Management of painful Temporomandibular disorder in adults: Ultra-brief guide

NHS England Getting It Right First Time (GIRFT) and Royal College of Surgeons' Faculty of Dental Surgery.

This ultra-brief guide provides a reference aid for practitioners to complement the comprehensive guideline and summary guideline documentation on managing painful Temporomandibular disorders (TMD). TMD are a group of common benign, largely non-progressive, musculoskeletal conditions affecting up to 1 in 15 of the UK population. TMD cause pain and or dysfunction of the TMJ/its structures (arthrogenous TMD), the muscles of mastication (myogenous TMD) or a combination of both. When treated early with simple reversible management techniques, most cases improve. The most effective first step of initial management is supported self-management involving education about good prognosis of TMD and appropriate analgesic use, self-exercise therapy, thermal therapy (modalities), self-massage therapy, dietary modifications, and changing any parafunctional behaviours.

This ultra-brief guide takes you through the **3Ds of TMD**: **detecting** it, **diagnosing** it, and **delivering self-management**.

1. **Detecting TMD:**

As TMD are the second most common cause of mouth and or face pain after 'toothache' it is sensible to screen a patient for TMD if they have pain you can't localise to a tooth and/or they present with some of the cardinal signs and symptoms of TMD (listed within table 1). To screen for and detect TMD, you can ask the patient to complete the three-question screener the 3Q/TMD here and at QR code adjacent.

2. Diagnosing TMD:

Following a positive 3Q/TMD screen and in routine (non-specialist) clinical practice, a diagnosis can be achieved using the simplest means possible. A video explaining a simplified examination/diagnosis is available here and at the QR code adjacent. This examination allows you to determine a myogenous, arthrogenous or combined origin for the TMD. Table 1 summarises the key features of these groups.

Table 1 – Key features/findings of myogenous and arthrogenous TMD groups (Combined origin group has signs and symptoms from both columns)

Myogenous	**Arthrogenous**
Pain at rest, with jaw movement or elicited by palpation of joint or muscles Myogenous pain might be felt in mouth, face, jaw or temple and in arthrogenous pain it would likely be felt inside the ear or in front of the ear	
Familiar pain† when palpating MOM	**Familiar pain**† when palpating or moving joint
+/- Restricted opening present at exam	+/- Restricted opening present at exam
	+/- Jaw closed lock (decreased mouth opening (≤10-15mm in last 30 days that is acutely painful in front of ear and may or may not have resolved by time of exam)
	+/- Joint noises (click, crackling, rustling in last 30 days)
	+/- Deviation in opening
Pain modified with jaw movement, function, or parafunction	

†*Familiar pain is a key finding. It is present when the palpation or action of a structure replicates some or all of the patient's primary complaint of facial or mouth pain.*

The likelihood of another pathology masquerading as TMD is low, but to help prevent a misdiagnosis, **always look and listen out for any red flags** (NICE CKS guidance). These include: previous history of cancer; lymphadenopathy; pyrexia; face or neck mass; occlusal changes; cramp-like pain

(claudication) in the tongue, jaw or temple with eyesight changes; unplanned weight loss; sensory or motor changes; profound or worsening trismus; unexplained oral ulceration or hoarse voice ≥3 weeks, persistent nasal drainage or bleeding. If these are present, follow standard referral practice to arrange an expeditious specialist opinion.

3. Delivering self-management:

Self-management is the essential first stage of TMD management and creates a solid foundation for other care that can be added to it. The adjunctive therapies that can be added to self-management are explained in the full/summary guidance and flowchart.

Explanation of TMD and its favourable prognosis with simple therapies is the critical initial step of self-management. There is a patient animation available here to help with this. There is then a further animation available here to explain self-management to patients.

Self-management's other core components address immediate symptoms and pain exacerbations: self-exercise therapy, thermal therapy, self-massage therapy, dietary and parafunctional behaviour modifications, and appropriate, time-limited analgesia use. The guideline development group have provided a free-to-use patient guidance document for self-management that you can typeset to your own practice's brand here. Evidence-based guidance for all of the other components below is discussed in videos available here (and via QR code adjacent):

- **Self-exercise therapy:** facilitates relaxation and rehabilitates masticatory muscles, supporting jaw function and pain reduction. Confidence to use the mandible normally reduces fear and anxiety, improving pain-related disabilities.
- **Thermal therapies:** local application of moist heat (warm flannel/covered hot water bottle or proprietary heat pack) or covered ice pack to affected structures daily supports relaxation, healing, and reduction of pain and or inflammation.
- **Self-massage therapy:** a routine of massage techniques twice daily is likely to provide symptomatic relief in the short and long term.
- **Dietary modification:** an inclusive diet containing all major food groups should be encouraged, in addition to ensuring adequate hydration with water. This can help protect against exacerbation of inflammation, and preparing the food in different ways can reduce its impact on painful muscles and joint structures. The patient advocacy agency the "Temporomandibular Joint Association" have produced a useful guide available here.
- **Behaviour modification:** parafunctional activities, e.g., nail-biting, chewing gum, clenching and grinding, if present in substantial intensity or volume, may be implicated as part of the complex multifactorial aetiology but are not a singular 'cause'. Exploring if an individual has any parafunctional activities and if so, suggesting strategies to change behaviour may positively influence TMD outcome.

Summary:

TMD are a commonly presenting group of conditions that are amenable to simple initial management steps that can be delivered in primary care. These simple initial steps have better outcomes when introduced early, but also form the foundation for any further management. Excluding red flags and making a provisional diagnosis of a TMD of myogenous, arthrogenous, or combination origin means self-management can be instituted early with very low likelihood of harm to the patient and a high likelihood of positive gain over a six-eight week period. If after six to eight weeks there is either no improvement or things start to worsen then an earlier specialist opinion should be sought.