Temporomandibular joint disorders

Your temporomandibular joint (also referred to as TMJ) is the joint just in front of each ear, where your jaw bone connects to your skull. Problems with the TMJ and the muscles that control jaw movement are known as temporomandibular disorders (TMD) or TMJ disorders.

What are the symptoms of TMJ disorders?

Dull, aching pain, which varies in strength from mild to severe, is the most common symptom associated with TMJ disorders. The pain is usually felt in the jaw, but can also be felt in the surrounding areas, including the face, ear and teeth. The pain may also radiate to the neck or shoulders, and is usually made worse by chewing and moving your jaw.

Other signs and symptoms associated with TMJ disorders include:

- difficulty eating (especially chewy or hard foods);
- jaw tenderness;
- a grating sensation when chewing;
- an uncomfortable or uneven bite;
- jaw locking (an inability to open or close the mouth completely); and
- jaw clicking, or popping, when you open and close your mouth and chew (however, on their own, jaw clicking and popping are not considered to indicate a TMJ disorder that needs treatment, unless there is also pain or limited jaw movement).

TMJ disorders can be temporary or chronic (ongoing), but only a small proportion of people develop significant, long-term problems. Women tend to be affected by TMJ disorders more often than men.

What causes TMJ disorders?

There is debate about the cause of TMJ disorders. Many believe they are caused by a combination of problems with the joint and stress on its surrounding structures. Some of the causes of joint problems include arthritis, injury, and dislocation of the joint, which can be due to an improperly aligned bite or joint hypermobility (looseness of the jaw).

Jaw clenching and teeth grinding (also known as bruxism) can put significant stress on the jaw muscles. Tooth grinding often happens as we sleep, caused by chronic stress and anxiety, sleep disorders, an abnormal bite or missing teeth. It can result in muscle pain and tightness as well as damage to the teeth. However, the exact relationship between tooth grinding and TMJ disorder is uncertain as many people who grind their teeth do not develop TMJ disorder, and many of those with TMJ disorder do not grind their teeth.

Poor posture (e.g. holding the head forward while looking at your computer screen) can also strain the muscles of the jaw, face and neck.

How are TMJ disorders diagnosed?

Your doctor will ask about your symptoms and examine your jaw and the surrounding muscles. They may also check for problems in other parts of your body, such as arthritis, and for other causes of facial pain such as sinus and ear infection, headache and nerve-related pain (neuralgia). You may also need to see a dentist, so that your teeth and the way you bite can be assessed properly. Sometimes, an X-ray, CT or MRI scan is needed to take a closer look at the area.

Is there anything I can do to treat TMJ pain?

There are many different treatments available for the symptoms of TMJ disorders. Depending on the cause of your problem, your doctor or dentist will be able to advise you of the treatments that are suitable for you.

In many cases, TMJ pain and discomfort can be improved by simple things you can do yourself. These include avoiding hard and chewy foods and chewing gum, avoiding opening your mouth wide during chewing, speaking and yawning, and maintaining good posture. Take particular care with your posture if you spend a lot of time sitting at your desk in front of a computer, and take frequent breaks to relieve stressed muscles.

Pain relievers, such as non-steroidal anti-inflammatory drugs (NSAIDs), and muscle relaxants, and hot and cold packs can help relieve the pain in the short term. Gentle muscle stretching and relaxing exercises can also be helpful.

Making some lifestyle adjustments can also help treat TMJ disorders.Managing stress and anxiety is important if this is causing or contributing to the pain. There are various options that may be used to relieve stress, including yoga, meditation, progressive muscle relaxation and deep breathing. Even regular exercise, such as swimming or walking, can reduce muscular stress and improve TMJ pain.

Two-thirds of people who have had a TMJ disorder for a short time (2-3 months) find that it improves with these simple measures.

What other treatments are available?

A number of other treatments for TMJ disorders have been helpful for some people, but there is no clear evidence at present about their effectiveness. This is because the appropriate studies comparing treatments have not yet been done.

If you have been grinding your teeth at night, it may help to wear a special mouthguard (also known as a mouth splint or night guard appliance) while you sleep. By helping prevent jaw clenching and teeth grinding, a mouthguard can ease the tension in your jaw muscles. Splints can also be worn during the day to relax your jaw muscles and prevent damage to your teeth from grinding. Day splints are usually only used on a short-term basis.
Some people have found that physiotherapy reduces the pain associated with TMJ disorders. Therapies used include:

- massage;
- ultrasound treatment;
- transcutaneous electrical nerve stimulation (TENS), which uses mild electrical currents from electrodes that are taped to the skin to treat pain; and
- electromyographic feedback, which is a treatment used to help you to learn to relax your jaw muscles.

You may need to see a dentist and have any problems with your bite or teeth corrected, including replacing missing teeth or needed fillings and crowns. Sometimes, more invasive treatment methods may be suggested for people who have severe or ongoing pain or discomfort. Corticosteroid injections, which can reduce inflammation in the joint or muscles, may be helpful.

Scientists are researching other treatments. However, until there is evidence of their safety and effectiveness, the US National Institutes of Health suggests that you should avoid treatments that cause permanent changes to the jaw and bite, such as crown and bridge work and orthodontics. The Institutes also suggests avoiding, where possible, surgery to the jaw.

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References


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