

## Silent Sleep Could Make Some Noise

Idaho-based Jamison R. Spencer, DMD, MS, has designed a wallet-friendly non-custom oral appliance that could help clinicians deal with the massive numbers of OSA and snoring patients.

**Jamison R. Spencer, DMD, MS, president-elect of the American Academy of Craniofacial Pain, Diplomate of the American Board of Craniofacial Pain and Diplomate of the American Board of Dental Sleep Medicine** has made sleep medicine a top priority since the day he began practicing. As an expert in treating temporomandibular disorders (TMD), he believes dental health professionals are uniquely qualified to expand sleep apnea treatment options for the vast numbers of undiagnosed and CPAP intolerant patients.

The Silent Sleep non-custom oral appliance has recently received FDA approval. Dr. Spencer showed the new device to colleagues at the American Academy of Dental Sleep Medicine conference in Seattle 2009, where it garnered positive feedback and a few critiques. *Sleep Diagnosis and Therapy* caught up with Dr. Spencer to gauge the reception, and discuss the niche for the Silent Sleep in the burgeoning dental sleep market.

### What was the reaction to Silent Sleep at the AADSM show?

Reaction was very good. The roadblocks for patients who enter into oral appliance therapy, from the physician's point of view, are the relatively expensive cost of the appliance and knowing if the appliance is going to work in advance. Those are things that the Silent Sleep can potentially solve. We get the cost down and we have an appliance that does not require impressions of the teeth. It does not require a large lab bill and weeks for fabrication. We can do something in a quick and inexpensive way to determine if the patient is going to be a responder or not. Are they going to be able to tolerate the appliance? Is it going to be comfortable for them? And we can do this before we go through the expense of making a custom fabricated appliance. We know there are many excellent custom fabricated appliances on the market, and we use many of them in my office. The Silent Sleep allows us to have a stepping stone into custom fabricated oral appliances, without the upfront costs and expenses.

### Explain how the Silent Sleep can be used as an "in-between device" to help us know if a patient is a candidate for an oral appliance or CPAP?

The majority of patients that we in dental sleep are currently seeing are patients who have failed CPAP. They have had a full PSG, full CPAP titrations, and they have tried CPAP for a period of time and unfortunately have given up on using CPAP for various reasons. That is not necessarily the main group of patients that we may see in the future. There may be a time come when we see more patients referred directly for oral appliance therapy, but currently the majority of the patients that we treat are CPAP intolerant.

Oral appliances are relatively expensive due to all of the work that goes into fabrication; impressions of the teeth, bite registrations, appliance choice, fitting of the appliance, adjustment of the appliance and monitoring of the patient to see if the appliance is working. All of these things tend to make a custom appliance a bit more expensive for the patient. It is important that physicians understand everything that is involved in providing this level of care.

The Silent Sleep could be used to help the dentist and doctor know if the patient is going to be able to tolerate an oral appliance at all, and if the patient is going to be a responder. We know from the scientific literature that there tend to be responders to oral appliances, and occasionally non-responders. Using home monitoring, split-night studies, or other various methods, we could see if bringing the jaw forward and altering vertical is effective for a particular patient in advance of fabrication of a custom made oral appliance. Again, we would have a period of time where patients could use the Silent Sleep to tell if they are candidates to use a custom appliance before we go to the expense. Typically, we would expect an even better result from use of a well made and well fit custom appliance, so use of the Silent Sleep would just give us an overall idea of how the patient might do with a custom appliance.

We use a similar model in my office when it comes to use of tongue-retaining devices (TRDs). I usually employ TRDs with patients who have relatively loose fitting dentures and we can't make a typical custom oral appliance. I have found over the years that most patients do not like wearing tongue-retaining devices. To have a custom made tongue-retaining device costs hundreds of dollars for the laboratory bill. So what I do in my practice is I have a non-custom tongue retaining device (the Snorex) that we sterilize and allow patients to use for a free trial. They try it for 2 weeks. If they like it, then we go back and go through the steps to make them a custom device. If they do not like it, they give it back, and we sterilize it for the next patient to try. We can use a similar model for custom made oral appliances. I think we would have more patients come into our offices if the referring physicians knew that there was an alternative to the higher cost appliance. That is, if there was something they could do immediately for less cost.

