

The Temporomandibular Joint (TMJ)

The temporomandibular joint (TMJ) is a small joint located in front of the ear where the skull and lower jaw meet. It permits the lower jaw (mandible) to move and function.

TMJ disorders are not uncommon and have a variety of symptoms. Patients may complain of earaches, headaches and limited ability to open their mouth. They may also complain of clicking or grating sounds in the joint and feel pain when opening and closing their mouth. What must be determined, of course, is the cause.

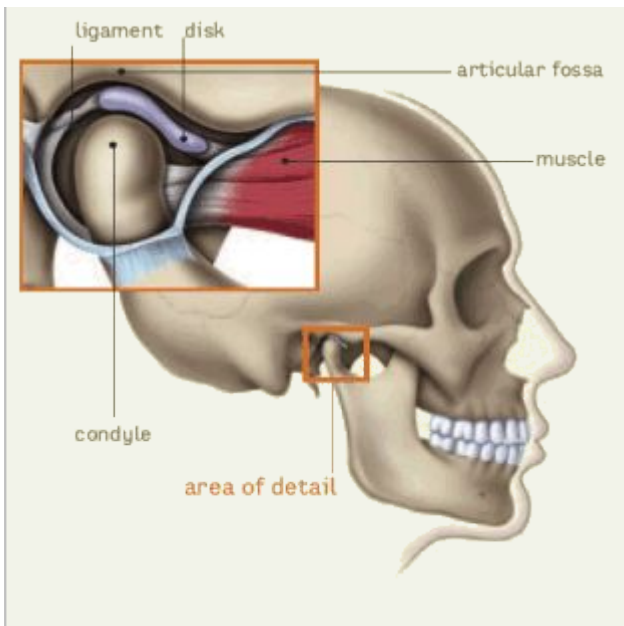
What Causes TMJ Disorders?

Determining the cause of a TMJ problem is important, because it is the cause that guides the treatment.

Arthritis is one cause of TMJ symptoms. It can result from an injury or from grinding the teeth at night. Another common cause involves displacement or dislocation of the disk that is located between the jawbone and the socket. A displaced disk may produce clicking or popping sounds, limit jaw movement and cause pain when opening and closing the mouth.

The disk can also develop a hole or perforation, which can produce a grating sound with joint movement. There are also conditions such as trauma or rheumatoid arthritis that can cause the parts of the TMJ to fuse, preventing jaw movement altogether.

Anatomy of the TMJ

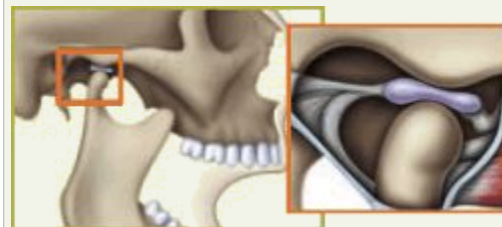


The TMJ is a hinge and gliding joint and is the most constantly used joint in the body. The round upper end of the lower jaw, or the movable portion of the joint, is called the condyle; the socket is called the articular fossa. Between the condyle and the fossa is a disk made of cartilage that acts as a cushion to absorb stress and allows the condyle to move easily when the mouth opens and closes.

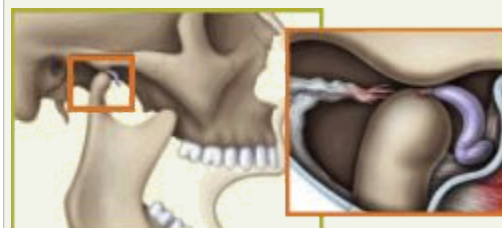
Function of the TMJ



Temporomandibular joint — Normal closed position. Jawbone is separated from skull by a soft disk that acts as a cushion when you chew, speak or swallow.



Temporomandibular joint — Normal open position. Disk stays in place when jaw is in use.



Temporomandibular joint — Abnormal. Disk is pulled forward when jaw is in use, causing the bone structures to grind together.

The Joint, the Muscles or Both are the Problem

Stress may trigger pain in the jaw muscles that is very similar to that caused by TMJ problems. Affected patients frequently clench or grind their teeth at night causing painful spasms in the muscles and difficulty in moving the jaw. Patients may also experience a combination of muscle and joint problems. That is why diagnosing TMJ disorders can be complex and may require different diagnostic procedures.

The Role of the Oral and Maxillofacial Surgeon

When symptoms of TMJ trouble appear, an oral and maxillofacial surgeon should be consulted. A specialist in the areas of the mouth, teeth and jaws, the oral and maxillofacial surgeon is in a good position to correctly diagnose the problem.

