

Temporomandibular Joint Dysfunction Treatments

Patient education

Supportive patient education is the recommended initial treatment for temporomandibular joint dysfunction (TMD). This includes educating the patient on proper jaw and head posture, avoiding habits that strain the jaw such as gum chewing or nail biting, stress management techniques, and self-massage exercises to relax the muscles in the jaw. It is important for patients to understand that TMD can be a chronic condition and requires long-term management.

Adjunctive measures

Jaw rest, a soft diet, moist warm compresses, and passive stretching exercises are also commonly advised to alleviate TMD symptoms. Jaw rest can involve avoiding excessive talking or chewing and using a soft food diet while the joint is healing. Moist warm compresses can help relax muscles and reduce pain.

Passive stretching exercises, such as gently opening and closing the mouth, can help improve the range of motion in the jaw.

TMJ immobilization

This option has shown no benefit and may worsen symptoms as a result of muscle contractures, muscle fatigue, and reduced synovial fluid production.

Physical therapy

There is evidence—albeit weak—that supports physical therapy for improving symptoms associated with TMD. Techniques may be active or passive (e.g., scissor opening with fingers, use of medical devices), with the goal of improving muscle strength, coordination, relaxation, and range of motion.

Specialized physical therapy options such as ultrasound, iontophoresis, electrotherapy, or low-level laser therapy have been used in the management of TMD, despite the lack of evidence to support their use. Treatment of underlying comorbid conditions results in greater likelihood of success in the management of TMD.

Acupuncture

Acupuncture is increasingly used to treat myofascial TMD. Sessions typically last 15 to 30 minutes, and the mean number of sessions is six to eight.

Biofeedback

Patients should be counseled on behavior modifications such as stress reduction, sleep hygiene, elimination of parafunctional habits (e.g., teeth grinding, pencil or ice chewing, teeth clenching), and avoidance of extreme mandibular movement (e.g., excessive opening during yawning, tooth brushing, and flossing).

Pharmacologic management

Pharmacologic treatments for TMD are largely based on expert opinion. Several classes of medication are used to treat the underlying pain associated with TMD.

A Cochrane review evaluating nonsteroidal anti-inflammatory drugs (NSAIDs; including salicylates and cyclooxygenase inhibitors), benzodiazepines, anti-epileptic agents, and muscle relaxants initially included 2,285 studies, 11 of which were included in the qualitative synthesis (Mujakperuo, et. al, 2010.) The authors found insufficient evidence to support or refute any drug's effectiveness for treating TMD.

Occlusal splints and adjustments

Occlusal splints are thought to alleviate or prevent degenerative forces on the TMJ, articular disk, and dentition. These devices may benefit a select population of patients with severe bruxism and nocturnal clenching.

Dental consultation should be obtained to determine the optimal occlusal device. Occlusal adjustments (i.e., grinding enamel surfaces to improve dentition) have no benefit in the management or prevention of TMD.

Referral

Referral to an oral and maxillofacial surgeon is recommended if the patient has a history of trauma or fracture to the TMJ complex, severe pain and dysfunction from internal derangement that does not respond to conservative measures or pain with no identifiable source that persists for more than three to six months.

Surgery

Surgery is rarely required for the treatment of TMD and is usually reserved for the correction of anatomic or articular abnormalities. Surgical options include:

- **Arthrocentesis:** A procedure that involves using a needle to withdraw fluid from a joint space for diagnostic or therapeutic purposes.
- **Arthroscopy:** A minimally invasive surgical procedure that allows doctors to visualize, diagnose, and treat problems inside a joint using a small camera called an arthroscope.
- **Discectomy:** A surgical procedure to remove a herniated or damaged disk in the spine, relieving pressure on spinal nerves.
- **Condylotomy:** A surgical procedure that involves cutting through the condyle (the rounded end of a bone) to relieve pain or restore function in the jaw joint (temporomandibular joint).
- **Total joint replacement:** A surgical procedure where a damaged joint is replaced with a prosthetic implant, commonly performed on hips and knees to relieve pain and improve mobility.

References

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