

What Are Temporomandibular Disorders (TMD)?

“A musculoskeletal disorder of the masticatory system that affects more than 25% of the general population 2”

- Signs and symptoms include: local pain in the temporomandibular joint (TMJ) and/or masticatory muscles, limited mouth movements, TMJ sounds, headaches, and ear pain²
- 70% of patients with TMD have associated neck pain ^{2,3}
- TMD rank second only to low back pain in the United States as a prevalent musculoskeletal problem, with treatment costing an average of four billion dollars annually ³

Physical Therapy: A Conservative Approach to Treating TMD

Causes include:

- Malocclusion
- Stress
- Head/neck trauma
- Poor head/neck posture
- Bad habits such as teeth clenching and grinding

Other associated factors include widespread pain, poor sleep, and depression.

TMD Classification

Disorders of the masticatory muscles: myalgia, myofascial pain, contracture, myospasm

Joint disorders: disc displacement with or without reduction, hypermobility, inflammation, degenerative disorders (osteoarthritis, osteoarthrosis)



Physical therapy for TMD: An Educational Guide

“An interdisciplinary approach between dentists and physical therapists has been shown to be more effective for the treatment of TMD than dentistry alone ¹”

The importance of Physical Therapy for treatment of TMDs

- Physical therapy has been shown to be one of the most effective conservative treatments for TMD ⁵
- Physical therapists identify the components of the musculoskeletal system that contribute to the symptoms and functional limitations of each individual patient



Evidence shows that manual therapy, exercise, and postural re-education are effective treatments to reduce symptoms of TMD ⁴

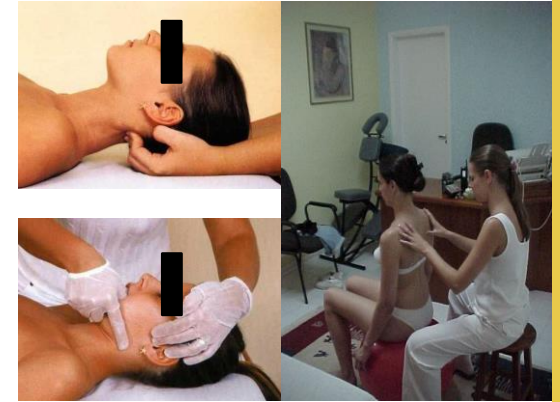
Treatment Options Include:

- Relaxation of the masticatory muscles including intra-oral massage
- Jaw exercises
- Proprioceptive Neuromuscular Facilitation
- Manual therapy including joint mobilizations
- Re-education of masticatory muscles for coordination, proprioception and strengthening of deep neck flexors and scapular muscles, and mobilizations
- Sleeping positions and re-education

Patient Education

Patients should be aware of their condition and related factors

- Anatomy and pathology of the condition involved
- Aggravating factors such as oral behavior (ie. grinding and clenching), head and neck postural alterations, and stress
- Activities to be avoided
- Participation in treatment including self-home exercises
- Ergonomic aspects



Selected References:

1. De Toledo EG, Silva DP, De Toledo. The interrelationship between dentistry and physiotherapy in the treatment of temporomandibular disorders. *The journal of contemporary dental practice*. 2012;13(5):579.
2. Kisner C, Colby LA. Therapeutic Exercise, Foundations and Techniques. F A Davis Company; 2007.
3. Olivo SA, Bravo J, Magee DJ, Thie NM, Major PW, Flores-Mir C. The association between head and cervical posture and temporomandibular disorders: a systematic review. *J Orofac Pain*. 2006;20(1):9-23.
4. McNeely ML, Olivo SA, Magee DJ. A systematic review of the effectiveness of physical therapy interventions for temporomandibular disorders.(research report). *Phys Ther*. 2006;86(5):710.
5. Kraus S. Temporomandibular Disorders, Head and Orofacial Pain: Cervical Spine Considerations. *Dent Clin North Am*. 2007 Jan;51(1):161-93.