



The treatment of Temporomandibular dysfunction (TMD)

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The temporomandibular joint (TMJ) is the articulation between the temporal bone and the mandible. TMJ pain and dysfunction is estimated to have an incidence of up to 25% of the population with females being most affected. Temporomandibular dysfunction (TMD) encompasses a number of disorders that affect the TMJ, masticatory muscles and its associated structures.

Specific signs and symptoms of TMD include joint sounds, abnormal joint motion, mastication, muscle tenderness, restricted range of motion, pain at rest or during clenching and mastication and psychological factors. Accurately diagnosing and treating TMD can be a difficult task due to the multitude of signs and symptoms. Patients with TMD often have to endure multiple frequent referrals to GPs, Dentists and ENT Consultants before they receive an accurate diagnosis and effective treatment.

TMD can be extremely disabling both physically and psychologically for the patient. In most cases, the pain and dysfunction associated with TMJ disorders can be alleviated with conservative management, including the use of a bite-raising appliance (BRA), pharmaceuticals, Physiotherapy and Psychiatry, with very few requiring surgical intervention.

Initially, patients presenting with pain may be treated with analgesics with or without the inclusion of anti-inflammatories. Patients exhibiting clinical signs of bruxism (linea alba, tongue scalloping and wearing of the facets on the posterior molars) may benefit from a bespoke BRA. It is important to determine the predominant pain mechanism in order to facilitate the best treatment and often a multimodal approach is recommended.

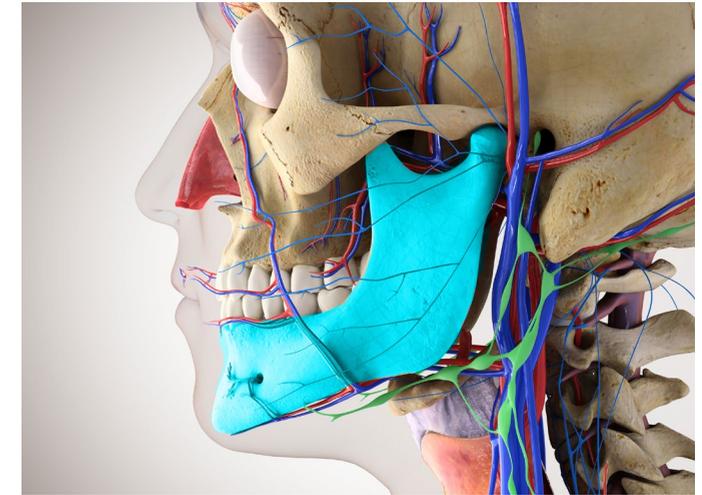
Physiotherapy is commonly used to manage TMD in combination with other therapeutic modalities. Physiotherapy aims to restore normal mandibular function by relieving musculoskeletal pain, restoring normal joint biomechanics and normal muscle balance.

A comprehensive Physiotherapy assessment is undertaken where a holistic approach is taken assessing not only the TMJ, but the whole neuromusculoskeletal system, as pain and dysfunction can often start or manifest in an area distal from the area of pain.

Following a comprehensive assessment, a diagnosis is made and a treatment plan is agreed in collaboration with the patient.

Physiotherapy management may include:

- Manual therapy and exercise therapy
- Acupuncture
- Electrotherapy
- Onward referral to a Maxillofacial Surgeon, Specialist Dentist or Prosthetist



Manual and exercise therapy

The principles aims of manual therapy and exercise therapy are to improve muscular coordination, relax tense muscles and improve strength. Manual therapy aims to restore the normal joint biomechanics and increase range of motion. Manual therapy is useful for patients with restricted range of motion and pain within the muscle of mastication.

Electrotherapy

Low level laser is the most evidenced electrotherapy modality used. The precise effects of low level laser therapy are unknown. The suggested effects include increased vascularisation as well as stimulated collagen production and fibroblast activity, photochemical effects, and improved microcirculation. Low level laser is useful for patients who cannot tolerate manual release of hypersensitivity within the muscle of mastication or cannot tolerate acupuncture.

Acupuncture

The precise mechanism underlying acupuncture remains unknown, but may include the release of endorphins, serotonin and acetylcholine within the central nervous system. Acupuncture is particularly beneficial for patients with myogenic pain attributed to hypersensitive areas of the muscle known as trigger points.

Physiotherapy in combination with other conservative modalities is an effective method of treating TMD. Patients with restricted range of motion, lack of strength and pain in the muscles of mastication are ideal patients to be referred to Physiotherapy. The exact cause of a person's TMJ disorder is often difficult to determine. Therefore if you are unsure whether a patient may be appropriate for Physiotherapy, please do not hesitate to contact us.