Introduction to Oral Health and Parkinson's

Welcome to the Parkinson's Solutions Summit. I'm your host, Dr. Ken Sharlin I hope you've been enjoying the interviews you've seen so far. And I have another very special guest today, Dr.

Joseph Bradshaw is going to talk with us about the mouth, the teeth, the gums, the tongue, the entire oral cavity and how very important this is to our health, its relationship to chronic disease, and, of course, specifically Parkinson's disease and related disorders.

I've had the pleasure of previously interviewing Dr. Bradshaw, and it was just so engaging. I know you're going to enjoy this today. So without further ado, Dr.

Bradshaw, welcome to the Parkinson's Solutions Summit. Yeah, thank you for having me. It's a pleasure. Well, tell me a little bit about how you got interested in dentistry and a little bit about what your own journey has been.

Well, as far as dentistry goes, I was planning on being a chemical engineer, so my dad worked for semiconductor materials and I was planning on going the chemical engineering route.

But it became very clear early, I would say two years into my undergraduate that I didn't like being in the lab that much and I enjoyed interacting with people much more.

So I remembered my dentist pulling my wisdom teeth and telling me I was going to be a chemical engineer, but I'm so glad I got into dentistry. I hadn't seen him in years, but I called him up and said, Hey, I've been thinking about changing it.

And he said, Oh, come on, but I want you to see what I do. And yeah, Then I went and observed him a bunch and they got into dentistry, left chemistry kind of behind.

There's a lot of chemistry in dentistry. Well, what do you see like when you go to the office, when you see that patient, when you think about them as dentistry?

Tell me about your passion. Tell me about what really excites you when you think about this broad field. Well, I mean, in all of dentistry, what really excites me is and I never thought this would happen, but I'm more excited about developmental helping people breathe.

Dentistry Journey and Interest in Airway Health

So about nine years ago, I ran into a case where a gentleman had a bridge made across the front of his teeth. He was from Czechoslovakia, a really interesting guy.

And in that bridge he didn't like the way it looked, just looked kind of flat to him. But more importantly, he was grinding the very back molars down to nothing all of a sudden.

And that was a new thing for him. Well, I didn't know everything that was going on. I took his case into a group called Spear Education that I was a member of there.

Well known group in dentistry, continuing education. And immediately these guys, they know a lot more than I do. They looked at him and they said, Oh, we know what's going on.

He has a breathing problem. His airway is being limited by that new bridge that had gone and it was a millimeter or two millimeter change, but it was enough to push his tongue back, block his airway, give him something called

upper airway resistance.

And now he was grinding away his molars. And so that was it. Like this started to answer questions on all these patients that I had seen, where I was seeing these same patterns in their teeth.

It started to make more sense to me. Well, this is what could be occurring and it really the last nine years I've just been delving into this and I'm super passionate about learning how these dots connect.

Oh, yeah. You know, my wife Valerie is a health coach and she is very integral in our brain tumor program here in the office. One of the areas that she is passionate about is the use of a biofeedback device called heart math that really helps people integrate breath into really their biological rhythms overall and to be in what we call coherence.

But one of the things that she discovered very early on, even really before delving into heart math, is she'd sit down with our patients who'd say, be in pain or have other issues and just observe them breathing.

And she'd say the most fundamental thing, like they don't know how to take a breath, not knowing how to take a breath. The thing that gives the life right.

And yet so many of us are not doing that properly. So it begins with the mouth and the nose. I know you're going to I probably jumped ahead for you a little bit to talk about that, but let's kind of talk about what what what do we need up here?

Because as I said before, we started the recording, is it really, you know, the mouth or the nose is more more than just sort of a hole that gets us to our lungs or to our or our stomach and the rest of the digestive system?

What are the parts that we need to be thinking about? Well, probably if we get right to the core issue, it, we call it the roof of our mouth, but it's not really the roof, Right?

That's a ceiling. The roof is on the other side. The floor of the nose is the roof. So if that ceiling of the mouth, the roof of the mouth of it doesn't develop correctly, you get a lot of underdeveloped areas of the upper airway.

And so so that roof of the mouth, if it's too thin or narrow or it's what we call vaulted, maybe then the child sucked their thumb or or maybe they have what's called a reverse swallowing pattern.

Again, something we all take for granted, swallowing you, swallowing correctly. If you engage in correct muscles when you swallow, then that sends you down a pathway of underdevelopment, of the arches, the bone.

