

## TMJ SYMPTOM MANAGEMENT

1. **EAT A THOUGHTFUL DIET:** Eat soft foods like soup, eggs, fish, cooked vegetables, pasta, etc. Cut your food into small pieces and chew slowly. Avoid hard, crunchy and chewy foods, as well as thick or large foods that require your mouth to open wide. Do not eat only mush because your muscles will recover faster if you use them, but also do not eat anything that hurts. If you experience pain during or after a meal, chances are you ate the wrong food. Do not chew gum.
2. **ALTERNATE ICE/HEAT:** Ice muscles and joints for 5 minutes and then follow with moist heat.
3. **MASSAGE MUSCLES:** Massage Aspercreme, BenGay, or Biofreeze on sore muscles for 2-3 minutes, 3-4 times a day. There are a number of good YouTube videos to help guide your technique.
4. **TAKE MEDICATIONS AS RECOMMENDED BY DOCTOR:**
  1. Ibuprofen: Take 400-800mg Ibuprofen every 4-6 hours the next 7 days to break the pain cycle and reduce inflammation.
  2. Flexeril: Take 10mg before sleep to reboot the deep sleep cycle and recover the musculoskeletal system. If you wake up drowsy, cut the dose in half.
5. **AVOID EXTREME JAW MOVEMENT:** This includes any movements or motions that cause discomfort (nail biting, chewing ice, biting pens, etc.) If you are wearing elastics with your braces they should be discontinued until symptoms subside.
6. **COGNITIVE AWARENESS:** Don't let your teeth touch unless you are chewing, swallowing, or speaking. Avoid clenching your teeth during daytime.
7. **GET GOOD SLEEP:** Abstain from drinking alcohol close to bedtime hours. Avoid looking at electronics prior to going to bed (cellphone, laptop, tv, etc). Try to get 7-8 hours of restful sleep every night.
8. **MINIMIZE CAFFEINE, STAY HYDRATED:** Minimize all caffeine (even chocolate) and nicotine use. Stay hydrated with water.
9. **EXERCISE REGULARLY:** Exercise builds endorphins and reduce daily stress. Endorphins are the body's natural painkillers.
10. **MAINTAIN GOOD POSTURE:** Do not cradle your phone between your shoulders and neck. Reduce the amount of time you are texting. A forward head position for lengths of time wreaks havoc on jaws and neck muscles.
11. **USE YOUR OCCLUSAL APPLIANCE AS RECOMMENDED:** Alert your doctor if the appliance is worsening symptoms or if you find yourself wearing it all hours of the day. Bring appliance to all future visit.
12. **STRESS REDUCTION:** Look for areas in your life that are stressful and modify them to reduce excess pressure and stress.
13. **PRACTICE PHYSICAL SELF REGULATION:** Follow the provided instructions. Use relaxation procedures and practice diaphragmatic breathing. Meditate during the day to slow the number of breaths you take per minute. Be patient—it takes time to reverse unhealthy, fatiguing habits. **DO NO ACTIVITY THAT INCREASES PAIN!**

### PSR PHYSIOLOGY

- The goal of PSR is to produce physiologic changes that reduce pain, fatigue, and misuse.
- Posturally neutral positions are those in which the muscles are most relaxed and the body can distribute oxygen, glucose, and heat with the least resistance. Symmetrical movement, performed without any discomfort improves blood flow to sore muscles and increases diffusion of synovial fluid into joints. PAT and its gentle movements also help patients recognize and intercept parafunctional (inappropriate) jaw, neck and shoulder habits that torque and fatigue muscles.
- The diaphragm is one of the most fatigue resistant and efficient muscles in the body. Diaphragmatic breathing reduces the release of stress hormones, promotes muscle relaxation, encourages sleep, and enhances the distribution of oxygen and glucose throughout the body. The optimum delivery of oxygen and glucose depends on effective diaphragmatic breathing.
- Pain patients often forget to breathe diaphragmatically. Instead they tend to breathe more rapidly, using primarily neck and chest muscles. Under such conditions, patients exhale carbon dioxide too quickly and achieve a carbon dioxide deficit (hypocapnia). Hypocapnia is to be avoided as it increases stress hormone levels, decreases the availability of oxygen to tissues, tightens muscles, and in extreme cases, alters blood chemistry. Unless you are participating in strenuous exercise, breathe using your diaphragm.

