



British Tinnitus Association - Registered Charity No: 1011145

The Temporomandibular Joint and Tinnitus

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What is it?

The temporomandibular joint (TMJ) or 'jaw joint' is a complex joint lying just in front of the ear. In one respect it is just a simple hinge joint between the jaw bone (mandible) and the base of the skull or temporal bone. However, the joint also contains a fibrous disc, which separates the joint into two compartments. This allows other movements such as side to side movements and a forward and backward gliding movement, as in pushing the jaw forwards and backwards. This allows the grinding movements required for chewing more solid foodstuffs. In addition, the muscles working on the mandible and therefore across the TMJ are amongst some of the most powerful in the body. This means that there are quite enormous forces acting through the TMJ. All this means that it is a joint at some risk of problems.

What can go wrong?

The TMJ can go wrong in many ways. The dysfunction may be acute (arthralgia) as a consequence of say, a pulled muscle or a dislocation of the fibrous disc, or a more chronic problem

as a result of arthritis or chronic teeth grinding at night, for example.

The symptoms that usually result from this are pain, which may even be felt as earache, clunking of the jaw, and limitation of movement, causing poor mouth opening (trismus). Other symptoms that may arise are swelling of the joint, headaches, neck pain and tinnitus.

TMJ Dysfunction and Tinnitus

The irritation associated with TMJ dysfunction can certainly aggravate any pre-existing tinnitus. This can be a direct result of the local irritation or by worsening any co-existing, or causing, sleep disturbance. TMJ dysfunction can in itself cause tinnitus as a consequence of local muscle spasm or an increase in local blood supply. Finally, as treatment often includes non-steroidal, anti-inflammatory medicines, tinnitus may be provoked or aggravated by the use of high doses of these medications.

In all but the last of these situations, the tinnitus should improve as the TMJ function improves with treatment. In the

last situation it should improve as the medical treatment is withdrawn.

Treatment

Treatment should be undertaken under the guidance of either a doctor or dentist. It usually involves a change to a soft diet and the use of anti-inflammatory medicines and pain-killers. In some case a bite-appliance may be made and fitted to alter the way in which the jaw works and therefore alters the stresses and loads on it. This can be

dispensed with when normal function is restored. In exceptional cases a maxillo-facial surgeon may have to have a look inside the joint (arthroscopy) and perform surgery with specially designed endoscopic instruments.

As a final rider it should be said that if you feel you have tinnitus that is made worse or caused by TMJ dysfunction, you should seek the advice of your doctor or dentist.

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This information is not a substitute for medical advice. You should always see your GP / medical professional

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