

TEMPORO-MANDIBULAR JOINT DISORDERS

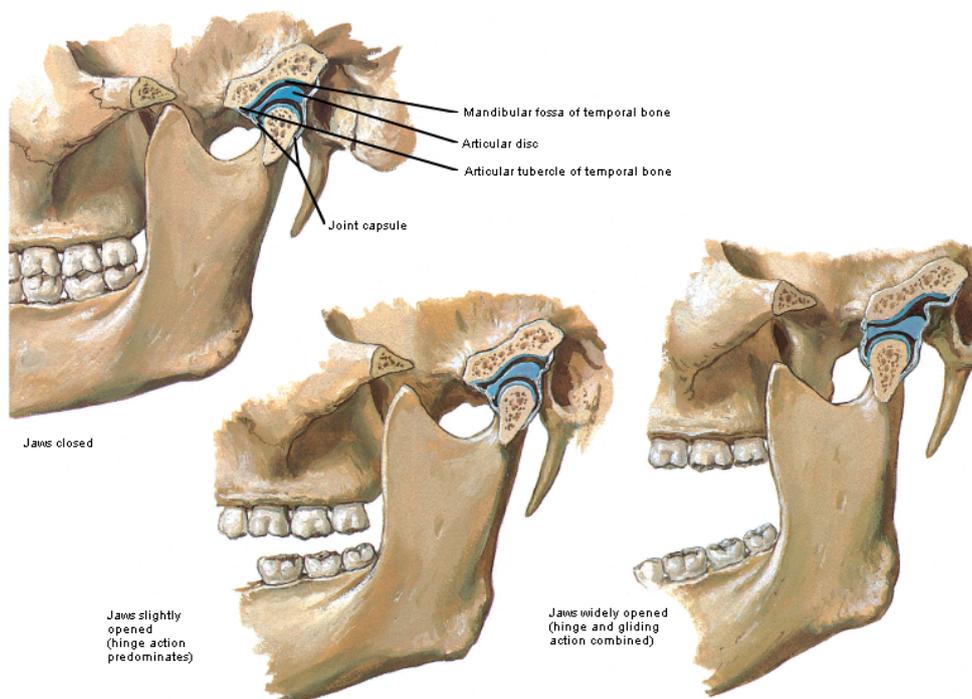
Written by Dr Mark Daniel Atkinson

The Temporo-mandibular Joint (TMJ) is a unique joint in the body. The joint is made between the mandible (lower jaw) and the temporal bone of the skull. It is the only joint that crosses the midline. Moving the jaw on the left, moves it on the right and vice versa. The joint allows the jaw to move in many directions enabling you to talk, eat, swallow and smile.

It is an extremely complex joint. Each joint is made up of a condyle (football shaped head connected to the lower jaw), fossa (depression in the skull), a disc (cushion between condyle and fossa) and ligaments (help to stabilise and restrict jaw movement). Numerous muscles also run between the jaw and the skull, and the contraction of multiple muscles at any one time create the precise jaw movements we use daily.

The joint is unique as opposed to other joints in your body as mentioned before as it crosses the midline. But another unique feature is that it doesn't necessarily stay within the fossa during some movements. When you open only a little the condyle stays within the fossa, but when you posture your jaw forward or when you open wider the condyle translates forward out of the fossa to articulate on a bony eminence. When you swing your jaw to the side, the joint moves out of the fossa on the opposite side. The disc moves with the condyle providing cushioning and lubrication of the joint.

**Temporomandibular Joint
 Joint Action**



F. Netter M.D.
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Sometimes though, there can be problems with the movement of the jaw or there can be associated pain. This is what is referred to as TMD or temporo-mandibular joint disorders.

Temporo-mandibular Joint Disorders

TMD is a range of disorders, not one single entity. It can involve the muscles, the ligaments, the articulating disc, the bony joints or any combination of these. TMD can present on one side or both sides.

It can involve:

- Pain in the jaw, face, head and neck (and referred pain)
- Difficulty closing or opening the jaw
- Noises when moving the jaw
- Associated headaches

Causes of TMD

There are a number of causes that have been associated with the onset of TMD, however, at the moment, researchers and clinicians are often unable to pinpoint precisely what has caused the problem in individual patients. Factors associated with TMD include:

- Trauma *e.g. motor vehicle accidents, fights, sporting injuries*
- Abnormal habits *e.g. tooth clenching or grinding, fingernail biting, lip biting, jaw posturing, holding telephone between neck and jaw, sleeping patterns*
- Musical instruments *e.g. string such as violin or wind instruments such as clarinet or trumpet*
- Psychological factors *e.g. stress, anxiety, depression*. These are known to aggravate TMD which in turn perpetuates stress, anxiety and depression leading to a vicious cycle.
- Diseases of the joints and muscles *e.g. arthritis, tetanus, Parkinson's disease*
- Other factors *e.g. drug abuse, sexual practices*

Management of TMD

TMD is diagnosed by the associated history, signs and symptoms, an examination of the joints, muscles and joint movements, an evaluation of how the problem is affecting everyday life and may involve x-rays and other images.

Not one treatment can completely and quickly solve all the different types of TMD problems. Those who offer quick treatments or fixes are likely selling snake oil as this area has been researched extensively and often the results are not reproducible.

That does not mean that there is no hope!

Firstly, it is useful to think of our approach to TMD as **management** rather than **treatment**. This ensures that you understand that there isn't a simple surgery, magic pill or appliance that you can wear that will make this go away. What your neighbour had and what you need may be two different things.

TMD can be acute or can be a chronic problem that may have been present for many months or even years, and often the approach for each differs. More aggressive approaches may be implemented in acute cases. Whereas chronic pain is often requires more extensive input.

It is well understood that there is a bio-psycho-social model involved in TMD, as is with other chronic pain disorders. Addressing each of these components is the best way to help manage and reduce your symptoms.

Research has clearly shown that treatment that you can perform on a regular basis at home are the best options for the majority of TMD cases. The essential key to all management, however, is involving a team of people and finding out what works for YOU. You are a critical member of this team. Others may include Oral Surgeons, Prosthodontists, general dental and medical practitioners, physiotherapists and psychologists.

This information sheet is designed to give you some information and overview about TMD. Dr Atkinson will talk more specifically about your individual case and the best management forward.