## PHYSICAL SELF REGULATION (PSR)

- I. **Proprioceptive Awareness Training (PAT)**— Practice in sequence for 2-3 minutes 6 times a day
  - A. Sit in a Relaxed, Postural Neutral Position (can be standing, semi-reclined or reclined)
    1. Sit up straight with knees apart and stomach muscles relaxed
    2. Arms should rest on thighs with hands open and fingers slightly curled
    3. Head is up straight but not held tensely by neck muscles
    4. Neck and shoulders are relaxed and even
  - B. Check Nonfunctional Tooth Contact, Clenching and Grinding
    1. Practice lips relaxed, tongue relaxed, teeth slightly apart for 30 seconds to 1 minute
      - a) Some people find it helpful to lightly lick their lips and swallow to find the relaxed position of the mandible. Others may find it helpful to say the letter “n” and note the relaxed position afterwards.
    2. Do not press your tongue between your teeth or to the roof of your mouth. That may induce fatigue.
    3. Functional tooth contact is less than 10 minutes/day if you eat for an hour/day. Teeth should only touch during chewing and swallowing or when slipping, falling or about to be hit.
  - C. Gentle Head Movement: Avoid Tilting
    1. Close your eyes. If it feels uncomfortable and produces dizziness, leave eyes open.
    2. While practicing lips relaxed, tongue relaxed, teeth slightly apart; exhale while slowly bending head forward. Avoid any movement that causes discomfort, tightness or pain.
    3. Pause with head comfortable forward for about 3 seconds.
    4. Inhale with the diaphragm slowly expanding your relaxed stomach while at the same time you slowly bring your head upright to the neutral position. Fix the neutral position in your mind.
    5. Pause for 1 second before exhaling and bending the head forward again.
    6. Repeat this 6 times per minute.
  - D. Ease Upper Back Tightness: Straighten Rounded Shoulders
    1. While in a postural relaxed, neutral position with lips relaxed, tongue relaxed, teeth slightly apart
      - a) Raise hands up as if conducting a choir, OR if this is uncomfortable
      - b) Raise arms slightly from rest position with hands open and finger slightly curled
    2. Move arms and shoulders backwards and forwards without causing discomfort
    3. Repeat arm motion slowly (once every 5 seconds). Do 6 movements, 6 times a day.
- II. **Take Brief Relaxation Breaks**
  - A. Let feet, legs, hands, arms, shoulders, head, eyelids, lips, teeth, and tongue rest in relaxed positions.
  - B. Start with 5 minutes at a time and gradually increase relaxation time by 1 minute each session up to 20 to 25 minutes.
  - C. Take at least 2 relaxation breaks each day during your initial training.
- III. **Begin Sleep In A Relaxed Position: Control Nighttime Activity**
  - A. Lay on your back in relaxed positions, practice slow breathing while keeping lips relaxed with teeth slightly apart.
  - B. Then, repeat 6 or 7 times “lips relaxed, tongue relaxed, sleep relaxed” while picturing yourself sleeping in a relaxed position.
  - C. Start off sleeping on your back. Don’t worry if you move.
- IV. **Diaphragmatic Breathing: Control Is Vital To Health**
  - A. While in a postural relaxed, neutral position, breathe slowly and regularly with your diaphragm.
  - B. As you inhale, the diaphragm gently raises the stomach and inflates the lungs.
  - C. When you exhale carbon dioxide, the stomach will fall as the diaphragm relaxes and air is released.
  - D. Before inhaling again, pause comfortable and rest for 3 to 4 seconds.
    1. The pause is not holding your breath. The pause is a moment to be still and deeply relax.
  - E. If at any time you begin to feel lightheaded or dizzy, you are exchanging too much air. Either return to your normal breathing pattern, or better, wait longer between breaths and do not breathe as deeply.
  - F. Slow diaphragmatic breathing should be very relaxing at a pace of 3-7 breaths per minute, but it may take time to relearn if you have been breathing with your chest.