Special imaging studies of the joints may be ordered and appropriate referral to other dental or medical specialists or a physical therapist may be made.

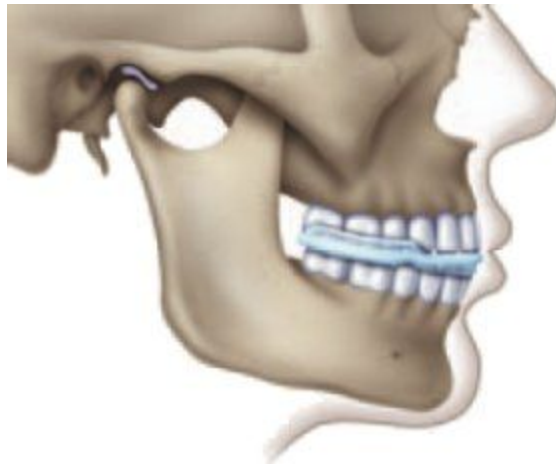
Range of Possible Treatment

TMJ treatment may range from conservative dental and medical care to complex surgery. Depending on the diagnosis, treatment may include short-term non-steroidal anti-inflammatory drugs for pain and muscle relaxation, bite plate or splint therapy, and even stress management counseling.

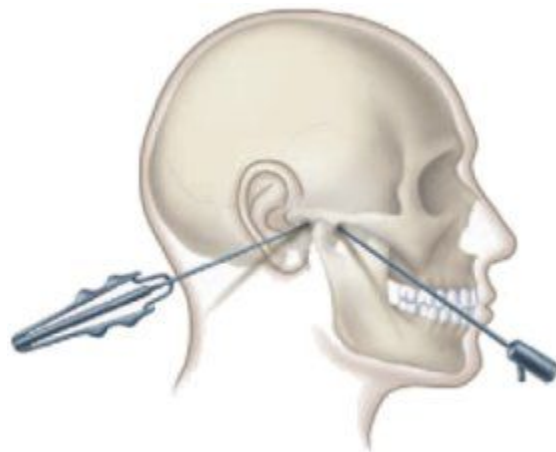
Generally, if non-surgical treatment is unsuccessful or if there is clear joint damage, surgery may be indicated. Surgery can involve either arthroscopy (the method identical to the orthopaedic procedures used to inspect and treat larger joints such as the knee) or repair of damaged tissue by a direct surgical approach.

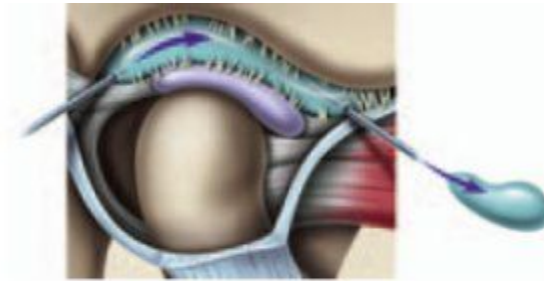
Once TMJ disorders are correctly diagnosed, appropriate treatment can be provided.

Treatment Options for TMJ Disorders

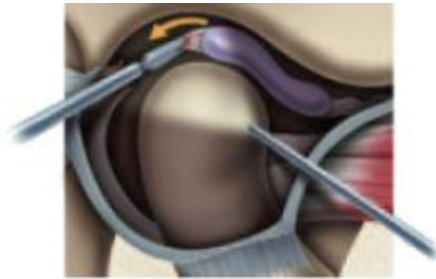


Bite splints or guards are commonly used to treat TMJ disorders.





(a)



(b)



(c)

Some of the TMJ surgical options your OMS may consider include (a) Arthrocentesis — flushing fluid from the joint and gently stretching it. (b) Arthroscopy — using a miniature telescoping instrument to diagnose and repair the joint. (c) Arthrotomy — open joint surgery for more complex cases.

ORAL AND MAXILLOFACIAL SURGEONS: AN IMPORTANT LINK

Oral and maxillofacial surgery is the specialty of dentistry that includes the diagnosis, surgical and adjunctive treatment of diseases, injuries and defects involving both the functional and aesthetic aspects of the hard and soft tissues of the oral and maxillofacial region.

An oral and maxillofacial surgeon is a graduate of an accredited dental school who has completed an additional four or more years of training in an accredited, hospital-based oral and maxillofacial surgery residency program.

Oral and maxillofacial surgeons are an important link in the referral network for primary care providers. Through appropriate referrals, patients can be provided with expedient and cost-effective health care for conditions relating to the specialty of oral and maxillofacial surgery.