

## Clinicians are Increasingly Viewing Oral Appliances as Valid Alternatives to CPAP, and not a Threat

Our Editor spoke with Jamison R. Spencer, DMD, MS of the Craniofacial Pain Center, Boise, ID about Oral Appliance Therapy.

### CPAP and Oral Appliances

Can CPAP and oral appliances peacefully coexist in the ever-expanding sleep therapy world? While turf wars among vested interests have occasionally overshadowed patient needs, Jamison R. Spencer, DMD, MS, says those days are largely over. "Although long term CPAP compliance rates vary in the literature, it is recognized that approximately 20 to 40% of patients eventually give up on using CPAP," says Spencer, president-elect of the American Academy of Craniofacial Pain. "Dentists are here as part of the team. I believe that CPAP is the best therapy for many patients, but oral appliances are there for those who can't tolerate CPAP or for whom CPAP is not indicated."

Unlike the vast majority of dentists, Spencer entered a practice limited to the treatment of temporomandibular disorders (TMD) since the first day he started practicing. He says dental sleep medicine is a natural extension of treating TMD, and dentists are uniquely suited to the task. "The literature shows that oral appliances are effective," says Spencer, who heads the Craniofacial Pain Centers, with locations in Boise and Denver. "Oral appliances have had a bad reputation for years, and that has been mostly due to incorrect usage and a lack of education. Sometimes well intentioned dentists have tried to treat patients with no training regarding what to do, and if physicians have a few bad patient outcomes, it colors their perception or oral appliance therapy in general."

### Treating OSA

For the primary care physicians and sleep specialists he works with, oral appliances are properly viewed as another viable option in the battle against obstructive sleep apnea. If family doctors are too enthusiastic about oral appliances, Spencer is quick to point out that a full sleep study is the best way to go, as is giving CPAP a try. "If patients are using CPAP and doing well, I want them to stay on it," says Spencer. "For patients who have tried CPAP, the idea of wearing something in their mouth is not as objectionable. An oral appliance compared to CPAP is a walk in the park. An oral appliance compared to nothing is a different story. Patients who have tried and failed CPAP tend to be much more compliant with oral appliance therapy."

### Measuring Oral Appliance Efficacy with BRAEBONs MediByte

One of the problems with oral appliance therapy is that unlike CPAP oral appliances have to be adjusted over time typically based on subjective patient reports of reduced snoring or feeling more rested. In order to objectively measure the efficacy of the oral appliance therapy Spencer uses a system called the MediByte, a home sleep testing device from BRAEBON Medical of Kanata, Ontario. Using the MediByte allows Spencer to objectively measure if the oral appliance is helping before he sends patients

back to the physician for a possible follow-up polysomnogram (PSG) with titration of the oral appliance in the sleep lab. Spencer does not use the MediByte to screen patients, since nearly all those he treats have already had full sleep studies, and been found to be CPAP intolerant. After the patient has worn the oral appliance for 4 to 6 weeks and initial adjustments to improve comfort and efficacy have been made the patient will be sent home with the MediByte unit. The unit allows for 2 nights of study to be recorded. Spencer has his patients wear the oral appliance on the first night and without the oral appliance on the second night so that the two studies can be compared. In some cases additional studies may be performed to compare one jaw position to another or to compare different styles of oral appliances. "I feel that it is important to know that the appliance is having a positive effect before the patient is referred back to the sleep lab. We want their night in the sleep lab to be spent fine tuning the appliance position, not determining whether or not it is working," says Spencer. The MediByte unit is also one of the least expensive to use, about \$8 per night, which helps keep the costs of therapy down.

### More Business for the Sleep Labs

Ultimately, sleep labs can still get the repeat business of those who discontinue CPAP and move on to oral appliances. To make this a reality, Spencer is helping a few sleep labs to create compliance programs that incorporate oral appliances. The resulting necessity for follow-up PSG ultimately makes the oral appliance less threatening to the labs. "The patient that gets referred to me is automatically scheduled—by the sleep doctor—for a follow-up PSG 3 months down the road," says Spencer. "I've got 3 months to get the oral appliance dialed in. Sleep labs can improve their revenues, and it costs them nothing."

For the occasional patient who does not respond to CPAP or oral appliances, combination therapy can be the solution. Spencer calls these "CPAP helpers," and they are yet another avenue to convince sleep doctors that dentists can actually help patients to use CPAP more effectively. In one case, Spencer customized a CPAP Pro, which essentially allowed the patient to successfully use the CPAP (nasal pillows) with his oral appliance.

### The Silent Sleep

Spencer hopes to add his own design to the mix when his non custom oral appliance gains FDA approval. The new device, called the Silent Sleep ([www.mysilentsleep.com](http://www.mysilentsleep.com)), will keep the jaw from falling backward, thus keeping the tongue and oral tissues from obstructing the airway. Spencer says his device avoids the bulkiness of past non custom models, is designed for maximum tongue space and does not require dangerous and messy boiling of materials. Since it is customized in the office, it will be significantly less expensive than custom made appliances. He also hopes that it will be used in the sleep lab as a trial appliance.

As with CPAP, Spencer acknowledges that oral appliances work for some and not for others. "The advantage of CPAP is that if it is on your face and adjusted correctly, it is working," says Spencer. "The advantage of oral appliances is that people tend to wear them. In long term follow-up studies in my office, the vast majority of patients use the oral appliance all night every night—whereas CPAP use may only be 4 to 5 hours a night."

Further evidence that Spencer is no foe of CPAP can be found in his efforts to fabricate custom CPAP masks for patients struggling with oral appliances and off-the-shelf masks. In these cases, he will make an impression of the face and mold custom oral nasal CPAP masks. "I tell my patients that I won't give up on them," emphasizes Spencer. "They may give up, but I won't."