Temporomandibular Joint Problems



Signs and Symptoms

- Tenderness of your jaw muscles
- Dull aching pain in front of your ear
- A clicking sound or grating sensation on opening your mouth or chewing
- Locking of the joint, making it difficult to open or close your mouth

Your temporomandibular joints (TMJ) are the hinged joints that connect both sides of your lower jaw (mandible) to your skull. As with other joints, the bony surfaces are covered with cartilage and are separated by a small disc that prevents the bones from rubbing against one another. Muscles that enable you to open and close your mouth also serve to stabilize these joints, which are located about one-half inch in front of each ear canal.

As with other joints, the TMJ is susceptible to various disorders such as osteoarthritis, rheumatoid arthritis, and other forms of inflammation. In rare instances, tumors may arise in this area.

When you open your mouth, the mandible moves downward and forward. For normal jaw function, your left and right TMJs must work synchrony. If the movement of both joints is not coordinated, the disc that separates the lower jaw from the skull can slip out of position, resulting in malfunction of the jaw. Should your mouth be forced open rapidly or too far, dislocation also can result.

Overuse of the joint by grinding your teeth (bruxism) or trauma to the side of your face also can cause TMJ pain. Extreme jaw clenching can lead to pain in your TMJ as well as over the temples. This occurs because the muscle that control jaw movement are also attached to a nearby bone of your skull.

In some people, headaches or pain in the side of the face or jaw is related to the abnormalities of the temporomandibular joint.

Diagnosis

Tenderness over the joint (with or without movement), a clicking or grating sensation when you open or close your mouth, and locking of the joints (making it difficult to open or close your mouth) when accompanied by pain may suggest a TMJ problem. See your dentist or physician.

He or she may order X-rays or an MRI scan in many cases they are normal. Your dentist or physician will also examine your bite to see if there are abnormalities in the alignment of your teeth and in the movement of your jaw. Such conditions as a high filling, a tipped tooth, teeth displaced due to earlier loss of other teeth, or certain inherited characteristics may produce such misalignments.

Bruxism can exist without your being aware of it. Often, the grinding occurs during sleep. Your dentist can determine the presence of a tooth-grinding habit by noting excessive wear on the biting surfaces of your teeth.

Another result of excessive grinding and jaw clenching is a dull discomfort in your jaw and head areas on awakening in the morning. This is called a musculoskeletal headache or tension headache.

Treatment

For most people, pain in the area of the TMJ is not serious. Discomfort may be temporary or chronic in nature. It often goes away with little or no treatment.

Most cases of TMJ disorders are the result of inflammation within the joint. In these instances, physical therapy and medications (such as aspirin or other nonsteroidal anti-inflammatory drugs) used for treating similar symptoms in larger joints work effectively. Occasionally, a corticosteroid drug can be injected into the joint to reduce severe pain and inflammation.

If abnormalities in the alignment of your teeth are present, your dentist may correct this by balancing biting surfaces, replacing missing dentition, or replacing missing dentition, or replacing defective fillings or crowns.

If your TMJ is misaligned, your dentist may recommend a plastic bite plate (splint) to promote better alignment of jaw bones. This corrective device is worn over your teeth and helps to reestablish proper alignment. The device may need to be adjusted periodically by your dentist.

Splints typically provide relief from jaw locking, pain, and noise. In addition, your dentist may recommend modifications in your chewing habits. For example, he or she may discourage chewing of gum or of firm foods such as caramels, nontender meats, raw carrots, and celery as well as excessive mouth opening during yawning.

If symptoms continue and the use of splint is unsuccessful, a specialist in oral and maxillofacial surgery may need to repair or to remove the disc that separates the adjacent bony surfaces of the TMJ, or portions of the bones themselves, or both.

Bruxism can be a difficult habit to break, especially if it occurs while you sleep. However, your dentist may provide either a soft or a firm appliance that you can insert over your teeth at bedtime to offset the effects of the clenching or grinding and to protect your teeth from excessive wear. In addition to these "nightguard appliances," biofeedback/relaxation therapy, physical therapy, and other behavior modification efforts can be of great help.

When symptoms of TMJ disorders occur without evidence of a physical abnormality, psychological factors could be responsible for the pain. For example, chronic tensions and anxiety might cause you to maintain a clenched jaw, leading to TMJ disorder. In these situations, biofeedback/relaxation therapy may provide relief.

Litin, S. C., & Nanda, S. (2018). *Mayo Clinic family health book*. Rochester, MN: Mayo Clinic.