So so that floor of the nose, so many people nowadays have deviated septum. For example, the septum is that middle piece between the two nostrils and it's just kinked a little bit or pushed to one side.

That deviated septum just affects the breathing in and any kind of limitation up here. And you end up using your mouth to breathe. And mouths aren't for breathing unless you're like really pushing yourself to exercise hard and you need some extra breaths, I guess.

But the tongue pushed up against the roof of the mouth, that's the natural position of the tongue. So. So something that you and I have talked about before, if the DNA, the blueprint in the past, we've considered the DNA like the driver in ourselves, but really it's just the blueprint, the RNA and how the body translates the DNA or interprets the DNA, what genes are expressed.

Mouth Breathing, Jaw Development, and Oral Microbiome

That's what we really see here. So epigenetically. So the DNA will just follow what we're doing in the environment or what our choices are. It'll it'll express the genes that create what we see.

So so if we get right at the source of that, that that centerpiece right here just it has so much to do with everything.

If the tongue and the correct swallowing is occurring, then the breathing happens through the nose, how it's supposed to, and then the jaws develop, how they're supposed to go down and forward.

Now, I jumped ahead. Go ahead. That's okay, because it really begs the question, you know, and folks are enjoying this summit to find solutions that maybe they haven't heard in the regular doctors office, things that they can do.

So what what should we be doing about this? Good question. Well, you'd want to discover as much as you can about how to breathe effectively through the nose.

If you breathe effectively through your nose, and especially as a young person, then the jaws have a chance to develop down and forward. So this isn't something I mean, you don't go to your physician and say, well, I want to teach me how to work this down here, that a lot of times in medicine nowadays we just go straight to medication.

There isn't really a medication to handle that just to help you along the way. For example, if somebody comes in and there's just always congested up here, you and I both know that the nitric oxide that gets excreted from the sinuses, the different sinuses in our skull, we need that nitric oxide.

It opens up our airways, lowers blood pressure, has a lot of health benefits. So but if we're always breathing through our mouths, we kind of we skip right over that whole thing that we need for our good health.

So that's just as an example, learning how to clean up or get your upper airway taken care of and not using your mouth for breathing is a good beginning as far as what to do about it, that's like a general thing.

That is awesome. You know, we were talking about this. There's been some studies that have looked at the use of antiseptic mouthwash because everybody thinks, well, you know, the gingivitis is such a problem, cavities, that kind of thing.

And one of the ways I can circumvent that problem or minimize it is by using a mouthwash on a regular basis. I mean, there's a product out there in particular, I'm thinking of that sort of staked it's entire reputation on that and made probably millions upon millions of dollars, you know, commercially, plus all the knockoffs and the store brands that are similar to it.

I won't name that product, of course, but what it does is it wipes out or it certainly shifts that oral microbiome, these bacteria and microbes that, you know, are part of the sinus cavity or part of the mouth.

And as a result, it's been noted and published in peer reviewed scientific literature that without those nitric oxide producing bacteria, there's an immediate rise in blood pressure.

So it really tells us that, you know, even in the spectrum of gut health overall and of course the oral cavity as part of digestive and gut health, that there's really a spectrum where, yes, there are bacteria that contribute to gingivitis.

And some even think that that bacteria, that very same bacteria contributes to the risk of Alzheimer's disease that's been looked at. There's actually a clinical trial to see who could prevent Alzheimer's by targeting that specific bacteria.

So that's called bad bacteria. But then there can be good bacteria. And then, of course, on the other end of the spectrum, we can have a more aseptic, I suppose, oral cavity where we just wiped out the bacteria to a great degree overall.

And just like the lower digestive digestive tract, when that happens after repeated use of antibiotics and there's a potential deadly disease called C diff colitis, you can have serious problems by wiping out the oral microbiome.

I am. Absolutely. Yeah. I would say it makes as much sense to say, well, I feel sick, my stomach hurts. I'm going to go take three antibiotics and wipe out all of my gut biome.

That makes no sense at all. And hopefully people have learned now that that is not what you want to do. You need that bacteria in your gut. It gives us so many other benefits, well, that it makes as much sense to do that here, to just wipe everything out.

It's impossible to sterilize your mouth. You're going to have some type of bacteria. And really the bad bacteria, the ones that we're all trying to fight against, and some take it to the nth degree.

