Discover How Oral Appliances Transform OSA Treatment Transcript

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Introduction to Dr. Surkin and Oral Appliance Therapy

Welcome again to the Sleep Deep Summit. New approaches in treating sleep apnea and insomnia. I'm your host, Dr. Audrey Wells. And our next guest is Dr. Lee Surkin.

Lee Surkin has made a career out of cross-pollinating with different fields. And I want to tell you, he is board certified in cardiology and sleep medicine.

He is the founder of the American Academy of Cardiovascular Sleep Medicine. He's the CMO or chief medical officer of Nexus Dental Systems and the CMO, chief medical officer of VirtuOx In addition to all of this, he runs a telemedicine based private practice in sleep medicine in New York City.

So we're going to talk today about oral appliance therapy and sleep. Welcome, Dr. Surkin. Thank you, Dr. Wells. And you know, when you were introducing me, I was like, is that really me?

That's that that person's way too busy. But yeah, that's. That's me. Thank you. Thank. You've got a lot on your plate, for sure. Yeah, but it's all good stuff.

It's, you know, I've always sort of tried to be a trailblazer as a cardiologist incorporating sleep because they're so closely related and and and then throughout all of the years of being in practice now over 25, 26 years, you realize that there's not a one size fits all treatment solution for, you know, sleep disorders in general.

And especially obstructive sleep apnea. So I just by the nature of of me, I guess I've gotten involved in so many different areas to try to improve things for our patients.

You know, I couldn't agree more. I think there is a lot of personalization that's still needed when customizing treatments for different sleep disorders, especially sleep apnea, as you mentioned.

And, you know, I think although CPAP is still the gold standard for sleep apnea, care, oral appliance therapy is now sort of making us surgeons, especially since the pandemic and the CPAP machine shortage.

So I wonder if you can orient the audience about how oral appliance therapy fits in to sleep apnea treatment? Yeah. So it's it's definitely a treatment option that is growing in popularity and absolutely has a very important niche in treating obstructive sleep apnea.

When Oral Appliances Are Used for Sleep Apnea

So, you know, standard practice guidelines would suggest that a dental appliance or oral appliance therapy device can and should be used as a first line treatment option for individuals with mild or moderate obstructive sleep apnea and as an alternative option to CPAP for those individuals with severe obstructive sleep apnea.

So they just can't tolerate CPAP or, you know, they can't imagine wearing a mask on their face and pressurizing their airway. Just don't want to have anything to do with it.

Then, you know, then the dental option really for severe sleep apnea takes a front line position as well. Yeah, I agree. And you know, I want to say that for those who are looking for an alternative to CPAP treatment, one of the big questions is, are oral appliances covered by insurance?

Because when it comes right down to it, cost is a factor. Yeah. So what's what's interesting and not well known at all is that these dental appliances or oral appliances are obviously treating a medical disorder and are therefore covered by most medical insurance carriers.

So, yes, it is a medical insurance billing that obviously benefits the patient because, you know, a minority of people have dental insurance anyway, but can be very, very challenging for the dentist because, you know, dentists deal with dental insurance or you or no insurance for that matter.

They really don't have a lot of experience navigating medical insurance. And I know I can speak for you, Dr. Wells, that that that even for physicians, for medical doctors, medical insurance can and it's not uncommon that it's a nightmare for us to deal with.

And I love your pun there in the context of a sleep discussion. But it is true. I mean, I, I, I kind of remove myself to save my own stress when the topic of insurance comes up, because it is extraordinarily frustrating to me and I want to just kind of get the nuances down here because with a diagnosis of obstructive sleep apnea that comes from a test, then medical insurance would be used.

But there's also kind of like further left on the spectrum of severity upper airway resistance syndrome or just primary snoring. Is there any coverage for oral appliance therapy, either from medical or from dental insurance for those conditions?

Insurance Coverage and Out-of-Pocket Costs

Is that those those those sleep disorder breathing conditions that are not not diagnosed officially as obstructive sleep apnea, snoring, upper airway resistance syndrome.

And, you know, your podcast attendees obviously know what snoring is, but upper airway resistance syndrome is basically, as it sounds, it's a resistance to airflow in the upper airway that can be disruptive to sleep but does not meet the criteria of being obstructive sleep apnea.

So it's kind of like a middle of the road sort of thing. And it is much, much, much more challenging to get insurance coverage for snoring or upper airway resistance syndrome, despite the fact that according to standard practice guidelines, an oral appliance can and is quite suitable to treat those those, you know, sleep breathing disorders that are not officially obstructive sleep apnea.

Yeah, and I think, you know, it's my clinical experience. Those often occur in women, sometimes in women of normal weight. And unfortunately they can be quite disruptive to sleep quality and really make an impact on day to day functioning.