### What has been the reaction from other dentists?

Overall the reaction has been excellent. A lot of the dentists that I have shown the Silent Sleep to are from the AADSM and the AACP. These dentists are not beginners. They are at the top of the field. Because of that, they will offer constructive criticisms and some have come up with uses for the Silent Sleep that I hadn't even considered.

The goal of the Silent Sleep is not to take away from the use of custom appliances. In my personal practice, I use custom appliances more than I do the Silent Sleep. The Silent

Sleep has its place, but it is not a replacement for custom appliances. As I explain this to the dentists, they are able to understand that better, and they ultimately embrace it as a way to open doors, talk to physicians, and break down some of these barriers—whether they are just perceived barriers or real barriers.

Most of us who treat a lot of sleep disordered breathing patients have a high acceptance rate of patients who do accept care. In my practice, I would say that approximately 95% of patients who come into my office who are candidates for oral appliance therapy go through with the recommended treatment. So, why is the rate so high? It has to do with the discussion that the physician has with the patient, which goes something like this: *“Mrs. Johnson, you have tried CPAP and you are having difficulty with it. I am going to refer you for possible oral appliance therapy to Dr. Jamison Spencer. Let me tell you in advance that the appliances are very expensive and they are not covered by your medical insurance.”* So that is the “sales pitch” that Mrs. Johnson gets before she calls my office. Therefore, if she does call my office at all, she expects that an oral appliance is going to be “expensive,” and “not covered by insurance.” Most patients are surprised to find out that their insurance most often will help them and that the appliances are not as expensive as they thought considering all of the follow up care.

Again, the majority of the people who actually make it in for an appointment have already made a decision to try an oral appliance before they call the office. They know that we are not “in network providers” (in most states dentists are unable to contract with medical insurance companies) but they feel that their health is worth the extra expense.

My concern is for the many patients who are referred to me every day that never pick up the phone to call my office because of their misconception regarding insurance coverage and fees. My passion is to get the word out that dentists have a lot of options that they can give the patient, from non-custom oral appliances, custom oral appliances and combination appliances to help patients use their CPAP more effectively. I think we just need to be able to talk to the patient and give them options and let the patient make their own choices.

Now that we are using the Silent Sleep more I have doctors who refer patients specifically for the Silent Sleep because they know that it is less expensive and they assume the patient will want a less expensive option. When I see the patient I evaluate their condition and give them options of various appliances, usually including the Silent Sleep and various custom fabricated appliances. I have found that the majority of CPAP intolerant patients choose a custom made appliance, even though it costs more. Many patients do choose to start with the Silent Sleep. Again, I think the patient should make the choice regarding their care after we give them appropriate options.

### **What was the genesis of the Silent Sleep?**

The original spark for creating the Silent Sleep came from a colleague of mine who came from the Philippines and told me of the problems they were having in the Philippines with sleep apnea, and the fact that virtually no typical citizen of the Philippines could afford a CPAP machine. He encouraged me to develop an oral appliance that could be provided

at less cost than CPAP and without the multiple visits and dental lab bills associated with a custom oral appliance.

I then started developing models and prototypes for the appliance that eventually became the Silent Sleep. While I did that, I found that there really was not anything like it on the market. Every non-custom appliance on the market was either “boil and bite,” or had no means for retention or customization at all. The available appliances all tended to be very bulky. There was little room for the tongue, and they had poor retention to the teeth. All of these things I put in the mix and tried to improve on.

