
Temporomandibular Joint Dysfunction

Where is the Temporomandibular Joint (TMJ)?

The TMJ is the joint between the lower jaw and the skull, and is situated just in front of the ear canal. The joint includes a cartilage disc, which separates the jaw from the skull. There are also four powerful sets of muscles, which move the jaw when speaking or chewing.

What is Temporomandibular Joint Dysfunction (TMD)?

This is a common group of conditions associated with the chewing system. Problems can affect one or both of jaw joints, the associated muscles and teeth. The symptoms from these conditions vary from person to person.

What are the symptoms?

Common symptoms include:

- jaw and face pain
- jaw joint noise: such as clicking, crunching, grating or popping
- earache
- headache
- limited mouth opening
- jaw locking
- pain radiating along the cheek bone or down the neck

Most jaw joint problems are made worse by chewing and at times of stress.

Is this condition serious?

Although the symptoms of TMD can be worrying, most go away on their own, typically after a few months. If you have had TMD it does not mean you will get arthritis in your jaw joints. Arthritis in the jaw joints is extremely rare.

What causes it?

Trauma, for example:

- a knock to face or jaw
- unexpected wide mouth opening - as in a very wide yawn
- biting down on something hard
- tooth grinding (bruxism) and tooth clenching, often at night
- stress
- nail biting
- uneven bite or altered chewing pattern to avoid a sore tooth

Sometimes no obvious cause can be found but symptoms may be associated with other stress related disorders such as tension, headaches, low back pain and abdominal pain.

What is happening to cause the symptoms?

Pain can be caused by the muscles in and around the joint tightening up and causing limited mouth opening. Joint noise occurs if the cartilage disc is stretched out of its normal position, moves abnormally during jaw movement and then snaps back into position; rather like the sound of a rubber band being stretched and released.

The noise sounds louder to the patient as the joint is just in front of the ear.

Occasionally the cartilage disc can slip forward in the joint space and not return to its normal position, causing locking of the joint and limited mouth opening.

What are the treatments?

Most TMD problems will improve spontaneously over a few months. Treatments vary depending on whether you are suffering from muscle pain, derangement of the joint itself or a combination of both.

Generally treatment is aimed at relaxing the jaw muscles allowing the cartilage disc to return to a normal position. This is known as conservative treatment.

Effective treatments include:

Reassurance:- Once it has been explained that the condition usually resolves after a period of time, many patients do not seek further treatment.

A soft diet that requires little chewing:- This allows over-worked muscles to rest.

Analgesia (painkillers):- Anti-inflammatory medication such as Ibuprofen can reduce both pain and inflammation within the joint.

Local heat:- e.g. a hot water bottle wrapped in a towel and applied to the side of the face will increase blood flow in the muscles and help them to relax.

Eliminate adverse habits:- Grinding your teeth, clenching or chewing fingernails can all cause joint and muscle pain. This may be difficult to stop as some habits are done when asleep or subconsciously when you may not be aware of them.

Jaw joint and muscle exercises:- These are designed to help relax muscles or to encourage a displaced cartilage to resume its normal position. The best ones will have been discussed with you, and it is important to carry them out as instructed for them to be effective.

A nightguard:- This is a soft splint rather like a gum shield which is worn over the lower teeth usually at night. This helps “rest” the jaw joint and the surrounding muscles particularly if you grind your teeth in your sleep.

Avoid yawning:- This can cause a strain to the joint ligaments and over stretch jaw muscles, particularly if the yawn involves a very wide mouth opening.

Physiotherapy

Avoid overworking the joint and jaw muscles:- This can occur by talking a lot , shouting and performing repetitive jaw movements e.g. when chewing gum.

Maintain good dental health:- Worn down full or partial dentures can alter “your bite” meaning you have bite down further or harder in order to chew your food effectively. Equally, broken down or painful teeth which haven’t been treated can alter the way you bite, changing your chewing pattern and putting unbalanced forces on one or either jaw joints and the associated jaw muscles. This can also be the problem when some or all of your back molar teeth have been lost meaning that you only have your front and side teeth to bite and chew with. Your dentist may recommend you have partial dentures made or occasionally implant retained bridges.

What happens if conservative treatment doesn’t work?

Very occasionally when simple conservative measures don’t work then surgery may be indicated. This could involve manipulating the joint whilst you are asleep under a general anaesthetic or rarely the surgeon may look into the joint space using a mini telescope (arthrocentesis) . Even more rare is open surgery directly on the cartilage, ligaments and bone.