Adapted for patients of OrthoBalance PT from Move Forward; American Physical Therapy Association

Physical Therapist's Guide to Temporomandibular Joint Disorder

Temporomandibular joint disorder (or "dysfunction") (TMD) is very common; more than 10 million people in the United States have it.

Jaw pain is one of the symptoms of TMD. **It's important for you to know that jaw pain also can be a symptom of heart attack. Seek medical care immediately if jaw pain is accompanied by:**

- **Chest pain**
- **Shortness of breath**
- **Dizziness**
- **Left arm pain**
- **Numbness in your left arm**
- **Nausea.**

What Is Temporomandibular Joint Disorder?

The temporomandibular joint (TMJ) guides jaw movement. Problems with the TMJ are known as temporomandibular joint disorder or dysfunction (TMD). TMD is very common; more than 10 million people in the United States have it. TMD can be caused by:

- **Bad posture habits.** One of the reasons TMD is so common is because many of us spend a great deal of time sitting at a desk, where we often hold our head too far forward as we work. But there are many other kinds of bad posture. Sitting in the car for a long commute, working at a checkout station, cradling a telephone receiver against the same shoulder for long periods of time, always carrying your child on the same hip—all can place the head in an awkward position and cause jaw problems. The "forward head position" puts a strain on the muscles, disk, and ligaments of the TMJ. The jaw is forced to "rest" in an opened position, and the chewing muscles become overused.
- **Chronic jaw clenching at night("bruxism").** Many people clench their jaws at night while they sleep, usually because of stress. This puts a strain on the TMJ because of the constant strain on the joint and surrounding muscles.
- **Problems with teeth alignment("malocclusion"**). If your teeth come together in an unusual way, greater stress is placed on your TMJ.
- **Fracture**. In a traumatic accident involving the face or head, a fracture to the lower jaw may result, and even when the fracture is fully healed, TMJ stiffness and pain may remain.
- **Surgery**. Following surgery to the face and jaw, there may be a loss in mobility and function of the TMJ.
- **Trismus ("lockjaw").** This condition—where jaw muscles spasm and the jaw cannot be fully opened—can be both a cause and a symptom of TMD. Other causes of trismus include trauma to the jaw, tetanus, and radiation therapy to the face and neck.

How Does it Feel?

TMD symptoms include:

- Jaw pain
- Jaw fatigue
- Difficulty opening your mouth to eat or talk
- Ringing in your ears
- Dizziness
- Headache
- Popping sounds in your jaw
- Neck pain
- Locking jaw

How Is It Diagnosed?

To identify the cause of the symptoms, your physical therapist will first:

- Review your medical history, and discuss any previous surgery, fractures, or other injuries to your head, neck, or jaw.
- Conduct a physical examination of your jaw and neck.

The physical therapist will evaluate your posture and how your cervical spine—your neck—moves. The therapist will examine the TMJ to find out how well it can open and whether there are any abnormalities in jaw motion. The therapist might place his or her hand in your mouth in order to examine your jaw movement.

If, after the examination, the physical therapist suspects that your pain is a result of the position ("alignment") of your teeth, the therapist will refer you to your dentist for further examination.

How Can a Physical Therapist Help?

Your physical therapist can help restore the natural movement of your jaw and decrease your pain. If the therapist determines that your jaw pain is not related to teeth alignment, the therapist will select treatments that will work best for you. Treatments used by physical therapists for TMD include:

Posture education. If your therapist finds that you sit with your head in an increased forward position, this means that you are placing greater strain on the muscles beneath your chin, causing the lower jaw to pull back and the mouth to be in an open position even when resting, and increasing stress on the TMJ. You also might be overworking the jaw muscles to force the jaw closed so your mouth isn't open all the time. Your therapist will teach you to be aware of your posture so that you can improve the resting position of your jaw, head, neck, breastbone, and shoulder blades when you're sitting and walking.

Improve jaw movement. Physical therapists use skilled hand movements called manual therapy to increase movement and relieve pain in tissues and joints. Your therapist also might use manual therapy to stretch the jaw in order to restore normal joint and muscle flexibility (how supple your muscles are) or break up scar tissues ("adhesions") that sometimes develop when there is constant injury.

