Introduction and Speaker Background

This is the Sleep Deep Summit. We're talking about New Approaches In Beating Sleep Apnea And Insomnia. I'm your host, Dr. Audrey Wells. I'm super thrilled to have our next speaker, Dr. Steven Park Dr. Park is not only an otolaryngologist or ENT surgeon.

He's also board certified in sleep medicine. And he's someone that I have followed for about a dozen years. We have a very similar philosophy when it comes to treating people with obstructive sleep apnea.

And today, we're going to delve into some of the reasons one might consider a surgical treatment versus CPAP and how to kind of look at the landscape of treatment modalities available when you're considering obstructive sleep apnea.

Dr. Park, welcome. And I wonder if you can walk me through your background and what projects you're excited to work on currently. Thanks to you Audrey for inviting me.

So, as you said, I'm an ENT surgeon. And later on, I became certified as well. And when I first started practicing about 23 years ago, I was a general ENT doctor in Manhattan.

And I was seeing typical ENT patients. But the bulk of it was nasal congestion, ear problem, the typical ENT that you see in general practice But I started to see a lot of sinus surgery patients who needed surgery because they didn't respond to medical therapy.

And I realized that most of the people had severe snoring problems, so they didn't sleep well. So I did a prospective study informally and it's six studies and every one of my patients who needed sinus surgery.

And shockingly, we found that 80% had obstructive sleep apnea based on sleep test. So that was a little bit surprising. But then third piece together, all these other studies that documented studies showing that, for example, acid reflux is linked to chronic sinusitis.

So just look to sleep apnea. Sleep apnea through acid reflux, they all cut into the intertwined together in one. The other one gets better in all directions.

So when somebody kind of hit me, that is, well, if you can treat the sleep apnea, because I thought that that was the main source. When you stop breathing, you're going to forcefully vacuum up your normal stomach juices into your throat.

So I think the main reason why people have acid reflux and like people have these issues and take medications, yes, you can have stomach issues and indigestion.

But for most people, the breathing problem is you're going to forcefully suction out now and you just stomach contents. But also not that not only includes acid but also bile digestive enzymes and bacteria.

So it's very irritating substances that come out the ears. It not just the throat giving your throat clearing, hoarseness, coughing, lump sensation, but also these same juices can also go into your nose, sinus in the ears and your lungs.

Therefore, actually found pepsin, digestive enzymes in all these areas, which is. Fascinating. Yeah, definitely not what you want. And I mean, in my experience, having acid reflux at night as a component or even a red flag for obstructive sleep apnea is so common.

And I think it underscores the idea that when you look at a person's sleep, you're really also looking at the whole person. You're looking at a whole body approach in order to help somebody not only optimize their sleep quality, but also function better during the day.

Sleep Apnea, Reflux, and Whole-Body Health

Right. And one of the things I've learned over the past decade, 15 years or so, is that in this year, I was focused very solidly on sleep apnea and breathing, because that's my specialty.

And I saw some incredible things happen when you can improve people with breathing problems from a surgical standpoint, not just sleep apnea, but other breathing issues that we see in our field.

But I've had to kind of pull back and just look at the bigger picture, like like what you're saying. It's not just the breathing, but also the environment, your mindset, your emotions, your diet, you toxins, a light therapy.

It's all just connected, like you said, as a human being, we're part of our environment and the environment affects us internally and we also affect environment too.

So I had this holistic shift and the past couple of years, especially definitely that past two or three years where I've had to kind of all of my opened my mind to more holistic options of ways of treating sleep breathing comes not as a breathing issue, but as a a bigger picture.

Yeah. And it turns out breathing is pretty central to being alive when important. Yeah. And, you know, I think that when you take a holistic approach, you're really it's kind of a common sense approach, isn't it?

It's kind of going back and saying, What am I doing that's healthy or not healthy? How can I identify factors that are interfering with my breathing or my sleep?

