

## **PRINT SCRIPT-Have Sleep Apnea? A mouth guard might be all you need**

Anyone with sleep apnea knows schlepping a CPAP machine onto a plane is never fun. The only consolation is that it's a medical device so it doesn't count as a carry-on.

But there is an alternative for some patients with mild to moderate cases of [sleep apnea](#) – a condition that affects an estimated 22 million Americans. It's characterized by brief interruptions in breathing during sleep, and it can lead to a variety of health issues including high blood pressure, heart disease, liver dysfunction and Type 2 diabetes.

Kaninika Verma, MD, clinical director of Sleep Medicine for OSF HealthCare, says sleep apnea can be mild, moderate or severe based, on the number of breathing lapses within one minute. For those with mild or moderate cases, a mouth guard might be a good alternative to a CPAP (continuous positive airway pressure) machine, which can be noisy, uncomfortable and difficult to use.

A CPAP machine raises air pressure in the throat, so during sleep, the airway stays open. A mouth guard, created by a dentist, can have the same effect by forcing the lower jaw forward.

Dr. Verma explains: "So it actually opens up the back of the airway more to see if it can stay open, even when the airway is collapsing."

A few adjustments may be needed for comfort and to make sure the mouth guard is working the way it should.

"Once the dentist fits the mouthpiece and makes the adjustment, we just do another sleep study with the mouthpiece to document the treatment. So of course, once the sleep study is done (and it's determined) 'Hey you're doing good,' then every time the patient sleeps they'll have to wear that mouthpiece," Dr. Verma says.

In [a study](#) that looked at 349 patients using a mouth guard, a majority needed adjustments over a two- to four-week period. That study also found two-thirds of the patients reported the mouth guard was comfortable and effective in correcting their dysfunctional breathing.

Among OSF HealthCare patients, Dr. Verma says about 5% use a mouth guard, or what's also called an oral appliance. In some cases, pilots or truckers with sleep apnea have to provide proof they are successfully being treated. While a CPAP machine can collect data on when and how long it has been used, Dr. Verma says technology for mouth guards hasn't evolved to a reliable level.

"On a mouthpiece, there's really no way of following compliance, meaning if you're using it or not. There has been some headway into getting some of these mouthpieces to document use, but it's not been very robust or been used a lot with a mouth guard."

The other challenge with using a mouth guard can be recognizing when it is no longer working. Dr. Verma says when that happens, patients typically report feeling tired during the day. Another sleep study can confirm if that's connected to breathing issues during sleep. In some cases, the mouthpiece is no longer the best line of defense.

"So a lot of them have gone back on CPAP. Or some of them, we've said, 'No, your mouthpiece is working. Let's look at something else and work with your primary care physicians or other doctors to see why you're so tired during the day.'"

For some people, surgery is the best option. A new outpatient procedure that involves an implant that can be activated upon sleep is also available for patients who meet certain criteria.

If you're having trouble falling asleep or staying asleep, Dr. Verma says it's important to get evaluated to rule out breathing issues, which can lead to serious health complications. Sleep studies can be done overnight in a lab, but for less concerning issues, a home study could be an option.