Those that's just a small group. The rest of them, there are many bacteria in our mouth that give us so many benefits. There is even a type of bacteria that's been shown to prevent decay.

So it actually keeps the bad bacteria from coming in and eating into your teeth. So you have a biome here and you need that bacteria wiping it out Isn't the solution.

That just sounds like the the medicine type approach would give me something to rinse that will just clean everything out. A sepsis is fantastic when we're trying to do a surgery, but if you're just living life, you don't need to eradicate everything.

You need those partners. What can we do to best take care of that if. Don't breathe through your mouth. Look, you breathe through your mouth. You dry your mouth out and it changes that oral biome.

It does so that that kind of bacteria that live well in that environment are the bad ones. So that bacteria, let's say there's two two classes, there's the cavity causing and they love acidity and it only helps them win the war against the good kind if you breathe through your mouth and dry things out because you're removing your saliva and saliva isn't water, it's you spit it, it's all bubbly.

It has a lot of chemistry going on in your saliva. It's not just plain water. So but it does dilute acid and it does fight against the acid. So if you're breathing through your mouth, you immediately limit the saliva in your mouth, raising the acidity level, and you put yourself more at risk.

And amazingly, again, not to name this company, but the mouthwash companies, a lot of them put alcohol in their mouthwashes and alcohol has been shown to dry the mouth out further.

So it's it's like it's causing the problem and they're going to help you fix the problem that they're causing. And of course, my dentist tells me, you know, you never got to brush your teeth.

I go and I do brush my teeth, by the way. But I come home from my preventative dental appointment with the, you know, a bag of goodies with a toothbrush, some toothpaste, some dental floss.

And I'm sort of, you know, guilty of not consistently flossing. I know I should be, but, you know, these quote obvious things yet why are they important?

I mean, what's happening when we don't brush our teeth or we don't floss or that kind of thing? Well, brushing the the main thing they've shown it with brushing your teeth is the toothpaste gives you the best benefit.

So the toothpaste itself, the brushing, you're just trying to start brushing and flossing is basically the same thing. They just attack different areas of they're treating different sides of the teeth.

I mean, floss and brush. That's all low tech stuff. All you're doing is stirring up that bacteria so that it can't create a colony. Because when you create a colony, which is the fuzziness on your teeth, that's where the bad bacteria can get a foothold.

So it only takes about 12 hours for that gum disease causing bacteria in that. They call it biofilm. You know, the stuff that sticks to the teeth within 12 hours, It's already starting to pull calcium from your saliva and start to harden and attach itself like barnacles on a ship.

And all of us need to go see a dentist regularly.

Tooth Brushing, Fluoride, and Toothpaste Ingredients

I have every tool at my disposal and I'm aware of them all, but I still have to go lay in the chair and have the hygienist, you know, scrape that barnacle stuff off.

So brushing, flossing, that's really just to stir bacteria up. It doesn't kill anything. So we're not trying to, but the fluoride will put a coating on the teeth and that coating makes it so that the acidity level has to drop another level and other acidity has to go up.

It's a logarithmic scale, so it's by a thousand and has to go up a lot stronger in order to dissolve away the teeth. So fluoride is what really prevents decay.

So what I would tell people is you don't need a lot if you use a little bit of toothpaste brush, spit up the extra, Don't rinse your mouth out though.

Just leave it tickler when we don't necessarily have to name brands per se, but when I'm looking at toothpaste, say in the supermarket where health food store, where there are certain ingredients I should be saying or not, or avoiding, I mean, this is a holistic health summit.

There are folks that want to brush their teeth with clay based products, as with baking soda. Yeah. What are your thoughts there? I would say three things to stay away from, but you know, I'll name four because I don't think you should use clay, but we'll kind of group that with baking soda.

Anything abrasive isn't a good idea because really all it's doing is any kind of protection you had there before. It's removing that because it'll remove outer layers of your teeth and over time you'll get that wear on the teeth.

So baking soda, it's not helping you as much as you think, but it does take stain away because it's like brushing your teeth with sand. It'll take the stain away.

So you want to stay away from all abrasive type stuff, clay baking soda. Also stay away from activated charcoal. I know they say that, you know, activated charcoal is supposed to trap bacteria, but the activated charcoal isn't giving people the benefit that they want.