And what are the things that I really enjoyed talking to you about before? Was your approach to surgery when it comes to treating sleep apnea? I really loved the way that you weren't so keen on taking out the scalpel or the carry wand and trying to address sleep apnea that way.

Can you describe for our listeners and our viewers what your approach is when someone comes to you for a sleep apnea treatment, evaluation. Sure and as you can imagine, most people come to me expecting to undergo surgery because that's why they found me on the Internet or different referred by someone else or even sleep doctor because they can't tolerate CPAP But my priority is to try to avoid surgery.

And I go either way. I twist people's arms to try to sleep if they if they're reluctant and go to dental about we work on weight loss nutrition stress reduction and I really really emphasize light therapy using the sun to get to the benefit of these patients.

So that's the first priority. And I take pride in the fact that I can get a lot of people to avoid surgery. But when it gets to the point being surgery, I'm much more aggressive than most surgeons.

Tell me about. That. Yeah. So the problem is that surgery, because we have this minimally invasive mindset in our field like these things are done in the office, for example, for snoring.

But I'm finding is that all these options that we have, most of them are too conservative or they're not in the right area. So most people will have not just one level obstruction, but multiple levels of obstruction.

I think that's a piece that is oftentimes missing. When someone is educated about their sleep apnea, they think it's all related to their tongue or their weight, when in fact there is multiple levels of potential airway obstruction and defining that can be really helpful in predicting treatment response.

Right. And one really important concept that I've integrated into my practice is this is what I wrote about in my box

of sleep interrupted that all modern humans have some degree of dental crowding because their faces are getting narrower.

So if you look at modern humans and compare that to now, say, 50 or 70 years ago, they had much wider faces back then and higher cheekbones. And if you look at some of these celebrities in the thirties or fifties, there's like aliens because they're these white faces where you get your grandparents pictures, for example.

What that means is that as our faces are shrinking due to a number of different factors or airways, again, smaller, two or more of us are going to be susceptible to breathing problems to various degrees.

We're all on a continuum. And so that's so I kind of I treat patients as if the modern people have a sleep breathing problem. Now you'll have to have sleep apnea.

And this is one area that I'm involved in, is just in this concept that all of us are a continuum and sleep apnea is only the end spectrum of that continuum.

Even if you're normal or thin, you can still have breathing problems. So, for example, I've always had major sleep problems all my life. I always fell asleep in classes.

I slept in most of my medical school classes. But the only thing that kept me awake and alive is surgery. Because I was rocking, walking around, running around all day long, but only later in my career that I realized that just that this was a problem.

So I asked you to take the initiative to to basically treat myself. I underwent the expansion. I changed my diet completely. And I really, really healthy habits.

Now. I feel better now than I did 20 or 30 years ago. I think that makes a huge difference when you experience something personally and it kind of projects you to give better care to the patients that you see.

I can certainly identify with that. In fact, only recently I'm capturing the beginning of my own sleep apnea.

Conservative First: Lifestyle, CPAP, and Nasal Breathing

And I want to point out for anybody watching that I would be considered an atypical sleep apnea patient. I'm a woman. Oftentimes this is attributed to males only.

But it turns out women probably look different with their sleep apnea. My body mass index is in the normal range, and I don't have sort of the oral anatomy that's typically associated.

What I do have is a very strong family history of obstructive sleep apnea, and there's actually multiple factors that play into someone's risk. I define nine of them in the courses that I teach.

Now for you, Dr. Park, I wonder when you're looking at someone who wants to treat their sleep apnea and maybe they've gone through the non-surgical modalities, how do you filter out what surgical treatments may be applicable for each person?

So my first priority for anybody is to make sure that they're breathing of the nose. And the reason is, number one, it's really important to breathe your nose because the nose has an important function of filtering humidifying warming the air flow and smoothing the flow of air.

But also, the nose makes a gas magic outside that kills bacteria, viruses and funguses. And also, if you breathe your newswire flow into your lungs, that nitric oxide increases oxygen uptake by 10 to 20%.

