



Dr. Andrew Willoughby, DMD, LVIF, FICCMO.*
Neuromuscular Dentistry

ASK THE DENTIST!

Treating Headaches and a Bad Bite

Question: For many years now I've been suffering from daily headaches. My Family Doctor's only solution has been pain killers and muscle relaxants! I've seen several medical specialists but they have been of little help. I know my bite is off because my jaws ache when I chew and click when I open but, how can my teeth be causing me this constant headache pain?

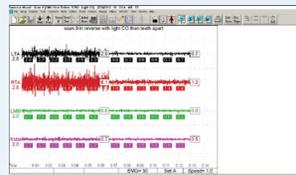
Answer: 90% of all headaches are muscular in origin and Neuromuscular Dentists focus on the relationship between the Temporomandibular Joint (TMJ), the muscles, nerves and bony structures of the head and neck and how this system is affected by the patients dental occlusion ("bite"). When jaw joint, muscle and related head and neck problems are associated with a bad bite, Neuromuscular Dentists refer to it as Cranio-Mandibular Dysfunction ("CMD"). Signs and symptoms of CMD include; **cluster headaches; migraines; clicking and popping jaw joint sounds; limited opening; deviations on opening; neck or shoulder pain; worn or missing teeth; sore tired jaw muscles; tingling in the thumb and fore-fingers; tinnitus; itchy plugged ears; vertigo; speech and or problems swallowing.**

Patients suffering from longstanding headaches and TMJ symptoms are usually very skeptical until we complete our examination because NM Dentists employ a zero based medical model whereby CMD symptoms are compared to objective, reproduceable computer derived data. Unlike traditional methods for treating CMD, (bite splints and muscle relaxants), Neuromuscular Dentists recognize that the muscles of the head and neck must be in a state of Physiologic Rest or relaxation – if the muscles are in a state of chronic contraction the patients bite and jaw-joint relationship cannot be optimized. This is also important when fitting a SomnoDent appliance for patients with Sleep Apnea. NM Dentists objectively evaluate muscle strain and activity using EMG leads and relax jaw and neck muscles using ultra low frequency Transcutaneous Electrical Neural Stimulation (TENS). **This type of analytical diagnostic information is preferable to subjectively quantifying pain and discomfort solely through manual muscle palpation.**

NMD's employ digital Joint Sonography and sophisticated realtime computer diagnostics and jaw tracking equipment called "K7" Evaluation system to accurately locate the jaw in a precise position that supports optimal health for the entire body. The K7 system allows

a NM Dentist to develop base line data and evaluate tangible improvements in clinical outcomes on a predictable and repeatable basis. This objective data can also be readily shared and interpreted by other healthcare professionals.

Case Study: 37 year old Caucasian female presented with a 20+year history of chronic migraine type headaches (3-4 weekly) and was being treated at a Headache Clinic in the lower mainland with a combination of Anti-depressants, NSAID's, Triptans, and Botox but, her migraines were not improving. In late January, 2012, patient received a complete NM workup utilizing K7 equipment, and a CT scan of her TM Joints. The result of her zero based clinical exam was a diagnosis of CMD. The patients malocclusion was causing severe muscle spasm in her Temporalis muscles leading to a torqued and retruded mandibular position causing internal derangement of her disco-condylar complex. Treatment involved fabrication, insertion and adjustment (with TENS) of a removable lower NM orthotic to reposition her mandible and allow for disk recapture. Within the first few days of wearing the NM orthotic, the patient's migraine headaches had reduced in both frequency and intensity. Within 3 months they had almost completely resolved, allowing the patient to successfully titrate off her meds. Physical therapy was implemented throughout this period and all postural manipulations were made while wearing the NM orthotic. Patient is now finishing Invisalign orthodontic therapy and the correction of her malocclusion is nearly completed. Patient remains med free and pain free as confirmed by low EMG rest and adjusted jaw trajectory scans.



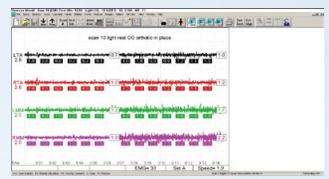
High EMG #s from bad bite



CT Scan of Retruded Condyle



NM Orthotic in place



Low EMG'S from NM Orthotic

*Dr. Andrew Willoughby, holds two Postgraduate Fellowships in Neuromuscular Dentistry, is the named Inventor of 5 U.S. Patents and has extensive training in the treatment of Cranio-Mandibular Dysfunction and Obstructive Sleep Apnea/Snoring.

Dr. Andrew Willoughby DMD, LVIF, FICCMO
NEUROMUSCULAR TMJ & HEADACHE RELIEF

Centre for Neuromuscular Dentistry
12905 16th Avenue, White Rock, B.C. (Ocean Park)



www.drandrewwilloughby.com
[Facebook.com/DrAndrewWilloughby](https://www.facebook.com/DrAndrewWilloughby)

Tel: 604.541.1800