

"Chronic TMD patients, specifically those with severe symptomatology, showed a reorganized activity, mainly resulting in worse functional performances."

Mapelli, Andrea & Machado, Barbara & Giglio, Lucia & Sforza, Chiarella & de Felício, Cláudia Maria. (2016). Reorganization of muscle activity in patients with chronic temporomandibular disorders. Archives of Oral Biology. 72. 10.1016/j.archoralbio.2016.08.022.

"TMD patients showed more asymmetry between right and left muscle pairs, and more unbalanced contractile activities of contralateral masseter and temporal muscles ($p < 0.05$, t-test), worse orofacial myofunction status and higher TMD severity scores ($p < 0.05$, Mann-Whitney test) than healthy subjects. Spearman coefficient revealed significant correlations between EMG indices, orofacial myofunctional status and TMD severity ($p < 0.05$). In conclusion, these methods will provide useful information for TMD diagnosis and future therapeutic planning."

De Felício CM, Ferreira CL, Medeiros AP, Da Silva MA, Tartaglia GM, Sforza C. Electromyographic indices, orofacial myofunctional status and temporomandibular disorders severity: A correlation study. Journal of electromyography and kinesiology: official journal of the International Society of Electrophysiological Kinesiology 22(2):266-72 · December 2011

"OMT <Orofacial Myofunctional Therapy> had the following positive effects in treated patients: (a) a significant reduction of pain sensitivity to palpation of all muscles studied but not for the TMJs; (b) increased measures of mandibular range of motion; (c) reduced Helkimo's Di and Ai scores, (d) reduced frequency and severity of signs and symptoms; and (e) increased scores for orofacial myofunctional conditions."

De Felício CM, Melchior MO, Da Silva MA. (2010). Effects of Orofacial Myofunctional Therapy on Temporomandibular Disorders. The Journal of Craniomandibular Practice. Oct. 28(4): 249-259.

"The presence of TMD shows reduction in mandibular opening and retrusion ranges and prevalence of unilateral deviation movements during speech."

Bianchini EM, Paiva G, de Andrade CR. Mandibular movement patterns during speech in subjects with temporomandibular disorders and in asymptomatic individuals. Cranio. 2008 Jan; 26(1):50-8.

"We found that patients with OSAS <Obstructive Sleep Apnea Syndrome> have a high risk of SB <Sleep Bruxism>. In particular, this is the first report relating phasic-type SB to obstructive apnea events. This relationship suggests that improvement in OSAS might prevent exacerbations of SB."

Hosoya H, Kitaura H, Hashimoto T, Ito M, Kinbara M, Deguchi T, Irokawa T, Ohisa N, Ogawa H, Takano Yamamoto T. Relationship between sleep bruxism and sleep respiratory events in patients with obstructive sleep apnea syndrome. Sleep Breath. 2014 Feb 14. [Epub ahead of print]

"Our results suggest that the performance of repeated TCTs <Tooth Clenching Tasks> can trigger neuroplastic changes in the corticomotor control of the jaw-closing muscles and that such neuroplastic changes may contribute to the mechanism underlying the clinical manifestations of tooth clenching."

Iida T, Komiyama O, Obara R, Baad-Hansen L, Kawara M, Svensson P. Repeated clenching causes plasticity in corticomotor control of jaw muscles. Eur J Oral Sci. 2014 Feb;122(1):42-8. doi: 10.1111/eos.12101. Epub 2013 Nov 20.

“The main sleep and oral health issues that are covered in this review are obstructive sleep apnea, chronic mouth breathing, sleep-related gastroesophageal reflux, and sleep bruxism. In addition, edentulism and its impact on sleep disorders are discussed. Improving sleep quality and sleep characteristics, oral health, and oral function involves both pathophysiology and disease management. The multiple interactions between oral health and sleep underscore the need for an interdisciplinary clinical team to manage oral health-related sleep disorders that are commonly seen in dental practice.”

Huynh N1, Emami E, Helman J, Chervin R. Interactions between sleep disorders and oral diseases. Oral Dis. 2014 Apr;20(3):236-45. doi: 10.1111/odi.12152. Epub 2013 Jul 2.

“Findings demonstrate an association between emotional factors such as anxiety and bruxism, resulting in compromised masticatory function.”

Alves AC1, Alchieri JC, Barbosa GA. Bruxism. Masticatory implications and anxiety. Acta Odontol Latinoam. 2013;26(1):15-22.

"Conclusion Patients with chronic TMD showed temporal prolongation and changes in the relative activity of the muscles during the swallowing tasks. Clinical relevance The present results contribute additional evidence regarding the reorganization of muscle activity in patients with chronic TMD." Fassicollo, Carlos & Machado, Barbara & Garcia, Denny & de Felício, Cláudia Maria. (2018). Swallowing changes related to chronic temporomandibular disorders. Clinical Oral Investigations. 10.1007/s00784-018-2760-z.