So it's important to presume that it's not your mouth, but people think that if you breathe in your mouth, that you can breathe easier. Right. But it's actually wrong.

When you open your mouth, the tongue goes back so you get more obstructed. So the first priority is to help you breathe both your nose and that what I find is that it helps people to tolerate or benefit from CPAP or dental classes to a much greater degree.

So I remember one study looking at people who couldn't tolerate CPAP. They use it on average about 30 minutes per night after there's a study went up to over 5 hours of CPAP.

That's a big difference. And I see this happening all the time. I agree. And I beat my drum about nasal breathing to the point where I, I feel like, you know, there's there's only so much you can communicate in one of those short medical visits.

However, any time I see somebody on a full face mask, I try to circle back and ask him, Why are you using a full face mask? Because the nasal masks or the nasal pillow or a cradle mask are associated with more comfort.

Longer use and nightly use of CPAP compared to a full face on top of that. You get all the benefits of nasal breathing. So whatever people can do to breathe, breathe better through the nose is going to be more effective.

And also, they've shown that when you switch the nasal mask after surgery, the process can be lower, too. So it becomes much more comfortable. Yeah, I'm sure people will love to hear that because it's really reassuring.

You were meant to breathe through your nose. So let's try to get back to that. How do you decide which operations to offer? So with the nose, I know that there's the turbine neck to me where you're kind of debulking in the inside of the nose, there's a septal deviation correction.

What else? Well, so that's an interesting history behind the nasal operations. So in our field, when I first trained, we were very aggressive. So we did a set of plastic, which is just threading the crooked septum from crooked to straight in the middle of the nose and then the terminus, these wings in the side of the nose.

That's what swabs up. We have a clear allergy. So in the old days, we used to take out a quarter or a half or even the whole thing out. But that caused problems long term, something called MP nose syndrome.

So over the past couple of decades, the pendulum has swung the other direction to very minimal invasive procedures. So these are what they call it, some mucosa or really invasive mucosal therapy.

So because of sperm therapy, so these procedures can be done in the office using a little radiofrequency probes to kind of burn the tissues on the inside.

The problem is that, yes, they do work, but now we've gone too conservative. So what I'm seeing a lot of times is that these patients undergo these nasal terminal procedures, but they still have this congestion because over time it comes back the swelling and the inflammation causes terms to fill up again because they didn't address the is source of the inflammation.

So that that's one area. And the number two is that the lot of surgeons don't address the nostrils. So this is a major issue for many people. So my theory is that if the face doesn't expel and like this, the nasal cavity is also more narrow.

So your septum is crooked. This way the terminates are more towards the middle here and the nasal angle and you're being like, this is more like this.

So it tends to cave in a lot easier. And one of my colleagues at Einstein Maritime said that ten years ago he did a study is a plastic surgeon vs a plastic surgeon and he actually did a pre and post sleep apnea study after nasal surgery.

And in most cases, we've shown in our field that if you do nasal surgery, for the most part, it doesn't really try to sleep apnea. So maybe about 10% patients with mousy brown, it does help, but overall, it doesn't really help this

development in the previous analysis.

But what he did was in addition to the septum and the terminus, he also addressed the nostrils. And this success rate was much, much higher, I think like 40 or 50% as opposed to 10%.

Oh, that's remarkable. I was very aggressive about addressing the nasal nostrils and using various different techniques you can do. The most traditional operation is something called of open rhinoplasty approach with other band grafts.

You take cartilage from the air and put like a stent here, but these are more aggressive operations and then kind of squish some more conservative options.

There's a suture suspension option. You kind of bury a screw right under the eyelid and you go on this skin and grab this nostril looped back up. And then there are other ways of going inside the nose and kind of overlapping ecologies. So there's different variations.

But when you do something to different nostrils, you get much more higher success rates. That makes sense. And, you know, kind of analogous to sleep apnea, it seems that there multiple levels of surgical approach there.

You know, you mentioned that you're a surgeon who doesn't necessarily recommend surgery, which makes me think of my grandpa, who I always used to say, if you take a cow to a butcher, you're not expecting a haircut.