The Silent Sleep has no material in the front of the appliance and does not cover the front teeth. As such, it allows for excellent tongue space. The Silent Sleep is fit with GC denture reline material, which is comfortable and tough. You are basically taking an impression of the person’s mouth while it is fitting, so it always fits perfectly! In addition to the GC reline material there are other materials that dentists tell me they are using to line the Silent Sleep tray.

I took the design to the FDA, and of course they had never seen an appliance like the Silent Sleep before. All of the non-custom appliances are boil and bite. Because of that, the FDA has scrutinized the Silent Sleep very closely, which has been a great process and I believe that we have a product that is safe and effective. The goal of the Silent Sleep is that it is used as a trial or temporary appliance while patients go from no treatment to custom treatment or to determine if a patient is a candidate for a custom appliance.

I know that there are a lot of patients who are not referred in the first place, or they are referred and they can’t afford therapy. I needed something that I could offer to anybody. The Silent Sleep started off as something that I thought would be just a lower cost alternative to a custom appliance, but I’ve found that the Silent Sleep is very comfortable and effective. My patients love it! I wear one myself, and it is super comfortable!

### **Can dentists play a bigger role in the diagnosis and treatment of sleep disordered breathing?**

I believe dentists should be one of the number one referral sources for sleep doctors and sleep labs. The average dentist has over 2,000 patients she sees in her practice. Dentists see their patients every 6 months or annually and they spend a lot of time with them. They can ask things about snoring and sleepiness. They can take a good look at the airway. All they have to do is focus their eyes a few centimeters posterior and then simply ask a couple of questions. With a simple screening mechanism in place most dentists would find that several patients a day would have an indication to be referred to a sleep specialist.

In the years to come dentists will become far more involved in the treatment of sleep disordered breathing patients. We need options for the patients. We need the ability to see if oral appliance therapy will work for a patient before we go to the expense of custom fabrication. Effectively treating a patient’s sleep disordered breathing improves their quality of life. It improves their bed partner’s quality of life. There is such a roadblock for many people who come in who are not able to move forward because of their minimal insurance coverage or complete lack of insurance coverage. This allows them to get started with a trial of therapy and find out how much we can actually change their life.

**What do you think is the key to helping more patients?**

I think education is the key; education of the doctors, dentists and the public. Unfortunately a lot of patients don't even talk to their doctors or dentist about sleep apnea. They may know a friend who has had a bad time with CPAP or they have heard that sleep studies are expensive and that often two studies are needed. I have talked to many Family Physicians who are also concerned about the cost of sleep studies and the relatively high failure rate with CPAP. I hope that the Silent Sleep will help patients and their doctors realize that there may be a relatively simple solution to their problem.

I have many patients who are referred to my practice by their family doctor or ENT directly for treatment of snoring without having gone through a PSG. I teach the patient about the importance of an accurate diagnosis for obstructive sleep apnea and that it is a life threatening problem. Virtually every one of those patients has gone in for a sleep study. I tell my patients that the wonderful thing about being diagnosed with

sleep apnea is that we can treat it. Maybe with CPAP, maybe with an oral appliance, but it is treatable. It is non-drug therapy, and it will often change their life significantly, potentially adding years to their life, and certainly life to their years. The Silent Sleep is simply another tool to help us help our patients.

Dr. Jamison Spencer is the director of the Craniofacial Pain Centers of Colorado and Idaho. His practices are limited to the treatment of obstructive sleep apnea, snoring, and the diagnosis and treatment of craniofacial pain and temporomandibular disorders. Dr. Spencer is the President Elect of the American Academy of Craniofacial Pain ([www.aacfp.org](http://www.aacfp.org)). He is a diplomate of the American Board of Craniofacial Pain and the American Board of Dental Sleep Medicine. Dr. Spencer lives with his wife and 6 children in Boise Idaho. For more information regarding the Silent Sleep go to [www.mysilent-sleep.com](http://www.mysilent-sleep.com) or call 888-872-8538.

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Use the Silent Sleep bite gauge to bring the mandible into proper anterior position. Hold that position until material sets.



Remove from the mouth and trim excess material.