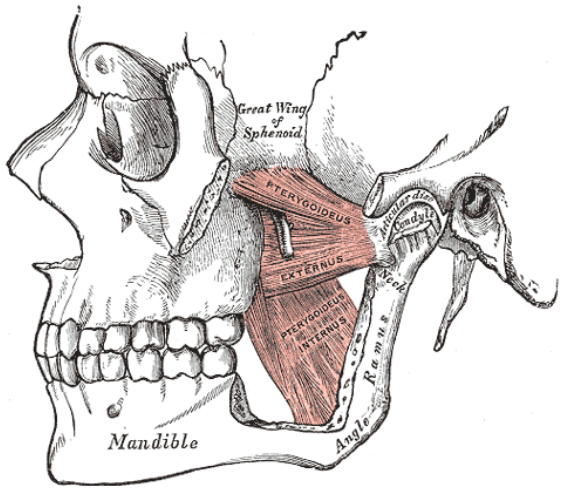
Fact Sheet:

TMJ (Temporomandibular joint) Dysfunction

The temporomandibular joint (TMJ) is formed by the mandible or jawbone joining with the temporal bone of the skull, just below and in front of the ear. Each joint has a cartilage disc inside keeping the temporal bones and the mandible bone apart to prevent the bone surfaces from wearing and damaging each other, as well as to act as shock absorber for the joint. The jaw joint is surrounded by a capsule or envelope enclosing it.



The TMJ is opened and closed thousands of times each day as we eat, speak, breath, and yawn, and is thus the focal point of much activity and physical forces. Jaw movement is driven by many muscles connected to the skull and the neck, which are responsible for its different actions. Additionally the muscles involved in keeping the jaw in a rest position have a direct connection to the neck. Therefore in diagnosing a TMJ disorder it is important to look at the neck and areas of the body that may affect the neck.

Symptoms

Common TMJ disorder symptoms include:

- Headaches
- Ringing in ears
- Jaw pain
- Back pain
- Face pain
- Ear pain/stuffiness
- Neck ache
- Dizziness
- Difficulty chewing
- Clenching/grinding
- Fatigue
- Shoulder pain

A problem in your TMJ can cause multiple, seemingly unrelated problems. While some symptoms can be easily traced back to the jaw joint – such as difficultly or pain in biting and chewing, clicks and grating noises from your jaw, or pain in your jaw or face – other symptoms, like neck back, knee, and shoulder pain, sinus pain, pain behind the eye, or ringing in the ears, may make it less obvious that the TMJ is the root cause of the problem.

Causes

Discomfort or pain in the TMJ can have many causes:

- Trauma to the TMJ or surrounding muscles and tissues from a sporting injury, car accident or other physical incident
- Misaligned bite from uneven teeth, incorrect positioning of jaw, or loss of bite height
- Daytime clenching of the jaw and nighttime grinding of teeth while asleep (referred to as *bruxism*). The underlying cause of night time grinding is often sleep apnoea.
- Stresses on other areas of the skeletal system, e.g. neck

All too often, the foundation of the problem will be a combination of many different causes, which are all interacting and exasperating each other.

Treatment

In some cases, the symptoms of TMJ disorders may go away without treatment. However if symptoms persist the following options are available for treatment:

Physiotherapy

Treatments might include massage, mobilisation, ultrasound, heat, and ice - along with exercises to stretch and strengthen jaw muscles (see below).

Medications

In conjunction with other nonsurgical treatments, medications may help relieve the pain associated with TMJ disorders.

Bite guards (oral splints)

Often, people with jaw pain will benefit from wearing a soft or firm device inserted over their teeth.

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.

Surgical or other procedures

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.

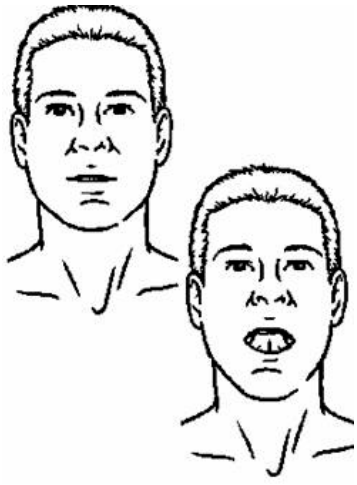
Injections

In some people, corticosteroid injections into the joint may be helpful. Infrequently, injecting botulin 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. The National Institute of Dental and Craniofacial Research considers TMJ surgery to be controversial and recommends that it be avoided whenever possible.

Exercises



☐ Tongue Clucking

Making a clucking sound by positioning the tongue against the hard palate. Aim to maintain appropriate tongue/jaw resting position throughout the activity. Do each exercise _____ times. Repeat _____ times a day.

☐ Controlled jaw opening

Maintain your tongue on the hard palate whilst opening and closing the jaw. This will limit excessive movement of the mandible. Do each exercise _____ times. Repeat _____ times a day.

☐ Mandibular Rhythmic Stabilisation

Apply resistance to opening, protrusion and lateral deviation of the jaw in a resting position. The goal is to promote normal positioning of the jaw while maintaining postural alignment. Do each exercise _____ times. Repeat _____ times a day.

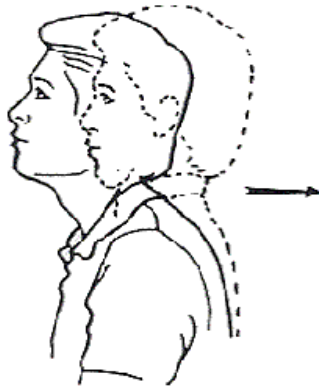
Resistance to opening

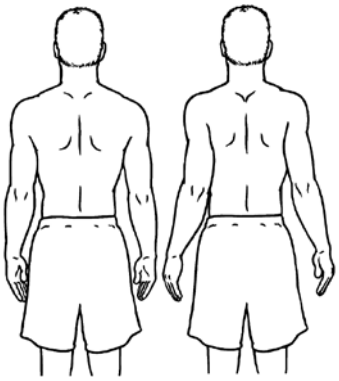
Resistance to protrusion

Resistance to lateral deviation

☐ Cervical retraction

Keep your head level and move it straight back. This stretches the muscles at the base of your skull and strengthens those at the front of your neck. Hold for _____ seconds. Do each exercise _____ times. Repeat _____ times a day.



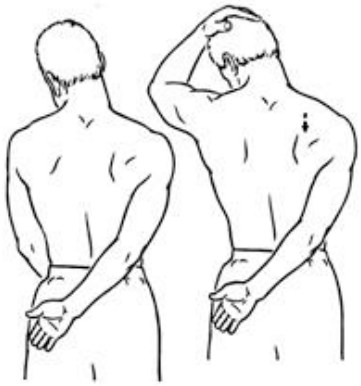


☐ Shoulder blade retraction

Sitting upright, squeeze your lower shoulder blades together without lifting your shoulders up. Hold for _____ seconds. Do each exercise _____ times. Repeat _____ times a day.

☐ Upper trapezius stretch

Gently pull your ear to the side so it approaches your opposite shoulder. Hold for ____ seconds.
Repeat ____ times.



☐ Levator scapulae stretch

Place an arm behind your back. Rotate your head to the opposite side and gently pull your chin towards your underarm. Hold for ____ seconds. Repeat ____ times.

☐ Scalene / Sternocleidomastoid Stretch

Slightly tilt your chin up to the roof. Gently pull your ear to the side so it approaches the back of your opposite shoulder. Hold for ____ seconds. Repeat ____ times.