So it's a little refreshing to hear a surgeon who would recommend going back to CPAP therapy if a person hasn't given it their all. And I know this is something that you address on your website and in your coaching and teachings.

Can you give me an example of some of the techniques that you use to re recruit people back to the idea of using their CPAP better? So number one, we adjusted the nasal congestion issue that's really, really important.

The number two is dietary habits. So the most important tip that I recommend is I accept that it's a it's a it's an absolute must stop eating close at bedtime because that is what also can aggravate acid reflux.

And even if you have a low level of sleep apnea, having these apnea events can suction up the normal sound which is in your throat that causes more inflammation in a thought than your nose.

So you have to do these other conservative adjunctive measures to improve the sleep apnea therapy, whether it's a CPAP device or dental plans, and also a professional therapy is also very important.

A lot of people get confused about what the best position is, but I tell patients, you're going to normally sleep in your favorite position anyway. Like people these days can sleep on their backs.

And if you realize this, but most people like to go in this size of stomach because they can't breathe properly but comes occur when they get injured or they undergo an operation and suddenly they have to the forces sleep on their backs.

Now their sleep apnea goes up, the roof just goes straight up, and they can't breathe or sleep at all. So and then also a neck position is another issue where, as you may know, when you tilt the head forward, the area gets more narrow.

And this is why some of these contour pillows, a little bit of a difference because it allows you to sleep more like this neck can open up your airway.

So these are all factors to kind of address in a very cohesive way to not only previously, but also allow this CPAP therapy to work much better.

Nasal Surgery and Multi-Level Airway Obstruction

I want to spend a minute talking about body position because it's something that I get asked on a lot and it seems that we might have a similar philosophy.

So I tell people that there's no one superior body position. Certainly if you're sleeping on your back, your air pressure from the CPAP machine should be high enough to help stand your airway open.

And I like that position being available because it's not going to place pressure or mental alignment on the neck, the back, the shoulders, the hips, the knees, all of these major joints.

Your spine can develop issues if you're if you're limited to sleeping on your side. So having the back position available is a positive thing. And my least favorite position is stomach sleeping.

And a lot of that is because of the talk on your neck. Your back is not necessary in alignment. And also for CPAP users, it does tend to produce more mass movement that leads to air leak.

Do you agree? Yes, in most cases I do agree. But some people, even with a CPAP, CPR on their back, they're not comfortable. And I realize in the lab we titrate for that in the REM sleep on your back.

Right. But it's what happens in the sleep lab doesn't always correlate to what happened in your life. Now, when you think about the stomach position, is that when you're on your stomach, you're always going to turn your head right.

Most people don't sit face down on the bed. But what happens to the airways when you turn your head to one side, it opens up the airway. It's actually similar to when you move your jaw forward.

Oh, interesting. Okay. So they're kind of naturally doing that on their own. But I tell them, sit and use a simple machine in the position they normally sleep in which your favorite position is in for.

Like I said, most of them are going to on their sides. But I agree. For example, I myself, I don't like sitting on my side because I did on pain and numbness and I just like to signal my back.

But the way I sit on my back is to use a contour panel or I kind of made my own custom pillow. Oh, interesting. Using a dowel and using a husky Philip pillow.

So my wife laughed at me because I had to go through so many iterations of pillows and a custom fit different options. And I squeeze breathe whitestrips every night and also tape my lips.

Yeah, I know all these things when I go to sleep and that's how I get really good quality sleep. That's one thing that really kind of highlights how important sleep is to you and should be to everyone because it's such a component of health, it's a biological need, and oftentimes the impact of a little lower sleep quality or a little less total sleep time has subtle effects on your life.

But when you consider that it's night after night after night, those really add. Up. Yeah, it's very cumulative. You know, we can handle short term sip deprivation very well.

It's a cumulative long term prevention, not just quantity over quality that affects your quality of life and other health effects. Definitely. Yeah, I have a pillow that's similar.

