

AADSM | Sleep Lab Magazine

The five factors of adherence to oral appliance therapy and how to manage them

By: Dr. Kevin Postol

Oral appliance therapy (OAT) is a proven, effective treatment for obstructive sleep apnea (OSA), but, like CPAP, it is only effective when it is used. This is why the American Academy of Dental Sleep Medicine (AADSM) recommends that patients sleep a minimum of seven (7) hours per night and wear the appliance for the duration of their sleep every night and defines compliance as the appliance being worn for a minimum of $\geq 80\%$ per night, starting when the OA is placed in the mouth and ending when the OA is removed from the mouth, ≥ 5 nights per week¹.

To achieve OAT compliance, it's important to consider the real and perceived barriers and our role in helping our patients overcome them. Based on what I've seen in my practice, here are some reasons patients may become lax on using their oral appliance and how I, as an ABDASM Diplomate and AADSM Qualified Dentist, address them:

1. Bite changes
2. Headaches and mouth sores
3. Excessive dry mouth
4. Overproduction of saliva
5. Jaw pain or discomfort
6. Device isn't working as intended

While educating patients about the potential health consequences of non-compliance is certainly important, I find offering personalized solutions to be much more effective. To help my patients overcome their compliance barriers, here is the advice and information I share:

1. Bite changes. Oral appliances work by moving the jaw forward, so it's not uncommon for patients to experience a strange bite sensation upon removing their device. This is especially true for those who have had previous orthodontic work. While the feeling is foreign, it's important to explain this is not reason for concern. In reality, our teeth only touch for approximately 16 minutes each day. The only time our teeth routinely touch is when we swallow, so a slight bite change (or just the feeling of one) is not something to be overly concerned about. For those patients who continue to struggle, I incorporate morning jaw stretches or use alignment tools. The AADSM video titled 'Sleep Apnea Oral Appliance Jaw Exercises' on their YouTube channel demonstrates morning jaw stretches. You can access it directly via this link: <https://www.youtube.com/watch?v=XBoe7rcQRLA>.
2. Headaches and mouth sores. While a rare side effect, headaches are usually the result of patients clenching or grinding their teeth. To overcome this, I'll

often add a little piece of material on the front of the appliance that prevents the patient from putting pressure on the back teeth. Although mouth sores caused by an oral appliance is extremely rare, it can be another concern by some patients. If the patient is allergic to the oral appliance we will change the type of material we are using. Mouth sores caused by the bulk of the appliance sometimes can be eliminated by altering the design of the oral appliance. In my experience, when a patient has an issue with mouth sores, it's generally because the device is a bit bulky and rubbing on the inside of the cheek. Because I select and customize an appliance based on each patient's mouth and tooth structure, this is uncommon, but if this happens, we can alter the design of the oral appliance..

3. Excessive dry mouth. No one enjoys waking up feeling as if they slept with a cotton ball in their mouth. One question I ask patients who experience excessive dry mouth is if this occurs all the time, which would indicate this being caused by medications, or only when using their oral appliance. If it's the latter, I will find out if they are a nose or mouth breather. If their lips are falling open and they can breathe through their nose I suggest lip tape. If they are using an oral appliance with elastic hooks I make sure they are using them with elastics to keep their teeth together. There are several over-the-counter remedies recommended for dry mouth which can be found online or at local pharmacies. . Proper hydration and coating lips with a moisturizing balm such as vaseline before bedtime can also help.
4. Overproduction of saliva. The opposite of dry mouth can also occur, leaving pools of drool on pillows and bedsheets. If this becomes a problem, I recommend putting a towel on the pillow. In these instances, I check to ensure patients are able to swallow normally while wearing their oral appliance. If so, this side effect typically resolves itself within a few weeks. If not, an adjustment might be necessary. On a rare occasion we may need to decrease the vertical of the patient's oral appliance or decrease the bulk of the material to allow more room for their tongue.
5. Jaw pain or discomfort. Many patients experience jaw pain when they first begin using an oral appliance. This is generally mild to moderate and almost always short-lived. It's important for me to help patients find a way past the initial "breaking in" period and encourage them to persevere. Suggesting over-the-counter pain relief medications before bedtime and/or upon waking is one option. I've also recommended patients wear their device for an hour or two while awake and watching TV or reading. Starting with shorter intervals (wearing for two to three hours at a time) and slowly increasing to a full night can also help. Of course, if the pain is severe and persists, there's a good chance something isn't right and the patient might need to be re-fitted.
6. Perception that the oral appliance is not effectively addressing their snoring issues. This perception can arise from a variety of factors, such as unrealistic expectations, improper usage, or inadequate follow-up care. It's essential as AADSM Qualified Dentists to address these concerns proactively by providing thorough education and support throughout the treatment process. This

includes proper fitting of the appliance, clear instructions on usage and maintenance, and regular follow-up appointments to monitor progress and make any necessary adjustments.

Additionally, it's crucial for individuals undergoing oral appliance therapy to understand that results may not be immediate and that patience is key. Snoring can be caused by various underlying factors, and it may take time for the body to adjust to the appliance and for noticeable improvements to occur. Despite the challenges patients may face, personalized solutions can significantly improve compliance. AADSM Qualified Dentists are trained to address the reasons that may be preventing a patient from using their [oral appliance](#). During follow-up care, AADSM Qualified Dentists evaluate compliance. It is our responsibility to not only educate patients about the consequences of non-compliance, but also provide tailored strategies to address individual barriers. If it becomes evident that the patient is still non-compliant after addressing individual barriers, patients are referred to their medical provider to discuss alternate therapies².

By addressing compliance therapies and moving patients to alternate therapies when necessary, we make progress towards optimal patient adherence, thereby maximizing the effectiveness of their treatment and improving overall health outcomes.

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References

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2. Levine M, Cantwell M, Postol K, Schwartz D. Dental sleep medicine standards for screening, treating, and management of sleep-related breathing disorders in adults using oral appliance therapy. *J Dent Sleep Med*. 2022;9(4)