

**NOW EVEN MORE REASONS TO LOVE BOTOX...**

**THE ASSOCIATES OF OTOLARYNGOLOGY CAN TREAT  
TMJ DISORDER**

**DENVER** – Today, the ear, nose and throat experts at the Associates of Otolaryngology discuss TMJ dysfunction, its causes, hidden causes, and treatment options, including brand new research using the cosmetic wonder we're all getting increasingly familiar with lately...BOTOX®.

The Associates of Otolaryngology's Dr. Christopher Cote remarks, "We all know that the benefits of BOTOX® therapy include treatment of fine lines and wrinkles on the face, treatment of excessive sweating of the palms and feet, and even relieving migraine headaches. But did you know that some practices are now certified to use BOTOX® injections as a solution for jaw pain, tension, and TMJ disorder? We're excited to be able to offer this newest option for our patients." Adds Colorado's only female Double-Board Certified Facial Plastic Surgeon Dr. Nicolette Picerno: "We think we've really found a new treatment that will help so many, and it's something used for so many different things. I am still amazed at how innovative and useful BOTOX® is."

Most people tend to occasionally clench their jaws or grind their teeth due to stress. Stress, fatigue, and even depression have all been linked to jaw muscle tension. Jaw muscle tension can then lead to numerous painful and debilitating conditions such as teeth grinding (bruxism), excessive jaw clenching, and pain in the neck, ears, and shoulders. Not only do these conditions cause severe discomfort, but all of these conditions can also cause extreme and costly damage to the teeth.

**What is TMJ Syndrome?**

Located on both sides of the head at the point where the jawbone meets the skull, the temporo-mandibular joint (TMJ) is used during talking, eating, swallowing, and other everyday activities. If this joint becomes displaced or is overworked through excessive teeth grinding, a person may suffer severe tension headaches, as well as sharp pain in the jaw.

TMJ dysfunction is unfortunately quite common. Typical therapy and treatment for this disorder included orthotic mouthpieces, anti-anxiety medications, and physical therapy to provide some relief to patients. However, while many patients experienced some success with these methods, none of them effectively treats the true root cause of patients' discomfort – tense jaw muscles. Here's where BOTOX® comes in, but more on that later. First, Dr. Cote would like to address TMJ's causes and hidden causes.

“80% of the TMJ patients I see agree that their symptoms are due to muscle tension.” remarks Dr. Cote. “The other 20% may be more joint and bone-related. The physical manifestation of stress and dental issues such as poorly fitted dentures or other dental work are often also at play in most TMJ cases.”

TMJ is often exacerbated by teeth grinding and jaw pain, but also, TMJ is often confused with an earache because of the location of the joint. “Severe cases of TMJ can really inhibit chewing, swallowing, and talking, so early treatment and addressing the underlying cause is the key to providing relief.” says Dr. Picerno.

### **Hidden and Underlying Causes of TMJ**

TMJ syndrome can be caused by trauma, disease, wear and tear due to aging, a person's habits, or a combination of all of the above.

**Trauma:** Trauma is divided into *microtrauma* and *macrotrauma*.

**Microtrauma** is internal, such as grinding the teeth (bruxism) and clenching (jaw tightening). This continual hammering on the temporomandibular joint can change the alignment of the teeth. Muscle involvement causes inflammation of the membranes surrounding the joint. Teeth grinding and clenching are habits that may be diagnosed in people who complain of pain in the temporomandibular joint or have facial pain that includes the muscles involved in chewing (myofascial pain).

**Macrotrauma**, such as a punch to the jaw or impact in an accident, can break the jawbone or damage the disc.

**Bruxism:** Teeth grinding as a habit can result in muscle spasm and inflammatory reactions, thus causing the initial jaw pain. Changes in the normal stimuli or height of the teeth, misalignment of the teeth, and changes in the chewing muscles may cause temporomandibular joint changes. Generally, someone who has a habit

of grinding his or her teeth will do so mostly during sleep. In some cases, the grinding may be so loud that it disturbs others.

***Clenching:*** Someone who clenches continually bites on things while awake. This might be chewing gum, a pen or pencil, or fingernails. The constant pounding on the joint causes the pain. Stress is often blamed for tension in the jaw, leading to a clenched jaw.

***Osteoarthritis:*** Like other joints in the body, the jaw joint is prone to undergo arthritic changes. These changes are sometimes caused by breakdown of the joint (degeneration) or normal aging. Degenerative joint disease causes a slow progressive loss of cartilage and formation of new bone at the surface of the joint. Cartilage destruction is a result of several mechanical and biological factors rather than a single entity or incident. Its prevalence increases with repetitive microtrauma or macrotrauma, as well as with normal aging. Immunologic and inflammatory diseases contribute to the progress of the disease.

***Rheumatoid arthritis:*** Rheumatoid arthritis causes inflammation in joints and can affect the TMJ, especially in children. As it progresses, the disease can cause destruction of cartilage and erode bone, deforming joints. It is an autoimmune disease involving the antibody factor against immunoglobulin G (IgG). Chronic rheumatoid arthritis is a multisystem inflammatory disorder with persistent symmetric joint inflammation.

