

Temporomandibular Disorder (TMD)

What are the temporomandibular joints (TMJ)?

The temporomandibular joints (TMJ) are the 2 joints that connect your lower jaw to your skull. More specifically, they are the joints that slide and rotate in front of each ear, and consist of the mandible (the lower jaw) and the temporal bone (the side and base of the skull). The TMJs are among the most complex joints in the body. These joints, along with several muscles, allow the mandible to move up and down, side to side, and forward and back. When the mandible and the joints are properly aligned, smooth muscle actions, such as chewing, talking, yawning, and swallowing, can take place. When these structures (muscles, ligaments, disk, jaw bone, temporal bone) are not aligned, nor synchronized in movement, several problems may occur.

What is temporomandibular disorder (TMD)?

Temporomandibular disorders (TMD) are disorders of the jaw muscles, temporomandibular joints, and the nerves associated with chronic facial pain. Any problem that prevents the complex system of muscles, bones, and joints from working together in harmony may result in temporomandibular disorder.

The National Institute of Dental and Craniofacial Research classifies TMD by the following:

Myofascial pain. This is the most common form of TMD. It results in discomfort or pain in the fascia (connective tissue covering the muscles) and muscles that control jaw, neck and shoulder function.

Internal derangement of the joint. This means a dislocated jaw or displaced disk, (cushion of cartilage between the head of the jaw bone and the skull), or injury to the condyle (the rounded end of the jaw bone that articulates with the temporal skull bone).

Degenerative joint disease. This includes osteoarthritis or rheumatoid arthritis in the jaw joint.

You can have one or more of these conditions at the same time.

What causes TMD?

In many cases, the actual cause of this disorder may not be clear. Sometimes the main cause is excessive strain on the jaw joints and the muscle group that controls chewing, swallowing, and speech. This strain may be a result of bruxism. This is the habitual, involuntary clenching or grinding of the teeth. But trauma to the jaw, the head, or the neck may cause TMD. Arthritis and displacement of the jaw joint disks can also cause TMD pain. In other cases, another painful medical condition such as fibromyalgia or irritable bowel syndrome may overlap with or worsen the pain of TMD. A recent study by the National Institute of Dental and Craniofacial Research identified clinical, psychological, sensory, genetic, and nervous system factors that may put a person at higher risk of developing chronic TMD.

What are the signs and symptoms of TMD?

The following are the most common signs and symptoms of TMD:

- Jaw discomfort or soreness (often most prevalent in the morning or late afternoon)
- Headaches
- Pain spreading behind the eyes, in the face, shoulder, neck, and/or back
- Earaches or ringing in the ears (not caused by an infection of the inner ear canal)
- Clicking or popping of the jaw
- Locking of the jaw
- Limited mouth motions
- Clenching or grinding of the teeth
- Dizziness
- Sensitivity of the teeth without the presence of an oral health disease
- Numbness or tingling sensation in the fingers
- A change in the way the upper and lower teeth fit together

The symptoms of TMD may look like other conditions or medical problems. See a dentist or your doctor for a diagnosis.

Treatment may include:

Resting the temporomandibular joint (TMJ)

Avoid clenching (lips together, teeth apart)

Avoid chewing hard foods and gum

Medicine or pain relievers

Ibuprofen (600 mg, every 8 hours for 7-10 days)

Stick to it, even if it is not hurting

Moist heat

15-20 minutes, 2-3x a day

Night/occlusal guard

Physician Evaluation of airway