Introduction and shared background

Dr. Ken Sharlin, welcome to the Parkinson's Solutions Summit. I hope you've been enjoying this summit so far. And we have a wonderful interview today with Dr.

Jose Colon from the Central coastal Florida area near Fort Myers, I believe. Yep. And he's going to talk with us today about sleep medicine, about sleep and Parkinson's disease.

And Dr. Colon and I actually have known each other for quite a long time now with a mutual interest in functional medicine, neurology, training at the same institution, Vanderbilt University.

So we have some common friends. And Dr. Colon is going to tell you a little bit about himself. And he has so where so many hats is so multi-talented. And I want to mention that one of his real passions as a pediatric neurologist is children and children's sleep patterns.

And you may think that maybe is an unusual segway into Parkinson's disease. But, you know, in functional medicine, we talk a lot about triggers and mediators.

How did we get here and what's keeping us on that trajectory? And I think it's so important to really talk about the foundations of sleep beginning in childhood.

So I think hopefully my the viewers will all agree. But without further ado, Dr. Jose Colon, welcome to the Parkinson's Solutions Summit. Thank you for being here.

No, thank you for having me. You know, it's funny, you talk about antecedents, triggers and mediators, and I like Star Wars. Do you like Star Wars? Are you Star Wars guy? Well, I'm.

But I am a Trekkie, I must say. It's like dogs or cats. I like them both. But I'm a Trekkie at heart. I got to I got within the series Anakin Skywalker when he was going through Jedi training school.

He had quite a bout of insomnia. And I do believe that Young Anakin would have had my children's book. He would have never turned to the dark side. There you go.

That's what it's all about. How did you get interested in neurology and functional medicine and then Segway and a sleep medicine had it all come together for you?

You know, Ken, my life is a series of accidental opportunities and there's an old saying. Luck is when preparation meets opportunity. And that's that's.

That's what I've been worked hard and opportunities have come up. I went to medical school to be a general pediatrician. That that was my my passion and my calls.

My dad was a pediatrician and he didn't tell me to do this, but I grew up watching him love what he does, and I enjoyed watching him do what he does. So I got into medical school and then I did my my pediatrics rotation and I couldn't give parenting advice when I wasn't a parent.

I just I couldn't do it. And I said, no, this is this is not me. So I had to think of like a specialty. And I took my neurology rotation. Fourth year medical school, we were required to take it and I took it early to get it out of the way with, and I fell in love with it and my paradigm changed and I was like, Oh my God, now I'm going to do something else.

I've been training for this, but I'm going to do something different. And I learned that that if you were to do child neurology, that you would do pediatrics training and then neurology and then child neurology.

How Dr. Colon entered neurology and sleep medicine

And I was like, Man, that's cool. But we didn't have a program at USF. So I had this mentor in Tampa, Dr. Parrish Winesett that people told me to talk to him, and I did.

And we flew up to Nashville together, uninvited, you know, uninvited. We flew up together and we tour. And that was the first time that I met Dr. Garcés.

Well, and and I remember just meeting everyone and they were like, Oh, hey, nice to meet you. And, you know, we don't have any spots available, you know? And again, I was just there just just turning, you know, checking it out.

And then at the very end of the day, I sat down with Dr. Finish, wrote the textbook and child neurology, and I could still hear him. I could still hear his voice.

Yeah. And he told me that one of the fellows that was supposed to be for the upcoming year pulled out and decided that they wanted to do intensive care.

So I went up there uninvited and I got offered a spot. Wow. You know, And I was like, Wow. Okay. So that was my next step in my journey. I was going to be a pediatrician now.

I was going to be a child neurologist. And I got to Vanderbilt and over there the Department of Sleep Medicine was through the Department of Neurology, and I just fell in love with it.

I mean, the first time that I was reading EEGs and I saw Sleep Spindles, I was like, Ooh, those are cool, you know, and I don't have any tattoos, but if I did, they'd be like little sleep spindles and rapid eye movement problem, you know? And then I was looking for a position as I was graduating in child neurology, and I was Googling positions while I was on call waiting for an admission.

And I saw Fort Myers. Okay, that's near Tampa. I know where that is on the map. Let me check it out. And I told my wife, you know, at these opportunities and we wanted to go to Tampa, and I told my wife, I'm like, listen, we could have you know, this great opportunity or Fort Myers or we can have a good life, you know, in Tampa.