So I just want to kind of validate anybody who's going through that experience. It is real. Even though you're not kind of meeting these criteria for obstructive sleep apnea, the the detriments to your sleep quality are problematic and it may be worthwhile to pay out of pocket in order to get treated.

And I'm wondering, can you kind of ballpark a cost if someone is paying out of pocket or has a very large deductible, what could they expect for to pay?

Yeah. So for a custom made oral appliance that is typically provided to an individual by a well-trained and I would like to maybe spend a little more time on that.

Well trained. Qualified dental sleep medicine provider. You you know if there's an out-of-pocket costs that the pricing is is very variable depending on obviously where you live but it can range from a couple of thousand dollars to many thousands of dollars for this type of device.

I do recommend strongly that that individuals seek out dentists, either through their primary care provider or or if they have an established relationship with a sleep medicine physician, a properly trained, thoroughly trained dental sleep medicine provider.

There are courses out there in the United States that are appealing to dentists, like a weekend course where you go into the course on Friday as a dentist and you come out on Sunday afternoon now as a sleep dentist and yes,

go ahead and practice dental sleep medicine because you did the course.

Well, that's just not adequate when you're dealing with treating a disorder as complex as obstructive sleep apnea is. It requires collaboration with a sleep medicine physician as well as the I'll say, the village, if you will, of health care providers involved in that patient's care, from primary care to ear, nose and throat to pulmonary to cardiology.

It really needs to be a collaborative, interdisciplinary approach to care, but it can be very costly. Just I mean, health care in general is very costly.

If you have a high deductible or have to pay out of pocket. Yeah, I totally agree with the idea that a seasoned and capable dentist needs to be in charge of making the oral appliance therapy just so you're getting the value out of the appliance.

And if something is going wrong or you're experiencing side effects, that person is equipped to handle that and communicate with your sleep medicine doctor or even your primary care doctor about what the next steps are.

So it's like you're in good hands.

Choosing a Qualified Dental Sleep Provider

You know, somebody absolutely had extra training and, you know, the cost piece is tough. Sometimes I relate this to buying a new bed, though. You know, if you if you go out and buy a new bed, you certainly, certainly want to have something that's quality.

You want to make it customized for you, how you sleep and you're going to spend money in order to pay for that. It's an investment for something that you do for a third of your day, every day for years.

And the same is true for the oral appliance. So I hope that helps to contextualize a little bit, you know, why this type of investment would be worth it.

And I'm wondering if you can explain a little bit about how long these oral appliances last and what would be some circumstance is where someone would either grow out of it or sort of not be able to use it anymore.

And so they they typically last several years before they need to be replaced like CPAP. If an individual gains a lot of weight, loses a lot of weight, you know, there needs to be ongoing adjustment and follow up.

If individuals are grinders, which we call boxers or bruxism in medical terms, you know, that can wear down a dental appliance to the point where it needs to be replaced sooner than one would expect.

So there is a life expectancy like CPAP machines as new technology comes out for CPAP or typically they're they're renewed every five years. A dental appliance is typically renewed every 3 to 5 years as well.

Got it. Yeah. And I would guess that if there's dental work that necessitates filling or a crown or something like that, that might affect the fit of the oral appliance as well.

Yeah. So the, the, the patient journey if I can take liberty and share that with, with our podcasters. Yes. The, the individual would obviously have ongoing sleep problems, you know, snoring, awakening, feeling refreshed, awakening with a dry mouth headache, that sort of thing.

Sleepy, tired, low energy during the day, God forbid, an accident because they drove when they were sleepy or, you know, we're operating some sort of equipment and just weren't completely alert and they got into an accident.

So that would typically prompt a referral to a sleep medicine physician or potentially even to a dental sleep medicine provider from a primary care provider.

So that let's go with the sleep medicine physician would evaluate the patient, determine the type of testing that would be required to make the diagnosis after obtaining the clinical history in an encounter with this individual.

And then if depending on the results of the test, the sleep medicine physician would engage with the patient on treatment options. And then if the dental option was felt to be most appropriate, refer that patient to the sleep dentist who would then do a thorough dental evaluation.

So back to your question, Dr. Wells. If that individual had significant dental problems needed implants or cavities or dental work, all that stuff has to be done first before a dental appliance would be appropriate to treat obstructive sleep apnea.

So that's that's a very important aspect that the dentist evaluates in addition to others. The dentist evaluates the airway, evaluates the temporal mandibular joint, because there can be an impact by the dental appliance on the temporomandibular joint.

Does that individual have temporomandibular joint disease, which can sometimes negate that individual's candidacy for dental appliance? It can sometimes make it can sometimes benefit from an oral appliance to treat obstructive sleep apnea.