Your physical therapist will teach you special "low-load" exercises—exercises that don't exert a lot of pressure on your TMJ but that can strengthen the muscles of the jaw and restore a more natural, pain-free motion.

Special pain treatments. In addition to manual therapy, if your pain is severe, your physical therapist may decide to use treatments such as electrical stimulation or ultrasound to reduce pain.

If your TMD is caused by teeth alignment problems, your physical therapist can refer you to a dentist who specializes in TMD who can correct your teeth alignment with special appliances, such as "bit guards," that create a natural resting position of the jaw to relax the TMJ, relieve pain, and improve jaw function.

Can this Injury or Condition be Prevented?

Maintaining good sitting posture is key to preventing TMJ problems. Your physical therapist will show you how to maintain good sitting posture to prevent future episodes of TMD.

General Tips:

- Avoid repetitive chewing, such as gum chewing
- Avoid smoking
- Avoid opening the jaw too wide
- Avoid eating hard or chewy foods
- Maintain good oral hygiene and tooth health
- Avoid sleeping on your stomach, which forces the neck to rotate to one direction in order to maintain an open airway, increasing stress on the TMJ

At work:

- Your work should be directly in front of you and not off to the side where you are forced to look in one direction for long periods of time.
- Are you on the phone for long periods of time? Use a headset that allows the neck and jaw to remain in a restful("neutral") position.

Real Life Experiences

You're attending your daughter's state championship volleyball match. Her team is ahead by one point, she sets up for the winning point, and she scores! Her team wins the state title, but after the celebration, you realize that your jaw is sore—and over the next week, it keeps getting worse.

You make an appointment with your physical therapist, who examines you and determines that your pain is related to postural habits and not to the alignment of your teeth. All season long, you've been cheering and yelling hard when her team was winning and nervously grinding your teeth when her team was trailing. You've also been sitting on bleachers without back support. Your physical therapist will provide a thorough examination of your neck and jaw to determine the true cause of your pain complaints and select treatments that will relieve your pain and help you use good posture so that you don't have more episodes of jaw pain.

This story was based on a real-life case. Your case may be different. Your physical therapist will tailor a treatment program to your specific case.

What Kind of Physical Therapist Do I Need?

All physical therapists are prepared through education and experience to treat a variety of conditions or injuries. You may want to consider:

- A physical therapist who is experienced in treating people with musculoskeletal problems. Some physical therapists have a practice with a craniofacial focus, meaning that they focus on movement disorders related to the skull and facial structures.
- A physical therapist who is a board-certified clinical specialist or who completed a residency or fellowship in orthopaedics physical therapy. This therapist has advanced knowledge, experience, and skills that may apply to your condition.

You can find physical therapists who have these and other credentials by using Find a PT, the online tool built by the American Physical Therapy Association [www.APTA.org] to help you search for physical therapists with specific clinical expertise in your geographic area.

General tips when you're looking for a physical therapist (or any other health care provider):

- Get recommendations from family and friends or from other health care providers.
- When you contact a physical therapy clinic for an appointment, ask about the physical therapists' experience in helping people with TMD.
- During your first visit with the physical therapist, be prepared to describe your symptoms in as much detail as possible, and say what makes your symptoms worse.

Further Reading

The American Physical Therapy Association (APTA) believes that consumers should have access to information that could help them make health care decisions and also prepare them for their visit with their health care provider.

APTA has determined that the following articles provide the **best scientific evidence for how to treat TMD**. The articles report recent research and give an overview of the standards of practice for treatment of TMD both in the United States and internationally. The article titles are linked either to a PubMed abstract of the article or to free full text, so that you can read it or print out a copy to bring with you to your health care provider.

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Komiyama O, Kawara M, Arai M, et al. Posture correction as part of behavioural therapy in treatment of myofascial pain with limited opening. *J Oral Rehabil*. 1999;26:428–435. Article Summary.

Michelotti A, de Wijer A, Steenks M, Farella M. Home exercise regimes for the management of non-specific temporomandibular disorders. *J Oral Rehabil*. 2005;32:779–785. Article Summary.

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