

The management of temporomandibular disorders:

a headache in general practice

INTRODUCTION

Temporomandibular disorder (TMD) is the common term used to describe a range of disorders affecting the temporomandibular joint (TMJ). Facial pain is a common symptom that patients present to their GP, and TMDs represent a significant proportion of the non-dental causes of this pain. These disorders can have a profound effect on a patient's quality of life.¹

TMDs have been classified into three subtypes by Dworkin *et al* and are listed in Box 1,² the most common of these being myofascial pain and dysfunction.³ TMD can range from a condition causing minor discomfort to one needing surgical replacement of the entire jaw joint.

DEMOGRAPHICS

Approximately 60–70% of the general population will experience some form of TMD in their lifetime, though only 5% of people with symptoms of TMD will actually seek treatment.^{1,3} TMD can occur in patients of any age; however, the most common time of presentation is between the ages of 20 to 40 years.¹ Males are equally as likely as females to experience symptoms but females have a higher reporting rate.^{1,4}

SYMPTOMS OF TMD

Patients who have TMD can present with a range of different symptoms. These include:

- diffuse pain — typically intermittent in nature and often reported in several areas of the head and neck;
- tenderness or pain in muscles of mastication;
- limited mouth opening and 'locking' of the jaw;
- painful teeth (wear facets may be noted on tooth surfaces); and
- clicking or crepitus sounds when mandibular joint is in function.

The most common site of TMD pain is

Box 1. Temporomandibular joint disorders

Myofascial pain and dysfunction

- Fibromyalgia
- Myositis
- Neuropathic pain
- Chronic pain syndrome

TMJ functional derangement

- Internal derangement — disc displacement
- Hypermobility disorders, for example, dislocations
- Hypomobility disorders, for example, ankylosis

TMJ degenerative/inflammatory joint disease

- Osteoarthritis
- Rheumatoid arthritis
- Psoriatic and juvenile arthritis

TMJ = temporomandibular joint.

located anterior to the tragus of the ear and extends down the border of the mandible and up to the temporal region. This distribution of pain is shown in Figure 1.

A thorough history of the patient's symptoms should be taken to aid diagnosis. A mental health and social history is essential when assessing facial pain, as depression and anxiety may increase pain severity and complicate management.

CLINICAL EXAMINATION

A full and complete extra-oral examination of the head and neck should be completed in any patient who presents with symptoms of TMD. This should include a neck and cranial nerve examination. First, the examining GP should begin with an inspection. They should stand in front of the patient and observe the opening and closing of the mouth. Any limited movements, facial asymmetry, or obvious deviation on jaw opening should be

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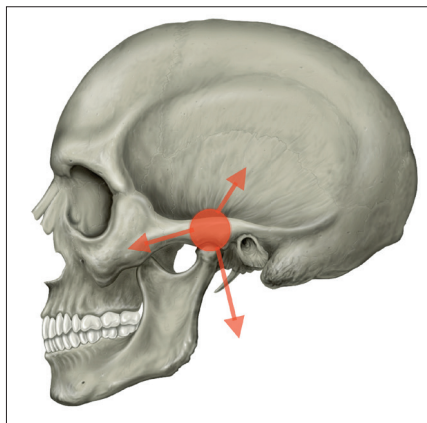


Figure 1. Highlighting the localised TMJ pain (circle) and the direction of diffuse pain seen in myofascial TMD (arrows). Credit: Patrick J. Lynch, medical illustrator; C. Carl Jaffe, MD, cardiologist. Licence: <https://creativecommons.org/licenses/by/2.5/legalcode>. TMD = temporomandibular disorder. TMJ = temporomandibular joint.

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Competing interests

The authors have declared no competing interests.

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noted. The GP should place their index and middle finger slightly anterior to the tragus of the ear and then ask the patient to slowly open their jaw. It should be possible to feel the condyle moving within the TMJ.

The next stage of the examination is palpation of the muscles of mastication. The temporalis and masseter muscles are the easiest to examine extra-orally. To do this, the patient should be asked to gently clench their teeth. If there is tenderness on palpation of the muscles during activation, this could suggest possible TMD. Any joint sounds or pain during any jaw movements including lateral excursions should be noted.

RED FLAGS

Durham *et al* list a number of red flags for orofacial pain, which can mimic TMDs.^{1,5} These include:

- previous history of malignancy — could indicate new primary, recurrence, or metastases;
- persistent or unexplained neck lump or cervical lymphadenopathy — may indicate a neoplastic, infective, or autoimmune cause;
- neurological symptoms, for example, headache or cranial nerve abnormalities with sensory or motor function changes — may indicate an intracranial cause, or malignancy affecting cranial nerve peripheral branches;
- facial asymmetry, facial swelling, or profound trismus — may indicate a neoplastic, infective, or inflammatory cause;
- recurrent epistaxis, purulent nasal discharge, persistent anosmia, or reduced hearing on the ipsilateral side — may indicate nasopharyngeal carcinoma;
- unexplained fever or weight loss — may indicate malignancy, immunosuppression, or other infective causes, for example, septic arthritis;
- new-onset unilateral headache or scalp tenderness, jaw claudication, and general malaise, if the person is >50 years of age — may indicate giant cell arteritis; and
- occlusal changes — may indicate neoplasia, rheumatoid arthritis, trauma, or bone growth around the temporomandibular joint, for example, acromegaly.

MANAGEMENT OPTIONS

The majority of patients who present with TMD should be encouraged to carry out early self-management to help control symptoms and limit functional impairment.⁶

There were recent guidelines published in 2013 by the Royal College of Surgeons (England) and also National Institute for Health and Care Excellence guidelines (2016) on the management of TMD in primary care.^{5,6}

Education

TMD can have a major impact on the quality of the life of the patient, especially where there is uncertainty over the diagnosis.⁴ It is important to reassure the patient of the benign nature of the condition.³ It has been documented that conservative therapy is effective in 68–95% of patients suffering from TMD.⁷

The following advice should be discussed with the patient:

- limiting mandibular function. A soft diet is recommended for patients with TMD for 7–14 days;
- avoid parafunctional activities, for example, chewing gum and nail biting;
- massaging the tender muscles and the use of warm flannels to ease muscular discomfort;
- lifestyle changes to reduce stress. Some patients have noted an improvement of symptoms following acupuncture treatment;⁷
- consider simple analgesia for short-term use (paracetamol and NSAIDs); and
- if symptoms persist consider onward referral to secondary care, that is, the oral and maxillofacial team.

Signposting

A referral to the patient's general dental practitioner should be considered.⁵ Dentists will provide an occlusal splint to protect the teeth if bruxism is suspected.

CONCLUSION

TMD is a common problem, with many patients presenting primarily to their GP. Reassuring patients that TMD is self-limiting and is benign in nature is extremely important. Simple first-line measures are the mainstay for treatment of TMDs. These include: education, home physiotherapeutic exercises, and simple analgesia. Liaising with the patient's general dental practitioner is strongly advised prior to a referral to the local oral and maxillofacial department.

Provenance

Freely submitted; externally peer reviewed.