So that's, again, coming back to my point of the importance of going to a well-trained, qualified sleep. Dentist cannot be underestimated. It's yes. And the American Academy of Dental Sleep Medicine or AADSM.org is the website actually has a very convenient way to find a trained dentist with your zip code.

So I really like that feature of their website. You know, one thing that I've I've talked to people about who use CPAP are and they're unhappy with some component of it, but especially with higher pressure settings is the idea that you can actually layer these two treatments in order to get a better effect so in other words, using an oral appliance in combination with CPAP, especially if the CPAP pressures are quite high.

Can you talk about that? Yeah, sure. So taking a step back, you know, we know that CPAP is basically a very sophisticated air compressor which draws in room air pressurize it, send it and sends it into a tube, into a mask.

The individual breathes in this sort of continuous, hopefully gentle flow of pressurized air which pressurizes the airway. So it will reach a point when it's properly adjusted for the individual's needs of not allowing the jaw and the tongue to collapse back against the airway sort of pressurizes the airway.

Sometimes people have very resistant stiff airways that requires higher levels of pressure. So when you get to higher levels of pressure, it it subjectively for that individual can become more difficult to exhale, to breathe out.

They say, my patients tell me, you know, Doc, it feels like I'm breathing out against a brick wall. I can't get the air out because the pressure is too high.

So there are there are options that we as sleep medicine physicians can recommend to our patient, like positional therapy. So if you position the individual on their side, you know that that is a favorable position for the airway and can result in a reduced amount of pressure required.

Combining Oral Appliances with CPAP

If you place a dental appliance that we've been talking about, this podcast into the mouth, what that does is it provides a stabilizer, if you will, to the jaw.

So as the individual gets to sleep, goes into deeper stages of sleep in all the muscles of our body, relax. Those muscles are also include the airway muscles.

So the airway muscles, when they contract, they enlarge, when they relax, they narrow. So everyone experiences a degree of narrowing of their airway when they go to sleep and enter deeper stages.

That narrowing of the airway and deeper sleep and relaxation of the muscles can allow the jaw and the tongue to move backwards. So now imagine if we had a device that simply can be it's custom made, placed in the mouth at bedtime.

And when you rest your teeth in it, it it's stable eyes is the position of the jaw and therefore stabilizes the tongue position. So the sleep dentist will evaluate the patient, send off a scan or a mold of the teeth to a lab, have an appropriate appliance made placing the appliance when it comes in at another visit to help stabilize the jaw and and position it a little bit forward a little bit forward from from the position that, you know is where your teeth, upper teeth and lower teeth would be in alignment.

So a millimeter to millimeters forward, we're stretching the airway a bit. So we're positioning the jaw and the tongue a little bit forward to help keep the airway open.

So now if you have a patient who requires very high CPAP pressures and is not tolerating it, well, you can place one of these dental custom made dental appliances in at bedtime with the CPAP mask, and that will help to keep the airway open larger and should hopefully require less pressure on that from the CPAP machine to maintain consistent airway patency or that open airway and breathing all night long, better quality sleep, better health, better life, the whole nine yards.

Yeah, and that's what we're shooting for is a way to kind of deliver that healthy sleep to a person affected by sleep apnea. One thing that I talk about with with people, especially if they wear a nasal mask, usually it's one that fits over the nose, which I prefer, because it's usually more comfortable.

People can tolerate that better is that they need to have lip closure around the oral appliance so that air isn't coming out. Yes, exactly. The nasal masks leave your mouth out in the open.

So around the oral appliance, you have to have lip closure in order to keep the air in. Yes. For the for the most part, the dental appliances require you to have a closed mouth and be able to breathe in and out of your nose, which we would probably want to spend a little bit of time talking about the importance of nasal breathing as well.

There is one specific type of dental appliance that basically has an open airway built into it for individuals who have chronically chronic difficulty breathing in and out of their nose so that that could potentially be used.

But for the most part, you're absolutely right. The dental appliance is is a closed mouth type of treatment. Yeah. And what sorts of things might a person try in order to keep that lip closure around something that's taking up some space in their mouth?

Yeah. So again, working closely with the sleep dentist, getting those those that sort of guidance with regards to positioning of the, of the dental appliance which can be adjusted and should is obviously custom fit for then individuals.

So, you know, if an individual has a smaller mouth, if you will, you wouldn't necessarily want to put a large bulky device in. You would choose something more streamlined and small.

So so that it would be comfortable for the for the user. Mm hmm. For sure. And going back to your point on nasal breathing, you know, this is something I beat my drummer about all the time, because. To.

The nose is really specialized for breathing. So what do you tell patients who say, you know, I really don't breathe through my nose. So I tell them that it's in general, we know that it in general it's bad for your health.

So being requiring mouth breathing is is is indicative of a problem, obviously, with your nose and and can increase the long term risk of many different health problems.

