

ARE YOU HELPING OR HURTING YOUR PATIENTS?

BY **LOUIS MALCMACHER, DDS, MAGD**

Many clinicians have their favorite bruxism appliance that they use in most cases. We give our favorite bruxism appliance to patients with the hope (and prayer) that they will get better. But let's be honest; when they get better, it's more luck than skill. If they don't get better, we adjust the appliance until they or we give up and tell them that the appliance will not solve their problems.



Every time you place an appliance in the mouth, it affects much more than you probably realize. That appliance will affect the TM joint and all the masticatory and head-and-neck muscles. Even more importantly, everything you put in the mouth will affect a patient's airway, either positively or negatively. This may come as a big surprise to dentists, but it really is just common sense.

It has been my experience in lecturing to thousands of dentists every year that most of them do not realize that a patient's airway should be their concern. After all, we're just trying to control the patient's bruxism by making a "bruxism appliance," and are therefore not responsible for the patient's airway. That's like saying that when we place a crown on the upper molars we're not responsible for the lower molars. Of course we are; it's all interconnected and it's our responsibility.

This connection is the main reason that dentists should be trained in the areas of bruxism therapy and dental sleep medicine, before they make another "bruxism" appliance. Obstructive sleep apnea is a medical condition that affects approximately 40 million people in the U.S., and 90% of that is undiagnosed. Simply put, obstructive sleep apnea (OSA) is a condition where the patient stops breathing at night for periods of 10 seconds or more because of an anatomical obstruction of the airway. This can happen dozens or hundreds of times a night. OSA is comorbid and dramatically increases the incidence and severity of diabetes, hypertension, stroke, and heart attack.

Bruxism is the mechanism the body uses to advance the mandible forward to open the airway so a person can breathe. The evidence shows that sleep bruxism is much

more often the result of an airway issue than an occlusal issue. Now imagine that you make the patient a "bruxism" appliance and he or she has OSA. The appliance may be pushing the patient's mandible backward, thereby closing the airway even more. You have just made their obstructive sleep apnea worse (effectively choking the patient), and at the same time increased their sleep bruxism.

Dentists should be routinely testing their patients for bruxism and OSA, or at the very least, they should test before they make any patient an appliance. This is now possible with a cost-effective home bruxism and sleep monitor (STATDDS) that can quantify the patient's Bruxism Episodes Index (BEI) and Apnea-Hypopnea Index (AHI). It scores how many episodes of bruxism and apnea a patient has every sleep hour. If you don't know what these terms mean, you should become trained immediately! In this way, we can have objective evidence and the data necessary to see how often and at what intensity the bruxism occurs. We can also see if the bruxism is related to OSA or if it is primary bruxism. This information is essential and now considered medically necessary before we put anything into the patient's mouth that can affect their airway.

Training is essential in the areas of orofacial pain, dental and facial esthetics, dental sleep medicine, and oral appliances for bruxism therapy before a dentist makes another "bruxism" appliance. Successful restorative, bruxism, and orofacial pain treatment has entered a new era with the use of cost-effective qualitative testing, BOTOX, and the relationship of oral appliances and OSA.

It's time for dentistry to catch up with medicine in its ability to objectively measure and use data to help diagnose and more effectively treatment plan patients for the best therapeutic pain and restorative outcomes. **DE**

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