reduction in the inhibitory controls while sleeping makes forces during nocturnal bruxism three to four times greater than during waking hours, forces that potentially exceed the normal capacity of the system. Sleep bruxism may eventually lead to many signs and symptoms of dysfunction, including pain, and/or structural changes to the masticatory system. It has been demonstrated that the metabolic activity of the brain significantly decreases after 24 hours of sustained wakefulness. A number of sleep-dependent activities have been recognized, leading to a better understanding of how sleep deprivation or interruption may result in a decrease in body temperature, a decrease in immune system function (T-cells and lymphocyte function), a decrease in the release of growth hormone (necessary for repair and regeneration of damaged tissues) and a reduction in serotonin (neurotransmitters involved in pain modulation and mood) in the central nervous system. A thorough sleep history must be obtained in all orofacial pain patients due to the significant implications of disrupted sleep and nocturnal bruxism.

Acceleration-deceleration injury (whiplash) with no direct blow to the face can cause symptoms consistent with TMD. However, a direct causal relationship between jaw symptoms and indirect trauma has yet to be established. Studies have failed to demonstrate a jaw movement to cause mandibular strain in all flexion-extension type of injury.

The TMD examination requires a comprehensive approach understanding all potential factors. The physical examination should consist of a review of systems including not only a patient’s actual chief concern(s), but also the chronological history, history of present illness(es), medical history, dental history, and personal history (social, family), general inspection of the head, neck and cervical spine, neurovascular evaluation, comprehensive orthopedic evaluation of the TM joints, evaluation and palpation of the masticatory and cervical muscles, gross screening of the cranial nerves, and intraoral evaluation of hard and soft tissues including occlusal analysis.

Basic assessment of all TMD patients should include behavioral and psychological screening by the dentist during the history-taking process. The history should include questions to evaluate behavioral, social, emotional and cognitive factors that may initiate, sustain or result from the patient’s condition. Consideration to relevant factors such as oral habits, signs of depression, anxiety, stressful life events, lifestyle, secondary gain, and overuse of healthcare should also be given. Imaging of the TM joint and orofacial structures may be necessary to rule out structural disorders, and must be prescribed primarily when the clinical examination suggests some form of disorder.

Heretofore clinical practice in the area of TMD has been based on anecdotal reporting. Individual and group interpretation of the limited scientific evidence has led to a marked variation in the philosophy of practice in this complex area. Empiricism and rationalism has at times resulted in disregard for the valid scientific evidence base that does exist. With the recent explosion of knowledge regarding pain mechanisms and pathways, the effect of pain on quality of life, and an enhanced appreciation for the multifactorial nature of TMD, today’s dentist can better apply science to the art of practicing evidence-based dentistry. Evidence-based dentistry is the conscientious, explicit and judicious use of current scientific evidence to the art of practicing evidence-based dentistry. Evidence-based dentistry is the conscientious, explicit and judicious use of current scientific evidence to the art of practicing evidence-based dentistry. Evidence-based dentistry is the conscientious, explicit and judicious use of current scientific evidence to the art of practicing evidence-based dentistry.

Albert Einstein said, “Science without religion is lame, religion without science is blind.”