I actually travel with it. That's how particular I am, and it goes behind my neck to give me that little lift. And I also find that doing some pillow prepping, like putting pillows stacked up under my knees, is really helpful to flatten out my spine in a way that allows me to sleep on my back, which is my favorite position.

Head turn to the side. Is another tip for travelers. Oftentimes, I forget I take my own pillow too, but I forget sometimes it's what I do is I roll up the large hotel towels, neck and neck and long roll, and that works pretty well.

Yeah, yeah, that's a good tip. Okay, Dr. Park, I have a question to pass on to you from all of the people who ask me. And, you know, truly, I feel like it takes maybe 30 or 40 minutes to explain the ins and outs of an inspired surgery.

But that seems to be on people's minds and I wonder if you can explain more about their criteria and the expected outcomes. Yeah, well, I have the privilege of having been involved in the early phases of the development of this technology with a company called AppNexus in 1919, 2010 and so I was involved with the feasibility studies and then the phase two FDA studies.

Unfortunately, the company didn't survive to a lot of technical reasons, maybe even financial reasons. We don't really know why. But ARPANET so inspired was competitors with AppNexus and eventually Inspire got the FDA approval in 2014.

Now the technology is pretty neat. It's a very high tech. What it involves is there's a pacemaker just like a heart pacemaker as implanted under the skin on top of the ribs up here in the chest cavity and a wire lead is tunneled under the neck, shoulder to neck, and you make a little incision under the neck and you find a nerve that goes your tongue is called the hypoglycemic nerve.

And then you connect a cuff around a nerve. And so there's another sensor that goes through the rib cage. So when it senses that you're breathing in, it stimulates the nerve to activate the tongue muscle to move forward.

So it's a very neat idea, actually. It was first developed at Johns Hopkins at that that meant that around 2000 and the idea got shelved and then I guess the companies took it off the shelves and start to develop it because technology was much more advanced now.

So it's a great idea. And the criteria are for inspire two, four or five criteria. Number one, you have to have tried or failed or refused CPR since that's a given.

But number two, is that your body mass index has to be less than 32. That's a major issue because the lawyer body mass index, the more skinny audibility of results, we saw that with our study as well.

And obviously you can have more than I think 25% central apnea as well. That's right. 25. It has to be within like one or two years. It's just different criteria. But a recent sleep study and I think now their velocity in home studies as opposed to just just in lab studies.

And then the last one is that you have to undergo what's called a drug induced sleep endoscopy. This is where they put you in anesthesia, like a colonoscopy.

And you take a look with a camera to see how the airway collapses. And they're certain criteria, what they're looking for, which makes you a candidate or not a candidate.

The biggest factor is in what direction does a soft power collapse?

Inspire Therapy: Criteria and Outcomes

So if there's a collapse front to back like this or like a person, so if you like a purse string, that means you're not a candidate is too floppy. Now the way this works is that when you simulate the tongue and the tongue base moves forward, there's a lot of tissue from the side of the tongue that causes the soft palate.

It's called the palatal glass or forward or the muscle. And when you put it down for that, the soft, plastic, flimsy and weak and floppy moving. At 1/2 there was another pause.

I wonder if you can say start with the political muscle forward. Yeah. And the reason why the simulation works is that when you push your tongue forward using the simulator, it tugs on a muscle called Apollo glasses.

Muscle the come into the side muscle that connects the tongue based on a soft palate. And when you pull the tongue forward, the titans are soft palate.

So that's what opens at this iconic. But if the soft palate class is like a purse string, that means the tissue is just too floppy. And so we train the palate, so we tend to the tongue.

Bass is not protecting the palate, but if the pipe collapses from the back, that means it's tight enough to respond to the tongue stimulation. So it's a very simplistic way of explaining why the inspire words in dog.

You're not touching it. You're not operating on the soft palate. So what do you feel like? Patients experience? I've been told that it feels like the tongue is crunching forward or scrunching forward when they breathe.