## **Symptoms and Signs of TMJ Syndrome**

- Pain in the facial muscles and jaw joints that may radiate to the neck or shoulders.
- Joints may be overstretched.
- You may experience muscle spasms.
- You may feel pain every time you talk, chew, or yawn.
- Pain usually appears in the joint itself, in front of the ear, but it may move elsewhere in the skull, face, or jaw.
- Your face and mouth may swell on the affected side.
- The jaw may lock wide open (it is most likely dislocated), or it may not open fully at all. Also, upon opening, the lower jaw may deviate to one side. You may find yourself favoring one painful side or the other by opening your jaw awkwardly.
- These changes could be sudden. Your teeth may not fit properly together, and your bite may feel odd.

TMJ syndrome may also cause ear pain, ringing in the ears (tinnitus), and even hearing loss. Sometimes people mistake TMJ pain for an ear problem, such as an ear infection, when the ear is actually not the problem at all. The location of the joints in the jaw is just very close to the ear area. When the joints move, you may hear sounds, such as clicking, grating, and/or popping. Others around you may also be able to hear the sounds. Clicking and popping are common. This means the disc may be in an abnormal position. Sometimes no treatment is needed if the clicking and popping sounds do not cause pain.

You may have trouble swallowing because of the muscle spasms.

Headache and dizziness may be caused by TMJ syndrome. You may feel nauseous or vomit.

Increasingly, BOTOX® is now being used off-label as an alternative treatment for TMJ disorders and associated jaw tension and pain. When injected into facial muscles afflicted with soreness and discomfort, BOTOX® relieves TMJ and jaw tension for many patients. The injections often eliminate headaches resulting from teeth grinding, and, in cases of severe stress, BOTOX® can even minimize and alleviate lock-jaw. Although BOTOX® treatment for these conditions is presently experimental, ongoing evidence indicates that it can be extremely effective.

The BOTOX® alternative treatment for TMJ disorders and jaw tension is usually quick, straightforward, and effective. A non-surgical procedure, BOTOX® injections are administered in a doctor's office, and treatment requires no hospital stay for recovery. Most patients experience noticeable improvement within one or two days of their first treatment, although relief can take up to a week.

### **Candidates for BOTOX® Alternative Jaw Treatment**

BOTOX® appears to be a safe alternative to traditional treatment for most people who experience jaw tension or have a TMJ disorder. Nevertheless, it is important for BOTOX® providers to screen patients to determine their eligibility for treatment. During the initial consultation, your doctor or dentist should carefully review every prospective patient's medical history before beginning treatment. Patients must disclose whether they are using any medications, drugs, or other substances that could negatively interact with BOTOX®. They should also report any allergies they have to avoid a possible negative reaction to BOTOX®. People with jaw tension or TMJ disorders who are not able to have BOTOX® injections will be advised to undergo a more traditional treatment.

## **Risks and Benefits of BOTOX® Treatment for TMJ Syndrome**

For people suffering from soreness and pain resulting from problems with the temporo-mandibular joint, BOTOX® injections may provide substantial relief. While reducing the ability of facial muscles to engage in problematic grinding, BOTOX® allows them to perform daily activities such as talking, chewing, and swallowing with greater ease. This makes the BOTOX® alternative treatment for jaw tension a convenient and effective option for many people. In addition, the treatment can help safeguard dental health, since excessive grinding can result in worn teeth and damaged gums that may require costly ongoing treatment. A single BOTOX® treatment can bring relief up to about four months. Some patients may even find that the troublesome jaw muscles begin to atrophy after a few sessions, so that injections can be performed increasingly less often and may eventually become unnecessary. BOTOX® injections target only the problematic jaw muscles, leaving surrounding muscles intact and jaw function uncompromised. “Many patients even find that their jaw functionality increases once the BOTOX® treatment takes the pain out of opening and closing their jaw.” adds Dr. Cote. Dr. Picerno cautions: “While BOTOX® treatment for TMJ disorders appears to be safe, certain medications, intoxicants, and other substances can minimize or negatively impact the effectiveness of BOTOX® injections. For this reason, we ask that patients should honestly disclose any medication or substance use to us prior to treatment.” In some cases, patients have experienced bruising and bleeding at injection sites, or excessive paralysis of the muscles in the areas treated. Although complications are rare, all possible risks should be discussed with your doctor prior to treatment. Drs. Cote and Picerno also caution that the downside of this new treatment option is the fact that many more units of BOTOX® are needed to treat TMJ than for cosmetic purposes, as well as the limited availability or non-existence of insurance coverage for BOTOX® treatments. “Ultimately, regardless of any new and exciting treatment options, the underlying, root causes of this disorder need to be addressed first and foremost.” says Dr. Cote.

## **Is TMJ Treatment With BOTOX® Covered By Insurance?**

Currently, the use of BOTOX® for TMJ disorders is not covered by medical insurance plans. However, because TMJ problems are largely a dental issue, it is conceivable that insurance companies will ultimately cover BOTOX® injections as a means of preventing damage to the gums and teeth caused by excessive jaw grinding. Although insurers have yet to cover this treatment, it is becoming increasingly popular among patients, doctors, and dentists.

For more information on TMJ and other ear, nose and throat related issues, contact Dr. Cote, Dr. Picerno and their colleagues at The Associates of Otolaryngology today at 850 E. Harvard Ave., Suite 505, 303.744.1961.