It's really just a gimmick. And that is my opinion. But from what I see, it doesn't really work that well. And then the other thing to look out for is you do want to have fluoride, but you don't want to have necessarily something called lauryl sulfate.

Lauryl sulfate is Hanzo. Oh, so the people like their toothpaste to foam. And so that's why the big companies put that in there. But in my family we have the sensitive skin.

My wife and children all have red hair. They they have sensitive skin so that lauryl sulfate does something to the gums. It makes their skin more inflamed.

So I would say stay away from the lower law of sulfates, but it's not necessary. Really. The most important element is the fluoride. If you get the fluoride on there and make sure you don't rinse it off because it will work up to 2 hours, putting that coating on there that protects you from the bad bacteria.

Excellent. So to your passion about sleep, let's talk about how we might recognize poor sleep. Recognizing poor sleep. Well, I'll tell you first, how do I recognize it?

And that'll help you see, because, I mean, we all look at our teeth. We want our teeth to look nice. So here's how I recognize poor sleep as a dentist.

When somebody comes into the office and I look inside their mouth, there are certain things that I see like one of them is they'll have tongue scalloping, we call it.

In other words, it looks kind of like they've been chewing on their tongue. They just have the tongue shape or excuse me, the tooth shape in the edge of their tongue all the way around.

And that's caused by the body trying to push the tongue up against the teeth during the day, flexing it against the teeth in order to release better. So that's a sign something's going on in the sleep.

And then I mean, we mentioned this a little bit before, but if I see lots of wear, then I know that's probably it could be happening during the day, but probably something's happening at night because during the day, unless you're somebody that eats all day every day or your drink soda completely all day, or there is a gentleman I met one time that just had three lemon trees and he had lemons all day long.

He had worn his teeth away very a whole lot. So besides the extreme cases, if I see wear on the teeth that I know something's going on. And also if somebody feels muscle pain in their jaws, most of the jaw problems that people complain of, they call it TMJ.

That's the joint temporomandibular joint. But TMJ or TMD, really the disorder, that means something's going on in the muscles. Usually. Usually it's not bone changes.

It takes a long time for these joints to change as far as the bone goes, but the muscles being sore, that's not a good sign. So if you think about it, if you exercise, let's say you decide you're going to be a bodybuilder and you just going to start lifting weights.

If you're getting good restorative sleep, you'll feel sore for a couple of days, but you won't be sore for weeks on end because you're recovering. As long as you're recovering, then the muscles will bulk up, but they won't stay sore well up here, if you have sore muscles all the time in your jaws, that's not a good sign.

That means these you're not getting restorative sleep and these are probably the ones that are working all night long. So that's one of the ways I can tell if somebody, especially on the inside, there are a couple of muscles way in the back.

If those are sore to the touch, I know they're grinding their teeth at night. So that's one of the ways you can detect poor sleep. Do I wake up with sore muscles or do I wake up with headaches?

Oh. Sometimes we just live with that kind of stuff because it's small. Take somebody appropriate or take some Tylenol and be done with it. Just move on.

But if it's happening day upon day or frequently, three or four days a week, yeah, there's something going on with the sleep. Definitely. And for the folks who are watching this, I also think about the and we're going to get into sleep apnea right now, but the low oxygen that goes along with that and then waking up with a headache.

So, yes, it can definitely be that, you know, overworking of those muscles and be more of a tension type headache. But if you're dropping your oxygen saturation over and over again cumulatively adds up to a long time as you try on your breath for 10 minutes, like, no way I would die.

Well, you do that when you're sleeping, Believe it or not, if you have severe sleep apnea and yes, you will wake up with a headache.

Signs of Poor Sleep and Sleep Apnea

And that's probably the tip of the iceberg, because who knows how many brain cells have been killed and how much coronary ischemia you've had in the meantime while you're holding your breath.

So very, very serious. And not just that, like I was just reading the papers that deal with Parkinson's. Parkinson's runs in my family. And and there were some papers, research papers that were saying there's an association between the hypoxia.

They didn't call it sleep apnea. They're not relating it to sleep apnea, but just hypoxia, lowered oxygen and the development of the Lewy bodies. Yeah, and alpha synuclein.

So we recognize that sleep apnea, for example, is a major risk factor for Alzheimer's disease. What you're saying is it's a major risk factor for Parkinson's, probably quite a few other chronic neurological conditions.

