

Temporomandibular Disorders (TMD)

It is estimated that more than 10 million Americans experience TMD symptoms at one time or another. A majority of these people are women between the ages of 20 and 40 years old. TMD is not just one specific problem. It is a group of conditions that affect the jaw joint, also known as the temporomandibular joint or TMJ, and/or the muscles that control chewing and moving the jaw.

The Temporomandibular Joint (TMJ)

- Similar to a ball and socket, when you open your mouth, the ball, or condyle, moves out of the joint socket. When you close your mouth, the ball slides smoothly back in place.
- A soft cushion, or disc, lies between the ball and socket to prevent them from rubbing and to absorb shocks from movements like chewing.
- Holding all this together are muscles that stretch from the top of the skull to the lower jaw and into the neck.
- The TMJ allows us to open and close our mouths and move our jaws from side to side and backward and forward. As a result, we can talk, yawn, chew and swallow. You can feel your jaw joint or TMJ by placing fingers on each side of your face in front of your ears. Now open and close your mouth. You should feel the condyle moving in and out of the socket.

Symptoms

1. Pain in the face, chewing muscles, temples, neck and shoulders
2. Popping, clicking or grating noises when the jaw opens and closes
3. Inability to open the mouth very wide
4. Lockjaw
5. A tired feeling in the face
6. Sudden uncomfortable bite, as if the upper and lower teeth aren't fitting together right
7. Swelling on the side of the face
8. Earaches, toothaches, headaches, ringing in the ears, dizziness and hearing problems can also be associated.

Possible Causes

1. Injury to the jaw, chin or TMJ as a result of a car accident, fight, opening the mouth too wide, or a fall.
2. Grinding or clenching the teeth, which puts a lot of pressure on the TMJ.
3. Clenching/grinding may be from too many stimulants (like caffeine), sympathetic overdrive, or related to an airway issue.
4. Stress that causes a person to tighten facial and jaw muscles or clench his or her teeth.
5. Dislocation of the soft cushion or disc between the ball and socket.
6. Arthritis, such as osteoarthritis or rheumatoid arthritis, which can result from injury.

Treatments

Simple self-care practices are often effective in easing TMD symptoms. Acute pain following trauma can be treated and cured. Chronic pain, where tissue damage occurred long ago, can be managed.

Prolozone Therapy

A local anesthetic called procaine is injected into facial muscles, followed by ozone gas. This treatment utilizes oxygen to rebuild tissue and increase circulation with no chemicals. Procaine wears off quickly and is generally less expensive than other treatment options. Can be combined with liquid PRF to enhance healing of tissues.

Laser Biostimulation

Using a laser can be helpful for TMD. Lasers improve healing, upregulate immune function, stimulate collagen production, and increase circulation. This results in decreased pain and inflammation. Long term benefits include formation of new collagen and cartilage.

Massage and Gua Sha

Gua sha is a practice of applying pressure and scraping the skin to relieve pain and tension. It can be used to decrease inflammation and tender points. Learn how to Gua Sha at <https://thechalkboardmag.com/how-to-use-gua-sha-facial>. Massage can help greatly as well – focus on neck, collar bones and facial muscles.

Splint Therapy

An oral appliance called a splint or guard can be fabricated. The splint can help reduce clenching or grinding, which eases muscle tension. It also helps stabilize the jaw position and decrease joint compression. Over the counter guards are helpful in preventing clenching and grinding, but may make jaw pain worse.

Mouth Tape

Mouth Tape helps with nasal breathing while sleeping. Becoming a nose breather is a process, but even repeated cycles of just a few minutes of nose breathing can effectively train your body to do it regularly.

1. Prior to trying lip taping, make sure that you clear your nasal passages by blowing your nose and/or sinus rinsing. Xlear spray works well, or simply use a Neti pot with sterile saline.
2. Once you are able to seal your lips and breath through your nose, you can apply lip tape.
3. Use medical tape, Somnifix strips, or Snoreless strips. Somnifix strips are hypoallergenic, easily removed by simply opening your mouth, and are shaped to sit directly on the lips.