And when I came down and visited four or Myers and I saw the opportunity go, hey, we can have a good job and a good life over here in Fort and Fort Myers.

So I started a practice in child neurology, but also was doing sleep medicine. And I started writing books as well. And one day I went to my Happy Place, which was Barnes & Noble and I was going to I was going to write some, saw some books and out of the corner of my eye, I see brain.

I see brain. And as a neurologist, if you see a brain that's like a teenager in a bikini, whoa, your eyes go straight there. So I was like, You have a brain.

And it said grain brain. And then I looked under and I said, Dr. David Perlmutter. I go, Hey, I know him as the guy in me, you know? And for a while he would order an EEG on a kid and I'd be like, Hey, this is pretty abnormal.

Do you need my help? And he's like, No, I'm good. I'm okay. I didn't know what he was doing, you know? I just know that that he was down there. And every time I talked to him, he was very cordial and very, very nice.

And I read and I was like, Oh, my paradigm just just changed. And and then he I reached out to him and I was like, Wow, you I want to know about what you do.

And, and we had lunch. And he told me that if I was interested and learning to go through the the Institute for

Functional Medicine and I did, I never looked back.

And currently I am practicing sleep medicine full time. I still see some child neurology in the hospital. I am triple board certified in sleep medicine, child neurology and also lifestyle medicine as well.

That's another journey of accidental opportunities. And also is I a pharmacy piece so and I was nutshell of of of trust me there's there's a lot more.

That's such a wonderful coincidence and convergence of things yeah I actually it was David Perlmutter is green brain that was a huge turning point for me as well in terms of what I was doing at that point in my life.

And, and I was very involved with endurance sports, triathlon. And so I was already seeing nutrition and stress management, things like that play a huge role.

Of course, the restorative powers of sleep. But I was going to the office every day being the conventional neurologist, right in the scripts, which were Band-Aids over a problem and feeling very disgruntled and discouraged that I really wasn't helping my patients get better.

But also I was seeing transformation in my own life and wondering how it could be sort of translated into what I was doing in the office. And Dr. Perlmutter, whose book was absolutely the pivotal point for that.

So that's that's a wonderful coincidence. Well, let's let's talk about sleep and just start out by covering the basics of sleep health. Sleep up, would you agree is so much more than just a time of rest.

You know, so you have different parameters. I mean, your brainwaves are different, your heart rate is different. You've got functional MRI, things that are that are different.

No, sleep is not just your eyes being closed. I mean, that could be coma, that could be death daydreaming. You know, we spend a third of our lives and sleep.

And if it wasn't made to be important, to be an evolutionary blunder, know the caveman getting hunted by the saber tooth tiger. But we do go into different stages of sleep, and we have this deep sleep in the first half of the night.

The growth hormone is secreted and also where we lymphatic system and we replenish our brain and wash out toxins. And then every 90 minutes we get a REM period where we dream, even if you don't remember your dream.

But we're restoring memories and we're making memories. You know, So it does have biochemical and electrophysiological properties. So it's not just your eyes.

And what is the optimal amount of sleep a person should get. You know, I like things that are easy to remember.

Sleep basics and healthy sleep duration

Okay, so a 12 month old should get 11 plus 11 hours of sleep, plus one that a ten year old should get about 10 hours of sleep. So school age, a ninth grader through high school should be getting about 9 hours.

So teenagers, nine when you work your 8 to 4 job is adulthood. We should be getting about 8 hours of sleep. In your seventies or into your elderly. You should be getting about 7 hours of sleep.

Plus your introduction of all of these that I said are plus or minus an out. It is very difficult for some people to even contemplate getting 8 hours of sleep, as I suggest, you know.

So I like to instruct adults to shoot for seven, but to understand that the definition of chronic sleep deprivation is chronically under 6 hours. Now, this is important to instruct because people are losing sleep over sleep.

Seriously, some people have difficulty sleeping because something's bothering them, and what's bothering them is that they're not asleep. And I see it in my sleep.

When I had someone today, you know, she's she's sleeping 7 hours. She wants a sleep medication because she heard that if you don't get enough sleep, you're going to get Alzheimer's.

And she worries about getting also positive and it's keeping her up at night, you know, So I have to go over these these numbers and say they're plus or minus and look, you know, shoot for seven.

But remember, you know, as long as we're getting more than six, you know, hey, that's that's okay. Yes. And to be clear, that chronic sleep deprivation is a risk factor for Alzheimer's disease.

