open and closed mouth, unilateral
D0321	70330	Radiological examination, TMJ, open and closed mouth, bilateral
D0321	76101	Radiological examination, TMJ tomogram, unilateral
D0321	76102	Radiological examination, TMJ tomogram, bilateral
D0460		Pulp vitality tests
D7899		Orthotic repair, by report
D7899		Chairside orthotic reline, by report
D9110		Palliative (emergency) treatment of pain
D9210		Local anesthesia not in conjunction with operative or surgical procedure
D9610		Therapeutic drug injection, by report
D9940		Occlusal guard, by report [for bruxism, if for TMD use D7880]

CPT Codes for Office Visit and Consultation

99201 to 99205	New patient office visit
99211 to 99215	Established patient office visit
99241 to 99245	Office consultation [for new or established patient]

Sources:

ICD-9: *Hospital & Payer ICD-9-CM*, 6th edition. Salt Lake City: Medicode, 2000.

CDT-4: *Current Dental Terminology*, 4th edition. Chicago: American Dental Association, 2002.

CPT: *Current Procedural Terminology 2003*. Chicago: AMA, 2002.

Appendix 12

Sources for Additional TMD Information

Patient Brochures

Among the many pamphlets about TMD available from various sources, the following pamphlets are preferred:

1. Temporomandibular Disorders (TMD), brochure OP-23. This is my favorite brochure and it is sponsored by the National Institute of Dental Research. It states that orthodontics, crowns, bridges, and occlusal adjustments are of little value. The brochure is free and can be ordered from the National Oral Health Information Clearinghouse on line (up to 50 copies) at www.nohic.nidcr.nih.gov or via telephone (301-402-7364).
2. The American Academy of Orofacial Pain (AAOP) has a good patient brochure that can be viewed on their Web site (www.aaop.org/AAOP) and ordered through their central office (856-423-3629).

Patient Advocacy Group

The TMJ and Orofacial Pain Society of America is a nonprofit organization that provides help with patient issues, publishes quarterly newsletters, and should be able to provide you with the mandated law insurance information for your state. Visit their Web site (www.tmjsociety.org) or telephone them (916-444-1985).

Books for Patients

During your interaction with patients, you may feel one enjoys reading, is self-motivated, and would benefit from reading one or more of the following books:

1. *Taking Control of TMJ* (1999), by Robert O. Uppgaard $13.95, gives patients more information about their TMD condition, self-management therapies, neck exercises, stress management, and many other suggestions.
2. *Feeling Good: The New Mood Therapy* (1999), by David D. Burns, $7.99, helps patients understand how our thoughts affect our moods and how to improve them.

3. *No More Sleepless Nights* (1996), by Peter Hauri, Shirley Linde, and Philip Westbrook, $16.95, helps patients with a sleep disorder better understand their problem and use techniques to attempt to improve their sleep.

TMD Practice Management Businesses

1. TMData Resources offers practice development consultations and a full line of services exclusively for TMD and snoring practices. They write and distribute TMD-related and snoring-related educational materials for doctor education, patient education, and physician referrals. They support TMJ patients with information and a national list of doctors who treat TMD. You can view their products and services (www.tmdataresources.com) or telephone them (800-533-5121).
2. Nierman Practice Management offers manuals and software for diagnostic and procedural codes, narrative reports, and other correspondence for collecting medical and dental insurance benefits for treatment of TMD. They also offer services for orthodontics, implants, general and esthetic dentistry, and sleep disorders. You can view their products and services (www.rosenierman.com) or telephone them (800-879-6468).

Professional TMD Organizations

There are two primary TMD professional organizations. They provide educational meetings, offer staff training at their meetings, worked with the American Dental Association to make TMD a recognized specialty, have diplomate certification boards, and each publishes one of the two journals listed below and provides other beneficial activities:

1. American Academy of Orofacial Pain (AAOP). Their Web site can be viewed at www.aaop.org. The AAOP Central Office telephone number is 856-423-3629.
2. American Academy of Craniofacial Pain (AACFP). Their Web site can be viewed at www.aacfp.org. The AACP Central Office telephone number is 800-322-8651.

Textbooks

The two outstanding TMD books are:

1. Okeson JP. *Management of Temporomandibular Disorders and Occlusion*, 5th edition. St Louis: CV Mosby, 2003. Telephone 800-621-0387.
2. American Academy of Orofacial Pain, with Okeson JP (ed). *Orofacial Pain: Guidelines for Assessment, Diagnosis and Management*. Chicago: Quintessence, 1996. Telephone 800-621-0387.

TMD Studies

TMD studies can be found in most dental and medical journals. The first two names below are journals that are dedicated primarily to TMD, and the third is a 16-page publication, printed 6 times a year, entailing recent TMD articles and their summaries:

1. *Journal of Orofacial Pain.* Quintessence. Telephone 800-621-0387.
2. *Cranio: The Journal of Craniomandibular Practice.* Chroma. Telephone 800-624-4141.
3. *TMJ Update.* Anadem. Telephone 800-633-0055.