WHAT IS THE TEMPOROMANDIBULAR JOINT (TMJ)?

The temporomandibular joint (TMJ) is the area directly in front of the ear on either side of the head where the upper jaw (maxilla) and lower jaw (mandible) meet. Within the TMJ are moving parts that allow the upper jaw to close on the lower jaw. This joint is a typical sliding “ball and socket” which has a disc sandwiched between it. The TMJ is used many hundreds of times a day in moving the jaw, biting and chewing, talking and yawning. It is one of the most frequently used of all joints in the body.

What is TMJ Syndrome?

Temporomandibular Joint (TMJ) Dysfunction Syndrome, is an umbrella term covering short term and long term inflammation of the joint that joins the lower jaw to the head. The TMJ allows you to talk, yawn and chew. This condition can be quite painful and can limit the function of the joint.

What is TMJ Syndrome?

There are various signs and symptoms of TMJ Dysfunction Syndrome, which affect muscles, bones, ligaments and teeth among other things. Some of the symptoms include:

- Biting or chewing difficulty or discomfort
- Clicking, popping, or grating sound when opening or closing the mouth or moving jaw from side to side
- Dull, aching pain in the face
- Earache (mainly in the morning)
- Headache or Migraine (mainly in the morning)
- Hearing Loss
- Jaw pain or tenderness
- Reduced ability to open or close the mouth
- Ringing in the ear
- Unexplained head and neck pain
- Dizziness
- Continuous fractured teeth and filling

CAUSES OF TMJ DISORDERS

TMJ disorders can be caused by many different types of problems — including arthritis, jaw injury, or muscle fatigue from clenching or grinding your teeth. Most persons who clench and grind their teeth are unaware because it is involuntary and it occurs at night. This is referred to as Nocturnal Grinding/Bruxism.

Nocturnal Bruxism is a continual hammering on the TMJ and can change the way in which the teeth are aligned. The muscles, ligaments and tendons surrounding the joint can become inflamed and painful. Grinding and clenching causes Microtrauma to the TMJ. Macrotrauma, such as a punch to the jaw or impact in an accident, can break the jawbone, cause dislocation of the TMJ, or damage the cartilage disc of the joint. Pain in the TMJ can be brought on by dental work whereby the joint is stretched open for extended periods of time. Massage and heat application after the dentist finishes can be helpful.
TREATMENT OF TMJ DISORDERS

Treatment is comprised mainly of simple procedures performed at home daily in addition to prescribed medication and appliance therapy. The mainstay of treatment for acute TMJ pain is heat & ice, soft diet and anti-inflammatory medications.

Jaw rest: It can be beneficial to keep the teeth apart as much as possible. It is also important to recognize when tooth grinding is occurring and devise methods to cease this activity. Patients are advised to avoid chewing gum or eating hard, chewy, or crunchy foods. Foods that require opening the mouth widely are also not recommended.

Heat and ice therapy: These assist in reducing muscle tension and spasm. However, immediately after an injury to the TMJ, treatment with cold applications is best.

Medications: Anti-inflammatory medications such as Aspirin, Ibuprofen (e.g. Advil), Naproxen (e.g. Aleve), or steroids can help control inflammation. Muscle relaxants, such as diazepam (Valium), aid in decreasing muscle spasms.

Occlusal therapy: A custom-made acrylic appliance (TMJ splint) which fits over the teeth is commonly prescribed for night and acts to balance the bite and reduce or eliminate teeth grinding or clenching (bruxism)

Physical therapy: Passively opening and closing the jaw, massage, and electrical stimulation help to decrease pain and increase the range of motion and strength of the joint.

Stress management: Stress support groups, psychological counseling, and medication can also assist in reducing muscle tension.

Correction of bite abnormalities: Corrective dental therapy, such as orthodontics, may be required to correct an abnormal bite. Dental restorations assist in creating a more stable bite. Adjustments of bridges or crowns act to ensure proper alignment of the teeth.

Surgery: Surgery is indicated in those situations in which medical therapy has failed. It is done as a last resort. TMJ arthroscopy, ligament tightening, joint restructuring, and joint replacement are considered in the most severe cases of joint damage or deterioration.

Evaluation of TMJ Problems

A complete dental and medical evaluation is often necessary and recommended to evaluate patients with suspected TMJ disorders. During the diagnostic process, one or more of the following conditions/tests is evaluated. Damaged jaw joints are suspected when there is a popping, clicking or grating sound associated with jaw movements. Chewing may become painful and the jaw may lock or not open widely. The teeth may be worn smooth as well as a loss of normal bumps and ridges on the tooth surface. There may also be a grinding sound (crepitus). Due to the proximity of the ear to the TMJ, ear symptoms are very common and pain from the syndrome can be confused with an ear ache. Treating TMJ symptoms, may relieve what is perceived to be an ear ache as well as facial pain.

Dental Examination for TMJ Problems

During the dental examination to check for TMJ problems, the joint is palpated during opening, closing and moving from side to side. Muscles inside and outside of the mouth are also palpated. A stethoscope may be used to listen to joint sounds.

References