Why should I mouth tape? Better sleep, less change of grinding teeth, less cavities & bad breath, increased nitric oxide!

NSAIDS

Nonsteroidal anti-inflammatory agents (Ibuprofen, Tylenol, Aleve) are very effective for reducing inflammation in joints and are recommended before bed and upon waking. Most can be bought over-the-counter at pharmacies and drug stores. NSAIDs are indicated for mild to moderate acute inflammatory conditions. They may be used for 2 weeks. Long term NSAID use is not recommended.

Physical Therapy & Chiropractic

TMD can be related to overall skeletal and muscle imbalances. Some chiropractors and physical therapists are trained in modalities including dry needling. [SEE PHYSICAL THERAPY EXERCISES](#)

Surgical treatment

Surgical treatments are often irreversible and should be avoided where possible. A conservative approach for the treatment for TMD is usually effective. If this condition is not effectively treated with self care techniques and the use of a bite splint, you may require care by a specialist.

Simple Self-care Techniques include:

1. Diet

- Eating SOFT FOODS like soups, smoothies, eggs, etc.
- AVOID hard and chewy foods (ie French bread, bagels, steak, candy, jerky, etc).
- Cut fruits into small pieces and steam vegetables.

- Chew with your back teeth rather than biting with your front teeth.
- DON'T TAKE BIG BITES or eat any foods that require prolonged chewing.

2. Habit Control

- Keep yawning and chewing to a minimum and avoid extreme jaw movements like yelling or singing. When you need to yawn, place a fist under your chin and press up to keep your mouth from opening too wide.
- Avoid oral habits that put strain on the jaw muscles and joints. These include clenching, grinding, biting cheeks, jaw tensing, biting objects, popping your jaw joint, leaning on the palm of your hands while reading or watching TV or other habits.
- Do not thrust your lower jaw forward, such as biting off a piece of thread, smoking, applying lipstick or while under stress.
- Avoid sleeping on stomach or leaning on the jaw since this puts adverse forces on the jaw/neck muscles.
- DO NOT CHEW GUM! Chewing gum much of the day increases the wear and tear on the joint giving little opportunity for your jaw to recover between meals.

3. Learning how to rest the tongue, teeth and lips

- Closely monitor your jaw position during the day in order to maintain a relaxed and comfortable position. This involves placing the tongue lightly on the top of your upper front teeth, allowing the teeth to come apart and relax the jaw muscles.
- *Lips together teeth apart* is a technique to keep the jaw in neutral relaxed position. The teeth should never be touching (Except occasionally during swallowing).
- Saying the letter "N" throughout the day can remind you to unclench or discontinue grinding your teeth.
- Practice this technique during the day and before falling asleep.
- Consider using Lip Tape at night

Home Physical Therapy

Physical therapy you can do at home, which focuses on gentle muscle stretching and relaxing exercises, is helpful. Many people find that a routine of ice, exercise and applying moist heat helps TMD symptoms.

Ice → Exercise → Heat:

- **Ice**
Apply an ice pack to the side of your face and temple for 3-10 minutes 2-4x daily. Ice should only be applied to the painful area until numbness is experienced. This relaxes tight muscles that may be causing spasms. Heat or ice can reduce joint or muscle pain and relax the muscles. For acute injuries cold is recommended.
- **Massage & Stretch**
Use your fingers to massage the tender muscles in a circular motion for 5-10 seconds. Gently stretch the mouth open to the point where it is comfortable and not painful and hold open for 5 seconds. Alternate massage/stretching technique for 5-10 repetitions. This helps reduce pain and heal sore muscles.
- **Heat**
Apply heat for 5-10 minutes 2-4x times daily. Microwave a wet towel for about 1 minute or until towel is warm. You can also wrap the moist hot towel around a hot water bottle to keep it warm longer. This increases circulation and relax involved muscles.