Folks come to me because they want to investigate the root causes of their condition and address them. And there are a few things that are more straightforward and sort of in our face, excuse the pun, then the treatment of breathing disorders of sleep.

Yeah, exactly. So so that's why I call it breathing disordered sleep instead of sleep disorder. Breathing sleep disorder. Breathing is like the catch all term, but really, that makes it kind of sound like the sleep is is messing up our breathing, sleep disordered breathing.

And it's not that we all need to sleep. That's the natural state. The unnatural thing is when the breathing is disorder in the sleep, it's fragmenting.

The sleep is a word that's used a lot in the literature. So if our sleep is being fragmented all night long, we don't get that restorative sleep. And at the same time our oxygen is dropping repeatedly, right?

That kind of thing. It's the repeated stuff that's happening night after night. Those are the things that cause the chronic conditions. I want to share that your comment about the scalloped tongue is so interesting to me because I see it frequently and I've really never put all of that together.

But by analogy, there are different indications to send someone for a sleep study. Of course, if their bed partner is observing episodes of that person's stopping, breathing or shallow breathing, where if you're waking yourself up, choking or gasping for air, those those are important clues.

But another one is if the person's on more than two blood pressure medications, that's an automatic insurance approved indication for a sleep study. Whether you think you have a sleep problem or not.

Which leads me to the question of, you know, as a clinician, when I look in someone's mouth, it's part of the neurological examination and see that scalloped tongue.

What do you recommend to me, to other clinicians or at least the person who's looking in the mirror and, you know, sticking their tongue out and, well, my tongue is scalloped.

What should their next step be? Should they go to you? Should they go to a dentist to evaluate that question? Because there are dentists that kind of specialize in airway stuff, But you're a dentist may not be one of those.

In other words, it's taken a little bit of time, but here I've been able to develop a network and I know how to get people connected with getting a sleep test done quick.

So sometimes the especially in the last couple of years, not just from COVID 19, but there was a an equipment specialist that had a big problem with one of their machines and it ended up throwing the entire system behind months or years.

So so I would say in the past three years, people have really struggled to get sleep tests done quickly and nowadays it's starting to ramp up again. But the next step would be to get in contact with your physician.

I would say and say, look, I have these concerns. I see this on my tongue and I think I need to get, you know, other

things are happening. I would never say, well, your tongue has scale up.

You have a problem there. Usually there are multiple signs that go along with it and and then go get evaluated through your physician. They'll have a contact to get tested.

Now, nowadays, it's it is much easier to get tested because there are home sleep tests that are fantastic. Now, an in lab study where you actually have to go to the clinic, stay the night, get hooked up to all of these leads and it's uncomfortable and you'll feel like it's the worst night's sleep.

But they're going to get the data that they need. That's good. If it maybe if you need some neurological stuff evaluated, it picks up other data. But if you're trying to evaluate yourself for the loss of oxygen and sleep apnea, the home sleep tests are good.

They will it will get it done. So, yeah, through your physician, that's probably the best way to go. If you go to your dentist, they'll scramble a little bit maybe, and then you would need to find one that more specializes in it.

So you're saying if you see the scalp turn, think about other things that might also be associated with that right? Are you a mouth breather? Do you snore?

Has your bed partner observed you to stop breathing in your sleep or choking, gasping for air, whether you remember it or not, Because there's a doctor who's looked at many sleep studies.

We use the term arousal and you can have, you know, 100 arousal through the course. The night person has no recollection. Arousal doesn't is an equated with full awareness or full conscious smartness, but it's a disruption of the normal sleep architecture.

Yeah, that's correct. And there are a lot of things that go on in our body that we don't we are not aware of. And I was just talking to an ear, nose, throat specialist and he said, everybody says they breathe fine through their nose, but then they go in and examine the sinuses.

And many, many times they're just packed, they're completely occluded, they're congested, they can't breathe through those sinuses. So same with sleep.

You don't know what you're doing when you're asleep, you're unconscious. So unless somebody observes you, if somebody observes you, stopping breathing, it's time to go get tested.

You don't need to wait for any other evidence that means something is going on. But I think it is good to say there are two areas here. There's the sleep apnea, and then there's something called upper airway resistance and then there's snoring. That's another one.

And they all kind of overlap each other. So you could have multiple or all three the sleep apnea in order to qualify as sleep apnea, where you stop breathing and your oxygen drops for 10 seconds.