Is that consistent with what you see. What after everything feels, what you're going to feel is just as if you're voluntarily pushing your tongue forward.

Initially, because of the surgical effects, you're going to feel more irritation, swelling, and you may feel either numbness or pain or something. But after everything heals and slows down in the uncomplicated situations, it's as if you're taught to stick your tongue more forward.

And that's what happens. But involuntarily now, this operation does work very well in the if you choose a patient's very carefully. And the success rates in a company, I think it's conducted 90% range in terms of patient satisfaction.

But objectively, if you look at the official FDA study, if you look at what surgical success means in the anti and that is defined as 50% drop in the original HIV or the severity and the final HHI has to be under 20.

So this is a very technical term and it's not even a very good definition because you just need to have a 50, 50% improvement to say you're successful.

But you could still have severe sleep apnea with a 50% drop. But I you know, I think that's worth repeating again. So sometimes surgical success is different than not having sleep apnea or having a surgical cure for sleep apnea.

So you might see a reduction in the GI by 50% or that plus a high less than 20, which does not mean the sleep apnea is absent. Right. It means. But it could be labeled as a surgical.

Success because you can still have 19 that the end result as the end result and still have major sleep apnea. Yes. Yes, exactly. Now, that's a very old definition. It's called the Cher criteria.

We've actually modified that to say surgical success. Surgical success. There's different thresholds for success. So under 20, under ten, and then the five under five, it's considered surgical cure.

So the idea the dentist, for example, using these definitions, especially for jaw surgery, so you have to kind of look at the not just a funny number, but how the patient feels because sometimes you can have very low numbers.

The patient doesn't feel any better or vice versa. You can have very low responses in terms of the numbers, but they feel much better. That's one of the paradoxes of surgeons.

Yeah. And a paradox of sleep, too. You know, you can have very severe sleep apnea, but not be bothered too much by daytime sleepiness. And then kind of the reverse is true.

Where I've seen some people have relatively mild sleep apnea by our current measurement standards, but feel almost debilitated by their sleep and their daytime alertness, quality.

Well, one that brings up a very interesting point, that one area that I had this fascination with is what's called upper airway resistance syndrome. And these are more subtle partial obstructions that disrupt sleep, that doesn't show up or get scored on a sleep study.

And it's somewhat controversial in our field in sleep medicine as to how significant that is. And you have people on both sides of the argument, but I see it happening in people.

We actually did a study looking at people with HIV less than five who were very symptomatic. And we took a look with at sleep endoscopy. We found that 83% had significant multilevel obstruction.

Yeah, it's remarkable. I think one thing we can all agree on is that the HHI, the apnea hypoxia index is a relatively limited measure of what's actually happening.

So I'm glad that there's some attention on that recently. You know, getting back to the Inspire surgery, one thing that's changed is the criteria that you have to have less than 65 for an H II.

Now that's gone up to 100. I'm a little tentative to see that as a big advance because to your point, the patient selection for Inspire is really important.

And I think, you know, on one hand, 100 sounds is quite severe sleep apnea, but some people have very long airway obstructions and as a result, they have a relatively low H. I.

I can tell you that with an age of 100, I would know that person has relatively short airway obstruction. Sit still more than 10 seconds, but definitely not 45 seconds to a minute.

What do you think that difference in a high threshold is going to mean for the outcomes in Inspire? I haven't seen any other studies regarding this criteria.

I'm sure they justify that based on their studies, but I guess what they're doing is they're kind of trying to expand the indications for the Inspire.

For example, if they recently lowered the age in children to 13 for kids with Down syndrome and it's they're going the other direction and then to trying to raise the threshold for the for adults as well to make this it's a much higher but in general with any kind of sleep apnea surgery the higher the second you score in necessary the success rate in terms of satisfaction.

Yeah, in a sense now but I guess your argument is if you go from 100 to 40, so it be considered so you can get well, there's successful in terms of 60% reduction.

So they'll be they'll feel better. Right. So maybe the best risk factors of we drop significantly, but they're still not going to be normal. But if they can't tolerate anything else, then they have no other choice.

