

# Temporomandibular joint disorders

## Temporomandibular joint surgery

### TMJ arthrocentesis

- This minimally invasive procedure is used to wash/flush out the joint space.
- First, two needles are inserted into the joint space.
- Next, sterile fluid is used to break up any adhesions and remove any inflammatory mediators from the joint fluid.
- Medications may be added at the end of the procedure to help reduce inflammation or pain.

### TMJ replacement

- The surgeon can replace or reconstruct parts of the joint with either synthetic (artificial) materials or with a graft from the patient.
- This procedure is performed when other treatments have failed.

### TMJ arthrotomy/arthroplasty

- An incision is made to allow the surgeon to open the joint.
- The surgeon can then see if there is an anatomical problem in the joint.
- Next, the surgeon can reshape the bone and reposition or remove the disc as necessary.

## LOCATIONS

**Boston Children's Hospital**  
300 Longwood Avenue  
Boston, MA 02115  
617-355-6259

**Boston Children's Hospital  
at Waltham**  
9 Hope Avenue  
Waltham, MA 02453  
781-216-1600

## International

For families residing outside of the United States, contact Boston Children's International Center, which facilitates the medical review of patient records and appointment scheduling and provides assistance with customs and immigration, transportation and hotel and housing accommodations.  
01-617-355-5209 | [international.center@childrens.harvard.edu](mailto:international.center@childrens.harvard.edu)

[bostonchildrens.org/plastics](http://bostonchildrens.org/plastics)



**Boston Children's Hospital**  
Until every child is well<sup>SM</sup>

## The temporomandibular joint (TMJ)

The temporomandibular joint (TMJ) is the most commonly used joint in the body. It is located between the lower jaw and skull, with a disc made of cartilage in between.

When all parts in this system function well together, we are able to open our mouths, chew and talk comfortably. The bones, muscles, ligaments and interdigitation (interlocking) of the teeth help to keep the joint balanced.

When you have TMJ dysfunction (TMD), there is a problem with one or more parts of this system.

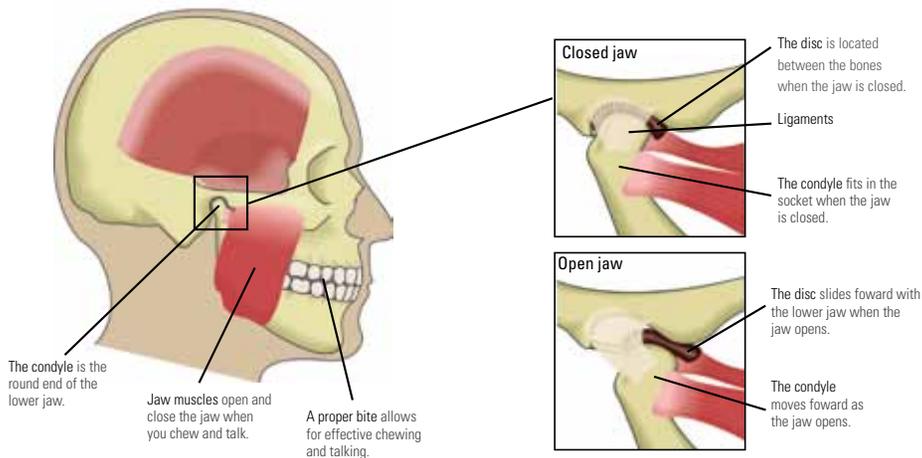
## What are temporomandibular joint disorders?

Disorders of the TMJ can be caused by trauma, spasm of the chewing muscles, pain radiating from headaches, uncomfortable posture habits and clenching or grinding of teeth.

## What are signs that you may have a problem with your temporomandibular joint?

If you have one or more of the following, you may want to see a TMJ specialist:

- Jaw fatigue after eating or chewing
- Ear aches or ringing in the ear
- Popping or clicking of your jaw joint, along with pain
- Inability to open your jaw (closed lock)
- Inability to close your jaw (open lock)
- Asymmetric (uneven) mouth opening or jaw movements
- Pain around the temporomandibular joint



## The temporomandibular joint (TMJ)

The TMJ is located where the lower jaw meets the skull base. There is a disc of cartilage between the skull and lower jaw that absorbs pressure in the joint.

The bone, muscles, ligaments and/or interdigitation (interlocking) of the teeth help to keep the joint balanced. Contraction and relaxation of surrounding muscles results in the movement of the joint, which allows us to talk and chew comfortably.

When you have TMD, there is a problem in one or more parts of this system.



### Tight muscles

The muscles surrounding the TMJ can become fatigued from overuse. This can cause pain that radiates to the jaw joint.



### Damaged joints

The presence of a click or pop that does not improve and is accompanied by pain may indicate a problem.



### Arthritic joint disease

This may occur when the joint becomes inflamed. It may cause bone erosion, leading to jaw asymmetry (unevenness) and/or a small jaw.



### TMJ fracture

Also known as condyle or jaw fracture, this may be a result of trauma, a fall or an accident.

## TMD therapy and treatment options

### Self care

For certain TMJ problems, home care can help:

- Rest the jaw joint when it becomes tender.
- Avoid hard or chewy foods that strain muscles (such as gum, nuts, bagels or steak).
- Use moist, warm heat to relax muscles.
- Use an ice pack to reduce swelling if there has been trauma to the joint.
- Monitor your stress levels and practice relaxation techniques to decrease the chance of grinding or clenching your teeth.

### Medications

Your oral and maxillofacial surgeon may prescribe anti-inflammatory medications or muscle relaxants to help your condition.

### Physical therapy

Physical therapy techniques can help reduce discomfort. Possible treatments include:

- Jaw and muscle strengthening and stretching exercises
- Posture training
- Electrical stimulation
- Biofeedback
- Ultrasound

### Dental treatment/splint therapy

Based on the severity of symptoms, your surgeon may advise you to wear a nightguard (occlusal bite splint). This device reduces the stress on the joint and muscles. It also decreases the effects of grinding of your teeth. The nightguard can be fabricated by your dentist.