So if your nose is congested and you are not able to breathe clearly, at least through one nostril at a time, not everyone agrees out of both nostrils all the time.

But as long as you can breathe out of one nostril all the time, then, then you're good. But if you can't, then that leads to the development of obstructive sleep apnea and that obstructive sleep apnea in that individual could potentially be cured by going to an ear, nose and throat physician and having the nasal passages opened up, which can be done medically and or with, with a minor surgical procedure. Mm.

Yeah. Just the simple act of having that hinge joint can crimp the airway a bit. Yeah. Such that you're more likely to have collapse at that level. So yeah.

So ear, nose and throat or ear, nose and throat surgeons are our folks that are definitely part of need to be part of the team that I had mentioned before as as caregivers for the patients with sleep disordered breathing.

Yeah, there's actually a lot you can do with relatively minor procedures to stabilize the nasal passages or debunk the inside. So, you know, for some people, that's going to be a permanent fix.

That up levels their health. And I want to tap into your cardiologist brain a little bit here, because I think many people would be surprised to know that mouth breathing can have effects on your heart and other systems.

Nasal Breathing, Mouth Breathing, and Health

Can you talk about that? Yeah. So, Stent, the studies have shown and there's been a pretty popular book written about this that, you know, that if that the more consistently you need to breathe out of your mouth can result in, you know, long term cardiovascular problems and, you know, other health consequences.

It's it's even recommended that you try to breathe in and out of your nose when you exercise. So that is something that's very, very important to keep in mind and basically have a low threshold to bringing it to your attention of your primary care provider and getting a referral or having the primary care provider initiate treatment and or getting a referral to your ear, nose and throat physician.

Yeah, so important. And I've just had an error with my camera, so I'm switching over to something else now. But you know, I think that when it comes to mouth breathing, anybody who's doing that for a significant amount of time really should take a step back and think about options where they can promote nasal breathing and really start to turn things around by getting to nasal breathing all the time.

Yeah. Agreed as we close here. Dr. Surkin, I wonder if you can let people know where they can go to find out more about oral appliances such as Nexus and where they can go to find out more about you.

So thank you. So in my role as chief medical officer of Nexus Dental Systems, first of all, the website is nexusdentalsystems.com and there's a referral resource even through that website to locate a well-trained, qualified dental sleep medicine provider.

We are I am putting I'm building a national network of board certified sleep physicians in every state who will collaborate with sleep dentists in in their state in the care of of their patients.

One of the things that Nexus dental systems does for dentists is very efficiently help them navigate medical billing on behalf of their patients. So through the efforts that Nexus dental systems provides to the dentists assistance with reviewing their insurance, the patient's insurance and assistance with medical billing, we are effectively saving patients a lot of money because we have the ability to get the dentists in-network with many, many different insurance companies across the country.

And if you're in-network, you're going to save as a patient, you're going to save a lot of money than having to go out of network or obviously totally out of pocket.

We Nexus dental systems also educates. We have a comprehensive educational program through an academy called the Academy of Clinical Sleep Disorders Disciplines.

It's nonprofit. In fact, Dr. Wells I don't know if I had told you earlier, but I was one of the organizing physicians of the curriculum that has that was accepted first of its kind as an elective course in sleep medicine at the Medical University of South Carolina.

We launched it last year, and we were invited back for this year. In fact, it's ongoing as we speak in this fall semester for medical and dental students.

So we are very, very involved in education, educating the dentists comprehensively, thoroughly certifying them and giving them practical training on which appliance to choose based on their patients anatomy.

So we hold their hands until they're ready to fly on their own and we are involved in that aspect of of comprehensive trends, not a weekend course. It's a very it's a rigorous course.

Finding Resources and Closing Remarks

But if you're going to do it, you've got to do it the right way. So there's many other aspects of what Nexus dental systems offers to patients and of course, dentists.

And it's on on that website. Well, that's really fantastic. And I just want to underscore what you said earlier. It's a really involved procedure. The proceed the construction of these customized oral appliances can be spendy.

So you want to carefully select the dentist that is constructing that and following up with you. Give us the website again, please. Nexus Dental Systems, so N E X U S D E N T A L S Y S T E M S.com, nexusdentalsystems.com You can find my bio on on that website as well.

And there is a search engine where you can enter your zip code and locate a what I'll call a Nexus dentist which is defined obviously as a very well-trained, experienced, qualified sleep dentist.

That's fantastic. I think a lot of people would be interested in getting the value out of that and certainly avoiding wasting money on things that don't work.

So. Yeah, great. Well, thank you so much for our discussion today. And I think it really encapsulates the idea that oral appliance therapy is a viable alternative to CPAP treatment.

And so for anybody who's interested, we've really given some actionable steps to start looking into that if it interests you. Thank you, Dr. Wells. It's been a pleasure.

Same here.