So it is important, but we've got to give ourselves a little grace. That's what I'm sort of hearing about the. Exact exact. Now I sleep with my Apple Watch and I use a couple of apps to monitor my sleep.

Of course, this is not the same thing as going to a sleep lab or even having an at home formal sleep study, although usually, I think most of the time the ambulatory study is don't measure brainwaves.

What I'm getting at is can we talk a little bit about stages of sleep? You've touched a little bit on REM sleep. That's going to be really important for the Parkinson's folks.

What are the stages of sleep and is it even reasonable to be monitoring our sleep with some of these home where consumer level sleep devices, whether it's a ring or a watch things?

Yeah. So I like I like the wearables. And a lot of physicians will tell you it's junk or don't do it because they don't know about it. One, it's not a validated two, you know, so it's not the end to I have my ear, I don't go to sleep, put it on my head, you know, So it's it's on your, your, your wrist or on your, on your finger.

So it's it's not measuring brain activity, but what it does is that it can monitor movement. I mean, that's how we get our steps, right? You know, our 10,000 steps is monitored by moves.

So it can monitor movement and it can monitor heart rate and now even sometimes oxygen. So when there's less movement, if it believes that that's a surrogate marker for sleep opportunity and then it measures your heart rate.

And during the deep stages of sleep, your heart rate is really slow. Every REM period, your heart rate accelerates and it maps out a surrogate marker based on that brain activity.

But physiological functions should be noted that these wearables are about 70% accurate and also that they are more geared and designed towards the consumer, of which 60% of those consumers are middle aged females.

So it's it's through their biology. And, you know, I have saying some health and if you look the logo is actually a female with a ponytail. Yeah. You know so I like them because I wake up and I look at my sleep every, every day, just as as a surrogate marker.

And they're, you know, they're nice and they're moral handy for looking for nighttime variability if you're instituting a certain treatment or you're congested or you know that they're good for for for monitoring, not for diagnose. Yes.

I don't know about you and I'm not by the way, folks, we're not advertising one app or one device for the use Android, whether you use Apple, whether you use a ring called an or a ring as to just be the right one for you.

I personally use two different sleep apps because they give me different results and I try to gauge I sort of shoot my arrow through the middle and say, well, the truth is probably somewhere in between.

But I do use one called pillow, and then I use another one called auto Sleep. And I must say I do like auto sleep because not only does it give me all those sleep stages and duration of sleep, but it shows me heart rate dips

through the night, which I think is important and valuable.

Normally, your heart rate should decrease fairly substantially 15, 20% or so. And if it's not, it may be a surrogate marker even for underlying coronary artery disease.

And then it looks at another important measure of the stress system of the body, our bodies, normal biological stress system, and how we kind of navigate through that on a moment to moment basis.

And that's called heart rate variability. So it's very interesting, you know, if I'm well-rested, if I've had a restorative night of sleep, my heart rate variability, of course, is better when I've had a stressful day at the office, I suppose, or whatever, and not to sleep altogether too late and woke up too early.

Not surprising. My heart rate variability is much less and you know, it kind of gives me that readiness for the day but also tells me what maybe I need to think about, you know, the next day, the next night, and getting to bed a little bit earlier and working on that.

Wearables, sleep stages, and sleep tracking

So we often turn to a kind of a broad concept called sleep hygiene. I it's sort of I think it's somewhat simplistic, but perhaps we can walk through that as in kind of an intro to how folks can improve the quality of their sleep overall.

And please, if there are aspects of what we broadly call sleep hygiene that are more valid than others, whether it's, you know, taking a warm bath or drinking a glass of milk, which I'm not sure if that really does anything at all.

But could you talk a little bit about sleep hygiene in general and if that's a good approach. You know, so sleep hygiene alone has been shown to be ineffective.

You know, giving someone a set of instructions actually is commonly used as a placebo in different trials. And I'm not saying that it's not important.

I'm just letting you know that sleep hygiene alone has been shown to be ineffective for. So what I find is that explanations are more important than than instructions.

And I'll I'll get, you know, a team that is on the phone at night. I'll get an adult that can't sleep in their bed, fall asleep on the couch. You know, And I and I kind of talk about these scenarios and I'll ask a patient, hey, you know, do you drive and first of all, I let them know, hey, listen, I'm going to ask you some questions and and they're not hard.

