

HEALTH IN OUR HANDS!

The Arkansas State University Wellness Program Newsletter
www.astate.edu/conhp



Skin Cancer

Temporomandibular Disorders

Overview

Open your jaw all the way and shut it. This simple movement would not be possible without the Temporo-Mandibular Joint (TMJ). It connects the temporal bone (the bone that forms the side of the skull) and the mandible (the lower jaw). Even though it is only a small disc of cartilage, it separates the bones so that the mandible may slide easily whenever you talk, swallow, chew, kiss, etc. When you bite down hard, you put force on the object between your teeth and on the joint. In terms of physics, the jaw is the lever and the TMJ is the fulcrum. The cartilage between the bones provides a smooth surface, over which the joint can freely slide with minimal friction. Therefore, the forces of chewing can be distributed over a wider surface in the joint space and minimize the risk of injury. In addition, several muscles contribute to opening and

closing the jaw and aid in the function of the TMJ.

Causes

In most patients, pain associated with the TMJ is a result of displacement of the cartilage disc that causes pressure and stretching of the associated sensory nerves. The popping or clicking occurs when the disk snaps into place when the jaw moves. In addition, the chewing muscles may spasm, not function efficiently, and cause pain and tenderness. More women than men have it, and it's most common among people between the ages of 20 and 40. Damage can be caused by

- Major and minor trauma to the jaw
- Teeth grinding and jaw clenching
- Excessive gum chewing
- Stress and other psychological factors
- Improper bite or malpositioned jaws
- Arthritis

Symptoms

- Pain or tenderness in your face, jaw joint area, neck and shoulders, and in or around the ear when you chew, speak, or open your mouth wide
 - Problems when you try to open your mouth wide
 - Jaws that get "stuck" or "lock" in the open- or closed-mouth position
 - Clicking, popping, or grating sounds in the jaw joint when you open or close your mouth or chew. This may or may not be painful.
 - Trouble chewing or a sudden uncomfortable bite -- as if the upper and lower teeth are not fitting together properly
 - Swelling on the side of your face

You may also have toothaches, headaches, neck aches, dizziness, earaches, hearing problems, upper shoulder pain, and ringing in the ears (tinnitus).

Treatment

If your symptoms persist, your doctor may recommend a variety of treatment options. In conjunction with other nonsurgical treatments, medications that may help relieve the pain associated with TMJ disorders may include:

- Pain relievers.
- Muscle relaxants.
- Sedatives.

Non-pharmaceutical treatments for TMJ disorder include:

- **Bite guards (oral splints).** Often, people with jaw pain will benefit from wearing a soft or firm device inserted over their teeth.

- **Physical therapy.** Treatments might include ultrasound, moist heat and ice — along with exercises to stretch and strengthen jaw muscles.

- **Counseling.** Education and counseling can help you understand the factors and behaviors that may aggravate your pain, so you can avoid them. Examples include teeth clenching or grinding, leaning on your chin, or biting fingernails.

When other methods don't help, your doctor might suggest procedures such as:

- **Arthrocentesis.** This procedure involves the insertion of needles into the joint so that fluid can be

irrigated through the joint to remove debris and inflammatory byproducts.

- **Injections.** In some people, corticosteroid injections into the joint may be helpful. Infrequently, injecting botulinum toxin (Botox, others) into the jaw muscles used for chewing may relieve pain associated with TMJ disorders.

- **Surgery.** If your jaw pain does not resolve with more-conservative treatments and if it appears to be caused by a structural problem within the joint, your doctor or dentist may suggest surgery to repair or replace the joint.

Lifestyle Changes

If you have TMJ:

- Avoid overuse of jaw muscles. Eat soft foods. Cut food into small pieces. Steer clear of sticky or chewy food. Avoid chewing gum.

- Stretching and massage. Your doctor, dentist or physical therapist may show you how to do exercises that stretch and strengthen your jaw muscles and how to massage the muscles yourself.

- Heat or cold. Applying warm, moist heat or ice to the side of your face may help alleviate pain.

- Don't rest your chin on your hand. Don't hold the phone between your shoulder

and ear. Practice good posture to reduce neck and facial pain.

- Keep your teeth slightly apart as often as you can. This will relieve pressure on your jaw. Put your tongue between your teeth to control clenching or grinding during the day.

References

- <http://www.entnet.org/content/tmj>
- <http://www.mayoclinic.org/diseases-conditions/tmj/basics/definition/con-20043566>
- <http://www.webmd.com/oral-health/guide/temporomandibular-disorders-tmd?page=1#1>

Other News:

**If you have any suggestions for newsletter topics, please contact Dean Susan Hanrahan at hanrahan@astate.edu.

The Arkansas State University Employee Wellness Newsletter is published monthly during the academic year by the College of Nursing and Health Professions. Health questions can be addressed to Dean Susan Hanrahan, Ph.D., ext. 3112 or hanrahan@astate.edu. Produced by Kelsie Clark, graduate student in the College of Nursing and Health Professions, Physical Therapy Program.