Well, then there's all the events that happen that are less than 10 seconds and you're still going through a two different things hormonal changes and lots of things that aren't good for the body.

They wear the body out. That's the upper airway, airway resistance. That's the arousal area where your your body is not waking completely, but your muscles are getting turned back on and you're jumping out of the sleep mode and it's fragmenting the sleep.

So so you want to go get evaluated. But the apnea, if somebody sees you, stop breathing for 10 seconds. Chances are you have other stuff going on. What we're hearing, folks, and just to be absolutely clear, the word apnea means to stop breathing altogether.

But you can have shallow breaths or difficulty pulling that air through and that can be just as serious potentially,

and certainly warrants attention.

Now, a lot of folks think about sleep apnea and they sort of look down at their waistline and they say, hey, I know sleep apnea is associated with carrying a little too much weight around, but in fact, that's not always the case because it isn't necessarily the belly fat down here this size.

It, you know, your girth. That's a risk factor that is important. But we're saying that there are factors that are sort of from the shoulders up the neck, the jaw, the oral cavity.

Is that correct? Yeah, Actually, thank you for asking about this, because I screened patients for seven and a half years and I would say the amount of people that were overweight that ended up having an upper airway issue were very small.

The small percentage, maybe 5%.

Testing and Treatment Options for Sleep-Disordered Breathing

The other 40 to 45% of people that came back and had an airway issue that I screened in my dental office, they were fit a lot of times. Or they you know, they weren't overweight by any description.

So so there are other things going on that caused this issue. And unfortunately, it is progressive. So more and more it's being shown that if you have this upper airway resistance and you do nothing is one option.

If you do nothing about it, over time, it'll turn into the sleep apnea. So you can kind of think of it over here. Your body is really trying to manage the breathing situation, but it gets worn out and over time it starts to switch to, well, let's just shut things down for a second and 10 seconds, go by and then you have an APNIC event.

So it is progressive. You want to you want to catch it early. Absolutely. So we're going to catch this early. And folks, this isn't just about what caused your Parkinson's disease because we talk a lot in the brain Up program about changing the trajectory.

And that's really what the Solution summit is about. How do you change your trajectory? You have to stop that pattern that may have gotten you here in the first place.

As Dr. Bradshaw was saying. Is it you know, fundamentally, yes, it's about getting oxygen to your lungs, to your bloodstream, to your brain, to your heart, to your kidneys and so forth.

But it's also about all the other systemic changes that occur your immune system, your mitochondria, your hormones, all of that, even your microbiome is affected by sleep apnea.

So if you really want to alter how this course of Parkinson's disease can go for you, you're going to have to address that sleep apnea. Now, I want to sort of fast forward just a little bit, because as we get toward the end of our interview, there's a couple of things that are super important that we want to get in and that, you know, we've talked a little bit about the testing and you can do that in a lab.

You can now do that at home. That's probably the majority of the sleep tests that I order now. They're very inexpensive. In fact, the out-of-pocket costs for a home sleep study is generally less than what your insurance would bill you after they pay for.

It's just a few hundred dollars, including the interpretation and from the doctor. But then folks are going to say, Oh, but that machine, that machine, I don't like that machine that I have to wear.

And that's called continuous positive airway pressure. In other words, that's the machine they're talking about, CPAP. There are other types which are a little probably beyond the discussion for today.

But if you have sort of garden variety obstructive sleep apnea and you know, the doctor says you need CPR, first of all, it's important to understand what is that machine actually doing, because people call it a breathing machine.

Well, it's not breathing for you, right? There are machines that assist with breath, but this type of machine does not. We want to think about the air that would say hold that the walls of an inflated balloon open because that machine is providing anatomical air pressure to create anatomical changes within that upper airway to allow you to breathe on your own.

And it has to be paired with a mask, we call it. There are different types of masks, but I want to reassure folks who are so many types of masks that if you're afraid of CPAP because you don't think you can wear the mask because you think you're claustrophobic, talk to your respiratory care company to find the mask that's right for you.

Some just go over the nose, a little pillows in the nose and grow up over the head so you can find a mask that's right for you. You can get a chinstrap that helps you close your mouth.

However, what do we also want to be thinking about? If just if CPAP isn't right or there's alternatives to CPAP? Dr. Bradshaw, can you talk about the oral appliance?

