

UNIVERSITY STUDENT HEALTH SERVICES • Fact Sheet

Temporomandibular Joint (TMJ) Disorders**WHAT IS THE TMJ?**

The TMJ, or temporomandibular joint, is located in front of each ear where the lower jaw (mandible) meets the skull (temporal bone). The TMJ allows for movement of the lower jaw and is the most constantly used joint in the body. For smooth and painless jaw movement, the TMJ must first rotate (turn like a doorknob) to allow the mouth to open. The second motion is to translate (slide forward), which allows the mouth to open wider. A small disc made of cartilage separates and cushions the bones when the jaw opens and closes.

WHAT CAUSES TMJ DISORDERS?

With TMJ disorders, the translation or sliding phase of jaw movement often begins too early. This leads to poor tracking and deviation of the jaw when it opens and closes. The jaw may also be out of alignment when it is closed and resting.

TMJ is not simply a biomechanical disorder but rather a complex disease involving the interplay of genetics, psychological factors, and the environment:

- Myofascial pain is the most common type of TMJ disorder and affects twice as many women as men. It is often caused by overuse of the jaw muscles, such as from teeth grinding (bruxism), jaw clenching (often stress-related), gum chewing, etc.
- Structural pain may be due to a dislocated jaw bone/disc or damage to the disc. Facial trauma from a car crash or a punch to the jaw can lead to structural problems.
- Arthritis may also cause pain in the TMJ. It may be due to teeth grinding, trauma to the jaw, or normal aging. Rheumatoid arthritis or severe trauma may lead to fusing of the joints, thus preventing jaw movement altogether.
- Poor head and neck posture may contribute to pain in the TMJ because of muscular attachments to the jaw, head, and neck.
- Psychological factors (anxiety, depression, PTSD, history of trauma) may be associated with the development of chronic TMJ and an increased risk of pain.

WHAT ARE THE SYMPTOMS?

Common symptoms of TMJ dysfunction include:

- Pain in the face, jaw, and/or ear, which may radiate to the neck or shoulders. Often described as dull or achy. May be intermittent and vary in severity.
- Pain with opening or closing the mouth.
- Difficulty fully opening the mouth.
- Difficulty chewing.
- Clicking, popping, or grating sounds with jaw movement.
- Headache.
- May be described as a "sinus pain" around one eye and/or cheekbone.
- Ringing in the ear.
- Locking of the jaw when open.
- Uneven or uncomfortable bite.
- Swelling on affected side of the face.

Pain is usually worse with jaw movement. Some people experience an ache in the jaw and surrounding muscles when awakening, usually due to teeth grinding or jaw clenching.

Clicking of the jaw is not considered a problem unless it is associated with pain and/or limited jaw motion.

HOW IS IT DIAGNOSED?

TMJ disorders are usually diagnosed by a history and physical exam. Routine x-rays are generally not advised as they do not provide additional information. In rare cases, a specialist may order a CT scan for detailed images of the jaw bone and/or an MRI to look at the joint's disc.

HOW IS IT TREATED?

❖ Self-Care Measures

Most cases are temporary and will resolve in 2-3 weeks with jaw rest and the following:

- Over-the-counter pain medications. Anti-inflammatory pain medications, such as ibuprofen (Advil or Motrin) or naproxen (Aleve), are preferred and must be taken with food to avoid an upset stomach. Talk to your medical provider before taking these medications if you have a history of stomach ulcers or kidney disease. Acetaminophen (Tylenol) is an alternative.
- Warm compresses or ice to the jaw.
- Gentle massage to the jaw.
- Adequate rest. Address sleep hygiene with your medical provider if you have insomnia.
- Stress reduction techniques, such as breathing exercises, meditation, progressive muscle relaxation, gentle yoga, etc.

It is also important to:

- Avoid biting on objects, such as your fingernails, pens, etc.
- Avoid gum, hard candy, and chewy foods. A soft diet is preferred.
- Avoid biting on your lower lip, front teeth, and cheeks.
- Keep your upper and lower teeth apart when your mouth is closed.
- Maintain good posture of the head, neck, and back.

❖ TMJ Exercises

A variety of rehab exercises exist. Some help to stretch and relax jaw muscles. Others are designed to normalize the mechanics of jaw opening. For an effective step-by-step home exercise program, visit www.restoringyourtemple.com, click on the Free Resources tab, and choose TMJ Exercises.

❖ Medical Treatments

If your symptoms do not improve over 2-3 weeks with the above measures, you may need further evaluation and treatment by a specialist.

- Short-term use of muscle relaxants may be prescribed in certain cases.
- You may be referred to your dentist for a night guard or bite plate. This is a plastic device that fits over your upper and lower teeth to decrease grinding and clenching. The guard should not change your basic “bite” and should not cause pain.
- Counseling (biofeedback, CBT) is used as an adjunct therapy when a patient has chronic TMJ and anxiety, depression, PTSD, etc. University Counseling Services (counseling.vcu.edu) and TimelyCare (counseling.vcu.edu/students/timelycare) offer free services to VCU students. Talk with your medical provider and visit the websites listed for more information.
- In severe cases, a specialist may inject a corticosteroid medication into the joint space to decrease inflammation and provide pain relief.
- Injecting Botox into the jaw muscles used for chewing may help with myofascial pain.
- In extremely rare cases, surgery may be considered. It is very important to obtain a qualified second opinion prior to undergoing such an extreme measure.

RECOMMENDED WEBSITES: www.emedicinehealth.com, www.mayoclinic.org, www.nih.gov