But going back to this exacerbated issue. So if you apply the surgical criteria, the sure criteria on the Inspire in the 2014 FDA study in the New England Journal, their success rate was like 6040 6%, just on par with the best GP operations.

The more modern update apnea powered operations are in the 67% range. You're talking about the uvula palatal for angioplasty, where the back of the soft palate and the end, oftentimes the uvula is removed.

Why not the traditional one? You just cut out the whole thing where they move the muscles around the movement as opposed to coming out, right? Yeah. In in my experience, the Inspire treatment is definitely a viable treatment and I really I don't have the opinion that sleep apnea necessitates CPAP treatment for everybody.

But the folks who are overweight more a higher BMI do tend to do less well than those with a lower BMI. And for me, people who have a significant co-morbid insomnia also tend to not get the satisfaction and the relief for their sleep apnea with conspire.

Yeah, that's a very good point.

Insomnia, New Technologies, and Prevention

That's why you have to have a really good sleep medicine team and to work together with a surgeon. But basically, I believe the sleep lab has to kind of hands on with the patient in terms of follow up because ultimately that that follow up and care and just setting adjustments and the counseling is what's so important for success because I've seen this happen when it was it inspired many years ago that says I would say about 30 patients really well from the start.

Third, they have some issues. You have to keep bringing them back and the settings and trying different things and about a third not as happy or it takes a lot longer for them to get to a point where they're happy. So but your point about does come over sleep apnea with insomnia.

That's why you also need a sleep doctor to kind of address that from an insomnia standpoint right now. But I've also been interested in a doctor very close work.

I am in fact, I practice in Albuquerque for about eight years or so. And that's where he's located. Yeah, yeah. He's in a lot of work on comorbid insomnia, complex, complex sleep apnea, and he a lot of insomnia, pain, and especially the PTSD nightmare therapies.

And he brought up a lot of interesting points about how insomnia, a lot of insomnia and sleep out in their kind interrelated. Yeah they overlap they sort of.

Yeah yes I think if paraphilia with the studies where people with complex complex apnea where that severe sort of severe insomnia not not not responding to any kind of medical therapy and when they treat a sleep apnea, most of the insomnia goes away.

Yeah, it's so interesting. And at that transition from wake to sleep is a is a rather fragile time for the brain and breathing. So I think that the person who experiences a hiccup in going from wakefulness to sleep and having their breathing kind of go on autopilot, if there is some friction there, what they'll experience is insomnia, not a breathing problem, right?

Yeah. It's so fascinating. You know, there's a new surgery kind of becoming more available, an abscess or cervical stimulation. What are your thoughts on that?

Well, you know, you're going to have new technologies coming and going. And I've seen it all coming and and it's never going to end. And what technology is going to come out of the problem is that fundamentally, I believe, sleep apnea at this stage of the game, yes, obesity is a major factor, but fundamentally it's a jaw structure problem.

And the more aggressive that you can make the jaws wider, the better results are going to be at long term. So that's why I think the surgeons are much more aware of the power expansion, the surgically assisted power expansion options.

I think double jaw surgery to mostly medical advancement is much more popular these days and also because of more awareness. And since more of these things are doing it, they're getting better results.

So I think there's a role for all these different options and obviously start with the most conservative first, but some people kind of move up that ladder to get the more aggressive options.

And so the answer I don't know, I haven't seen the long term studies yet, but it sounds promising, but just like the Inspire with these nerve stimulation options, you only going to get to a certain point that there's a plateau.

I think there might be an opportunity for these procedures to be layered and that could create the desired effect. But I also want to say that there's a role for prevention here.

So even starting to look at kids and seeing how wide is the palate, so the roof of the mouth is the floor of the nose

and the room for the tongue. The openness of the nose is something that can really be addressed much more easily in the pediatric population.

And so for those of you watching, look around at the kids. Make sure that you breathe through your nose. Absolutely. It's a really important point. I would argue that you should start even before they're born.