Yes. Yeah. Thank you. This is so in the past, the CPAP machine has been considered just the gold standard because it will open everything up, it'll push air in, it opens up all of the airway and it allows the air to pass in and out.

Now, if the is caused by the jaw position, one variable here and if we can move the jaw slightly forward and we're talking millimeters, it's not a lot than that because the tongue is attached down here, it'll lift the tongue off the back of the throat and just one or two millimeters change just opens up the volume back there and makes it that much easier to breathe.

So an oral device is it's a retainer that you wear on the top and bottom, and they're connected somehow, and then it moves the jaw slightly forward. So an oral device now is considered a first line treatment, just like CPAP for mild and moderate sleep apnea.

And I would tell you also for upper airway resistance. So it's a way just like the CPAP machine, it doesn't it doesn't permanently solve anything. What it does is control the situation.

An oral device also can control the situation. And there are other options out there that do that same thing. The Inspire surgery, for example, where somebody gets an implantable device on the right side and it's a hypoglossal for tongue.

In other words, the lead goes to the tongue and it flexes the tongue forward. Another way that you can flex every time there's a breathing effort. And then that also holds the tongue forward.

Now, that currently is only being used for somebody that has severe sleep apnea and meets the requirements. So somebody whose body mass index cannot be too high. But these are control strategies.

You could think of. We want to control the situation, get the sleep apnea under control, or that upper airway resistance under control. There are also resolution strategies.

So if somebody has very swollen adenoids in the back, an ear, nose, throat specialist could recommend maybe to have those the inflammation get taking taken down or is it especially if it's chronic respiratory allergies, There's something an acronym called SLIT Sublingual Immunotherapy.

That's fantastic. And it's not very expensive. For a few hundred dollars a year. Somebody is able to get drops underneath their tongue that that desensitizes their immune system to those respiratory.

And if that's the reason why the adenoids are swollen, well, that's a lot better than having them removed surgically.

So so there are other options out there.

CPAP isn't the only option. So alternatives to CPAP, but also the oral devices are considered a first line treatment now for mild or moderate. And practice breathing through your nose. Yes.

Yeah. In fact, there's it's Eastern medicine, Buteyko method that deals with helping people breathe through their nose. B U T E Y K O And it involves people actually putting you might have heard of mouth taping online.

I don't recommend sealing your mouth shut with tape but just a vertical piece of soft tape can help somebody teach themselves just to breathe through their nose.

Wow. Well, Dr. Joseph Bradshaw, you specialize in the oral appliances, among other things. So if someone wanted to reach out to you, tell me a little bit about what that looks like.

What can you do in terms of an initial consultation and then providing that service to them. Initial consultations, we provide those complementary and really that's because so many people come from different areas and we want to kind of help them get on the same page.

So we do specialize in oral devices, but our company is Bradshaw Sleep Solutions.

Bradshaw Sleep Solutions and Closing Remarks

So really it's using the networks that we have to get people connected with those they need to see. So if you need a sleep test can help you get that done.

We don't do that. We do those here. I'm not a sleep physician, but we can help you get that done. We can help you get connected with ear, nose, throat specialists, with neurologists, Dr.

Sharlin and cardiologist, if that's what you need. A lot of times those sleep tests will pick up other things and you need to have a place to go. If You're not currently connected with the specialists you need to see.

So if somebody wants to get ahold of us, they can email us. You don't necessarily have to have a referral. We can seek all of that stuff afterwards through your primary care physician or through a cardiologist or your cardiologist or somebody that you already see.

So our email is BradshawSleepSolutions@gmail.com. That's BradshawSleepsolutions@gmail.com in writing that one down well thank you Dr. Joseph Bradshaw this is really engaging conversation I hope some time we can pick up where we left off and continue the discussion.

There is so much to learn about the mouth and nose, the oral cavity, the nasal oral cavity that teach us teaches us about our health. You know, there's that old expression.

The eyes are like the windows to the soul. And I have heard that the mouth is really the key to understanding health overall, whether it's your brain, whether it's your heart.

It is so important. Take care of your mouth take care of your teeth, folks. And if nothing else, just breathe. Yes. Thanks so much Dr. Sharlin Thank you.

You've been enjoying the Parkinson's Solutions summit. Stay tuned for more outstanding interviews, folks. Thanks so much for tuning in.