Okay? Start out things yourself. Yeah, can do. Do you drive? I drive. Yeah. Okay. Yeah. Easy, easy questions. Now, when you drive, do you think subconsciously that you're trying to fall asleep or you're trying to stay awake and alert?

Well, the opportunity for sleep generally does not enter my mind if I'm driving unless I really am sleep deprived and I know that's a dicey situation.

But I've had I have run into that where I've had to kind of push my nail into my finger or something like that to say, Hey. On the radio. Yeah. But so.

So when you found yourself dry, drowsy, you did something. So you're not trying to fall asleep when you're driving. You're trying to stay alert, right? That's okay.

All right. When you drive, do you sometimes listen to the radio? Sometimes. Okay. Yeah. So can you see how subconsciously you're learning to associate that radio with with alertness?

And we just gave the example. If we're tired, we turn to radio. That makes sense, right? Yeah, right, Right. All right.

Well, let's just say that we are in bed and we're not asleep.

Can you see how it would be a bad idea to listen to that same radio station that keeps you up. At night. That, you know, that stimulus control, that's Pavlov's dog.

It's ringing a bell and giving a dog food. It associates the bell food, you know, So that's a learning activity. So now I ask, you know, the teenager or the patient, do you get on to social media, check your email.

Are you want to talk? Because those activities are boring or because they're mentally engaging? And I'm not asking you if you're bored when you do that.

Is the activity boring or mentally engaged? They're like mentally engaged. You know, so many times they're in the clinic and the phone made a notification, Hey, when you got that notification earlier, did you yawn or did you check to see what it was?

Did we all look at And they're like, Yeah, yeah, we all we all look at. So that's that's where, you know, we try to do what we can to, to reduce activity that is, that is mental.

Sleep hygiene and relaxation strategies

The engage and that's where we power off electronics. We give ourselves a certain time to where we, we're doing things that relax our brain, that allow our brain to relax.

Same thing goes with TV, ideally. And we tell people, you know, our off electronics, including TV, is going to do that. People watch TV before they go to bed, which is what we do now.

I look for anyone who knows me, knows that I am avid football fan, I'm a football coach and I can't stand when my team, the Buccaneers, when they're on on Monday Night Football this year without Tom Brady.

Luckily, we're not going to have any money left, but when they play night football, my brain is wired, it is wired and I'll watch the game. And then afterwards my brain is still wired.

I have to go through my schedule, you know, when the football schedule goes and block off mornings after after a night game, because I know I'm going to be packed. Now, that's different than sitting down with my daughter and watching whales on National Geographic or watching something about animals or you know what's funny?

You said you're a Trekkie. Well, I actually didn't watch Star Trek at all growing up. And then when I was in med school, I had this strict regimen where I would workout, I exercise, I'd study, and I was exhausted at the end of the day.

And that was at time the Star Trek Voyager would come out. So I would watch Star Trek Voyager and I would remember the end because not because it was cold, boring.

But I wasn't. It wasn't something that I watched in the daytime, but it turned to me into like a bedtime story. So sometimes if, if, if, if I'm not asleep, I'll look for a Star Trek episode of some type because it's it's calming to me.

It's soothing to me. So when when we talk about sleep hygiene, giving a patient a set of instructions that they don't want to do that they already read before isn't as helpful as peeling back the layers of the onion and explaining, you know, why and what we're doing to our brain.

The the milk thing is, is is the milk doesn't know commonly what people have said is warm. Well, why? Because it's hot. We have to blow on odd parasympathetic response there, you know.

So as you inhale sympathetic stress, as you exhale, your heart slows down. And doing things that that elicit your parasympathetic response are also helpful for your sleep.

Right. And I've even read that it's not the hot bath, but it's actually the evaporation from the skin and the cooling of the skin surface that may be helpful.

Let's talk about that. Let's talk about that. So people go to the beach and everyone's exhausted after the beach, right? And what they say is, oh, my God, the sun takes out my energy, doesn't the sun gives you and the sun is increasing your core body temperature while the sun is out there.

You're not yawning. What happens is that you leave the beach, you leave the sun, you go into the shade, you have a cool drink, you have the air conditioning, you got a draw in that body temperature.

That's what is sedating is the drop in body temperature. So we have at our home, the thermostat is at a certain degree in the daytime, but at night we put it a little bit cooler.

I just had a patient today and he's like, I think that I don't sleep because I shower right before I go to sleep. And that, you know, makes me, you know, wakes me up and I'm not actually, you know what?

