

What is TMJ?

"TMJ" stands for TemporoMandibular Joint.

It is also used to describe a number of diseases and disorders associated with the joint. Over the years pain and dysfunction of the TMJ has been identified by many names.

In the sixties it became the TMJ pain and dysfunction syndrome (TMPD). The seventies added myofascial pain dysfunction syndrome (MPD) to the mix. In the eighties, the dental community introduced the phrase temporomandibular disorders (TMD).



We will continue to refer to this condition as TMJ as the public and mass media most readily recognize and understand this.

What are TMJ Diseases/Disorders?

Temporomandibular joint diseases and disorders are a complex and poorly understood set of conditions that can cause pain in the area of the jaw joint and associated muscles and/or problems using the jaw. Both or just one of the temporomandibular joints may be affected. TMJ diseases and disorders can affect a person's ability to speak, eat, chew, swallow, and even breathe.

Symptoms:

Pain is the most common symptom. TMJ pain is often described as a dull aching pain in the jaw joint and nearby areas, including the ear, which comes and goes. Some people, however, report no pain, but still have problems using their jaws. Other symptoms can include:

Being unable to open the mouth comfortably

Clicking, popping or grating sounds in the jaw joint Locking of the jaw when attempting to open the mouth Headaches

A bite that feels uncomfortable or "off"

Neck, shoulder and back pain

Swelling on the side of the face

Additional symptoms may include: ringing in the ears, ear pain, decreased hearing, dizziness and vision problems.

Anatomy of the TMJ:

You have two TMJs, one in front of each ear, connecting the lower jaw bone (the mandible) to the skull. The joints allow movement up and down, side to side, and forward and back—all the mobility necessary for biting, chewing and swallowing food, for speaking and for making facial expressions.

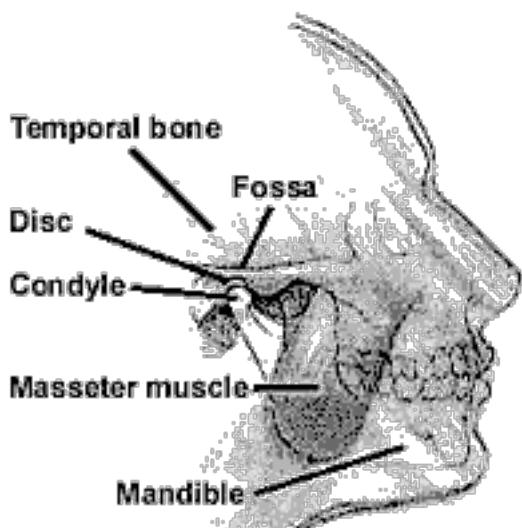
The TMJ is formed by the temporal and mandibular bones. Attached to the mandibular condyle is a fibrocartilage meniscus or articular disk, which allows the mandible to move smoothly. If this disc becomes damaged or displaced surgery may be considered, however replacement of the jaw joint(s) or disc(s) with TMJ implants should be considered only as a

treatment of last resort. TMJ implants are intended to improve jaw function. Pain alone is not a reason to undergo a TMJ replacement procedure; often, after surgery, the pain level stays the same or even increases. TMJ implants may also cause permanent damage. Some of these devices may fail to function properly or may break.

Irreversible Treatments

According to the National Institute of Dental and Craniofacial Research, of the National Institutes of Health, irreversible treatments have not been proven to work and may make the problem worse.

Examples of irreversible treatments are:



Manual adjustment of the bite by grinding the teeth.

Mandibular repositioning splints which move the jaw, ligaments and muscles " into a new position.

Extensive dental work such as crown and bridge work to balance the bite. Orthodontics
Surgical procedures

So what can WE do?