Tell me. Even before you're pregnant, get pregnant because the health of the mother affects how the baby grows, right? Yes. One of the other things that that I learned this past couple of years is, is how the environment affects fetal and child development.

And this is a whole other discussion. All the toxins and the fluoride, the pesticides. Yes, the endocrine disruptors. There's so many different insults to to our health, not just our own bodies, but for children's bodies.

And I can I have a lot of different theories as to why are just not widening. Actually, we did a study, we didn't publish it yet, but we had a manuscript.

We looked at college yearbooks from the 19 tens, the thirties compared to now. And we measured the height with Michaud. Of the palette. Now the facial profiles.

The facial profiles. Is to this dimension, and modern faces are much more narrow and taller as expected. Oh, fascinating. But that means our jaws are getting more narrow as a result of whatever is happening.

And they talk about soft diets and lack of breastfeeding and there's congestion and all these opposed factors. But there's another component, which is that some of the toxins, the chemicals and the this is kind of going going a little bit way off.

But even glyphosate, I can argue, has effects on biochemical processes that prevents bone and jaw and cartilage development. Interesting. Wow, you know, I think we've circled back to kind of the whole body approach to sleep.

And I love that philosophy because it really helps physicians like you and I to treat people in a personalized way, in a tailored way, to really help a person actualize on not only their health but their sleep quality from one night to the next.

And for decades end as we close. Dr. Park, I wonder if there's anything you'd like to add. And also where can people find you? Well, going back to what we talked about earlier, if you're in this start to breathe better and sleep better, focus on nose first, because most people have nasal congestion issues this day and age.

So do everything you can to improving their breathing. And I actually have a free resource called 7 Natural Ways to Unstuff Your Stuffy Nose And you can find that doctorstevenpark.com D-O-C-T-O-R-S-T-E-V-E-N-P-A-R-K.com doctorstevenpark.com/7 just a 7.

That's really fantastic. Thank you. Yeah. Right. And so if you start with a nose that will actually I would say about ten, 20, even 30% of people will succeed better automatically.

And then if you have weight to lose, that's always a factor. A major factor for people who have weight issues now will also lower your severe the sleep apnea in general.

But for people who are about be skinny, who have no way to lose their control, I mean, there are lots of these natural options available, but I think the biggest bang for the buck I'm seeing is suppression.

You know, children is to talk to an airway or a dentist. It's very paradoxical. It is very big these days in orthodontics and we're seeing fantastic results from powder expression and kids and even adults can benefit to some degree.

And I did myself. I did a panel expander and I feel so much better afterwards. Oh, that's great. Yeah. As an adult, it's a little more difficult because the bony sutures have formed.

But for kids, that rapid palate expansion, you know, I can attest to that being very effective, not only for breathing and sleep, but also to, again, widen out the nasal cavity and Azel breathing.

Yeah, you know, we've talked about it a lot today. I think one of the main messages is the value of breathing through the nose and preserving that nasal breathing even during sleep.

We talked about stopping eating before bedtime at least 3 hours to not only give your body's rhythm a chance to optimize the digestion of food, but also to prevent acid reflux that happens during night and especially when someone is lying flat.

We also address body position and neck position as potential ways that one might breathe better or worse during sleep. And it was interesting to find out that as a surgeon, your approach is rather conservative in directing people back to treatments like CPAP and helping them through that.

But if surgery is needed, you're willing to roll your sleeves up and get in there to make sure it's a really effective surgery. And that may mean a multi level surgery because sleep apnea is a multi level condition.

Finally, we talked about the Inspire treatment as a really relevant and successful treatment for many people, but the patient selection is really key in order to make sure the patient's expectations match the results.

That's the really valuable content here today. Dr. Park, thank you so much. Sure, my pleasure. And people can find you on your Website, right? That's doctorstevenpark.com That's all spelled out. That's fantastic.

Thank you for talking with us today. I'm sure people got a lot of value out of this discussion. Thanks again. I enjoyed it.