## Compliments of:

# Temporo-Mandibular Joint Disorders

# To support TMD research,

or locate knowledgeable and experienced experts in orofacial pain, please contact:

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For more information please visit the AAOP website at www.aaop.org and select Patient Resources.

This brochure is produced by the American Academy of Orofacial Pain.

The American Academy of Orofacial Pain is an organization of healthcare professionals dedicated to alleviating pain and suffering through the promotion of excellence in education, research and patient care in the field of Orofacial Pain and associated disorders.

This brochure is intended to provide general information on temporomandibular disorders and is not a substitute for careful evaluation and treatment by a dentist, physician, or orofacial pain expert.



## What is TMD?

The joint that holds the lower jaw below the skull is known as the <u>Temporomandibular Joint</u>, or TMJ. This joint is located in front of your ear on both sides of your head.

When it does not work correctly or causes pain, doctors use the term TMD or <u>Temporomandibular</u> Joint <u>Disorder</u>.

Problems in the joints or in nearby muscles may cause TMD. Your doctor can give you more details about your diagnosis and treatment options.

# TMD Symptoms can include:

- Jaw pain
- Neck pain
- Headache
- Earache
- Difficult jaw opening: catching, locking, or shifting
- Painful joint noises: clicking, popping, or grating

# **TMD Diagnosis**

Your doctor will perform a complete evaluation. It may include:

- A review of your medical, dental, and pain history
- A brief social and psychological history
- A physical examination of your head and neck, including muscles, nerves, jaw joints, and mouth
- Additional testing which may include X-Rays, CT, MRI, laboratory tests, diagnostic injections, or other tests

Specially trained dentists, physicians, physical therapists, and psychologists are your best source for the proper diagnosis and management of TMD and Orofacial Pain.

## **Causes of TMD**

TMD usually has several symptoms and more than one cause. Research has shown that several things may be acting together, including jaw injuries or joint disease, to cause TMD:

## Jaw Injury

Getting hit in the jaw, or over-stretching from: wide opening during eating, long dental procedures, or inserting breathing tubes for surgery.

#### **Abnormal Habits**

Clenching, grinding, fingernail biting, and chewing gum can lead to TMD in certain people. These habits can also make it harder to stop the pain.

#### Occlusion

Research has shown that the way your teeth bite together (occlusion) is rarely the cause of TMD. In a small number of people, it may be part of why the pain is not going away.

## **Psychological Factors**

Studies have shown that emotional stress, depression, and anxiety increase pain.

## **Prescription Medications**

Some prescription medicines can affect the brain and muscles. This can lead to more pain.

#### **Joint Diseases**

Several types of arthritis can happen in the TMJ, just like any other joint in the body. Some of these conditions may require teamwork from multiple doctors for your care.

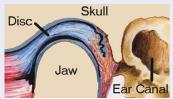
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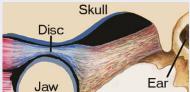
# **Understanding TMD**

TMD pain can come from your jaw joint or the muscles that help move the jaw. This is why your doctor will examine your jaw joint and the muscles in your head and neck.

#### **Normal TMJ Anatomy**

The TMJ is a joint that can move up and down and side-to-side. There is a shock-absorbing disc between the jaw bone and skull. The disc moves with the jaw and protects the bones as you open and close.



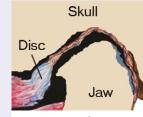


Normal TMJ: Jaw Closed

Normal TMJ: Jaw Open

#### **TMJ Arthritis**

The bone and soft tissues of the jaw joint can also break down over time in a disease known as arthritis. The worn bone and disc can make crunching sounds or cause pain for some people. Arthritis can be caused by wear and tear on the joint.

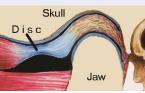


TMJ Arthritis

Osteoarthritis is more common in older people. But pain may also be related to joint diseases that affect the whole body, such as rheumatoid arthritis.

#### **Joint TMD**

The tissues inside the jaw joint can become injured and cause pain when you try to move your jaw, to talk, or to eat. Sometimes the shock-absorber disc gets moved out of place and damaged. When the



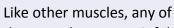
Disc out of place

disc is unable to move normally, it can cause pain with joint noises. This can also lead to jaw sticking or locking when you try to open your mouth.

#### Muscle TMD

Large chewing muscles attach your jaw to your skull. These muscles work to open and close your mouth and move your jaw from side-to-side as you talk or chew.

While moving your jaw, you also use muscles to support your head and neck.



these can become painful, tired, or tense from overuse. Sometimes the brain confuses these pain signals and you might feel the pain in other places. This can lead to widespread jaw pain, neck pain, or headache.



**Head and Neck Muscles** 

# **Treatment of TMD**

Because there are so many possible causes of TMD, there is no "quick fix" or "cure." Your TMD symptoms may be temporary and self-limited without serious long-term effects. Your doctor will work with you to help you manage the condition.

Most researchers recommend that you and your doctor should first focus on conservative and reversible therapies. Research has shown that self-management and conservative treatments are the most successful.

The goals of treatment are to decrease pain, to increase jaw function, and to limit the impact of TMD on your daily life. TMD is managed like other joint and muscle problems in the body.

**Self-management behaviors** These are some of the most successful ways of helping relieve your pain .

**Stress management** Studies have shown that managing stress and anxiety helps relieve TMD symptoms. Your doctor might recommend techniques you can use to help manage stress, or they may also refer you to other practitioners who can give you an additional level of support.

Physical therapy
Trained professionals that help patients
rehabilitate from many types of injuries. Your
doctor will determine whether physical therapy
can help your TMD symptoms.

**Medications** Many medicines are available for discomfort. Some of these are traditional pain-relievers, while others work in different ways to treat pain. Your doctor will provide you with a specific treatment plan to fit your needs.

**Orthotic** Also known as a stabilization splint, nightguard, or biteguard. The design will depend on your condition. It should be used the way your doctor advises. Most orthotics work to keep your teeth apart, to relieve pressure on your jaw joints, and to help your jaw muscles relax.



Orthotic made of clear acrylic

**Surgery** In cases of severe, constant pain or loss of function, surgery may be needed. Research has shown that for about 5 out of 100 TMD patients, conservative therapy is not enough. These patients may benefit from surgery.

# Self-management should include:

- Avoid grinding and clenching your teeth by keeping them slightly apart and the jaw relaxed
- Avoid chewing on items that are not food, for example: pens, pencils, toothpicks, or fingernails
- Avoid playing musical instruments that strain your jaw or put pressure on your jaw
- Limiting your jaw opening during yawning or chewing, up to two fingers wide
- Resting your jaw muscles by avoiding heavy chewing on gum, bagels, ice, tough meat, or hard candy
- Using cold packs or moist hot compresses
- Massaging painful muscles
- Learning stress management and relaxation techniques
- Performing gentle jaw stretches or exercises as directed by your doctor or physical therapist
- Identifying problems sleeping and working with your doctor on a plan to improve your sleep
- Keeping a log of your specific pain and anything that you notice makes it better or worse
- Keeping a record of your treatments for TMD is often helpful