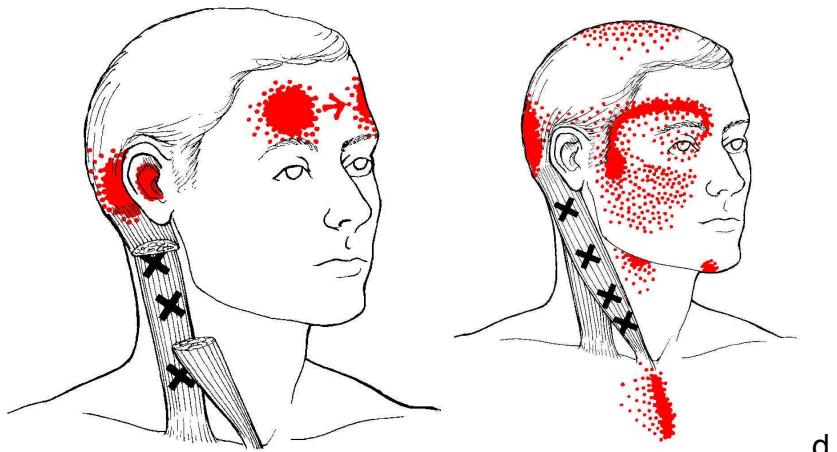
Disorders of the muscles of the temporomandibular joint are the most common complaints by TMJ patients.

The two major observations concerning the muscles are pain and dysfunction. Simple cases of this type of TMJ are caused by overusage of the muscles.

Common causes include chewing gum continuously, biting habits (fingernails and pencils), grinding habits and clenching habits. Pain in the joint will usually be coming from the soft tissues surrounding it. Even if there is a physical problem with the disc or the joint itself a significant reduction in pain and improved function can be achieved with trigger point work.

Trigger points in the trapezius, sub occipitals and SCM are often the main cause of pain in the TMJ. These can then set up satellite or secondary trigger points in the masticatory

muscles (temporalis, masseter, lateral pterygoid, and medial pterygoid). For example trigger points in the SCM can maintain secondary trigger points in the jaw muscles that are the cause of jaw pain and misalignment of the TMJ itself. When you treat the primary trigger points the secondary are often resolved also .

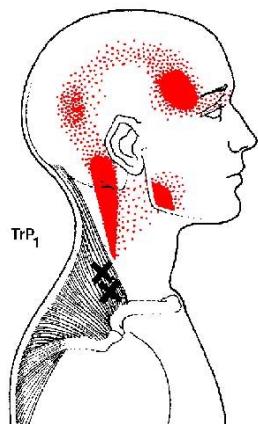


SCM trigger points and referre
pain pattern.

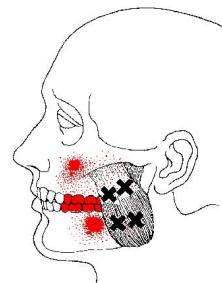
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Trigger points in the upper fibres of trapezius cause pain in the temple, the back corner of the jaw, and down the side of the neck behind the ear. They can also be responsible for secondary trigger points in the muscles of mastication making them an indirect cause of jaw pain and even toothache.

Upper Trapezius trigger point and referred pain pattern



Temporalis trigger points contribute to headaches, pain and sensitivity in the upper teeth, pain on chewing or biting down and the feeling that your teeth are not meeting properly. Trigger points in the temporalis can be secondary to the SCM and masseter.



Masseter trigger points and referred pain pattern

The masticatory muscles are responsible for movement and stabilization of the TMJ. It is quite difficult to treat the medial and lateral pterygoid muscles effectively, while the temporalis and masseter are easily accessible.

Other causes of TMJ diseases and disorders.

Not all causes are known. Some possible causes or contributing factors are injuries to the jaw area, various forms of Arthritis, dental procedures, genetics, hormones, low-level infections, auto-immune diseases, stretching of the jaw as occurs with inserting a breathing tube before surgery.

Bruxism/Stress...the chicken and the egg?

Some dentists will tell their patients that they have TMJ because they grind their teeth, and that they grind their teeth because they are stressed.

However, approximately one-fourth of the population --with or without TMJ-- grinds their teeth at night. Not all people with TMJ grind their teeth, and not all habitual tooth-grinders have TMJ. Science has yet to prove whether stress is the cause of bruxism and the resulting pain, or that stress is the result of dealing with the chronic pain condition.

Another theory of bruxism is that patients with a malocclusion (incorrect bite) grind their teeth in an attempt "to find their bite."

Any dysfunction of the muscles may cause the teeth to occlude (bite) with each other incorrectly, if teeth are traumatized by this they may become sensitive demonstrating one of the many interplays between muscle, joint and tooth. Trigger point work, releasing the muscles that are in spasm can result in the bite correcting itself.