It can help you can help you. Now, the cooling that I gave the sun example, I was like, listen, next time you shower, we show it, right? Okay, so do that.

But then right before you get out, cool the water put it that you doesn't have to be ice cold. The cool it. How so? You start that process of the body temperature decreasing.

Wow. Well, let's dive into Parkinson's disease. There's a few common sleep related problems that folks with Parkinson's experience and certainly some of them I'm not even including insomnia or difficulty sleeping, but that that is a common problem as well.

And things like pain or in mobility may interfere with the difficulty of falling asleep or maintaining a sleep. But the big ones that we know about, REM sleep, behavioral disorder, perhaps restless leg syndrome, and sort of a mirror image of that.

And I'll put you're the expert here, but periodic limb movements of sleep. We talk a little bit about those and maybe we'll as we wrap up our visit today, talk about some solutions for them.

You know, so actually, insomnia was great. Everything that we talked about in regards to sleep hygiene and and these explanations really are going to help everyone with Parkinson's and the other person that it's going to help is the caretaker as well, because I do see a lot of caretaker insomnia and and the concepts that that we discussed difficulty sleeping because some things bother me.

It was biased. Everything that has been said is going to help the Parkinson's population and their caretaker. There are some primary sleep disorders that that we see a little bit more of.

And Parkinson's, you know, sleep apnea actually is our muscles are not what they were 20, 30 years ago. An upper airway is made up of muscle, you know, and Parkinson's does happen as as we age.

So naturally we have a higher incidence of sleep apnea. Sometimes because of the Parkinson's, we can have less mobility and less physical activity that leads to can lead to weight gain, which can lead to more sleep apnea as well.

So sometimes, yes, getting a sleep study can be very helpful and getting sleep apnea treated. Another thing that that we did mention periodic the movement disorder is is higher in patients with Parkinson's.

And what that is it's slow movements in your legs that that occur while asleep. And one of the things that I do in my clinic is I'm looking at the brain activity and I'm assessing, you know, are they sleeping through it or is it causing disruption of sleep?

And if our ferritin is low, we would benefit from iron treatments. Magni Ziv is also a good treatment for that as well.

But equally, there are some medications such as antihistamines or anticholinergic medications that can make these periodically worse.

And that's important because patients who are not sleeping, they try to counter stuff over the counter. Stuff commonly as histamines, hydrazine or stuff like that, and that can make the periodic movements worse.

Sleep disorders in Parkinson's disease

Now, REM behavior disorder is also very fascinating as we go through our cycles of sleep. When we go to the RAM every 90 minutes, our body is paralyzed with sleep paralysis to help keep us from acting out our dreams.

And in the same areas that have the movement disorder and Parkinson's is the same movement. That area that that controls sleep paralysis. So as you get neurodegeneration, we have an ability to control that that sleep paralysis and end up in REM acting out that behavior.

And that's sort of REM behavior disorder. Now, something that's really interesting, you know, can I know that that sometimes medicine lags behind, you know, and something that's really interesting is that REM behavior disorder was was not classified in the international classification of sleep disorders.

So the 1980s or something like that. But in the 1940s, Cinderella had an example of RBD and there was a Spanish neurologist that was watching Cinderella with his daughter and noted that Bruno, the dog was was acting out their their dreams.

And interestingly, the onset of RBD sometimes comes ten years before the onset of of Parkinson's. So, you know, so that's something you can learn a lot from Disney cartoons.

And I actually told my daughter that the moral of the story of Cinderella is that nothing positive happens after midnight. Well, folks who are looking for solutions for the REM sleep behavioral disorder may be prescribed a controlled substance called clonazepam.

And from the conventional medicine perspective, that's probably and again, correct me if I'm wrong, seems to be the go to treatment for that, but that in and of itself can cause problems for folks.

And I read recently, I don't know if there's more of a controlled trial, but published anecdotal case series of cannabidiol fairly high dose so similar between 75 and 150 milligrams was efficacious in this case series for REM sleep behavioral disorder.

Are you familiar with that and is that something. You know what, I actually have not come across that. And that's that's interesting. Melatonin has actually been shown to be very effective for REM behavior disorder.

My my first line is to make sure that it is RBD and not pseudo RBD. What a pseudo RBD. Pseudo RBD is obstructive sleep apnea causing cortical arousal during REM and you act out your dream because of that.

So first I do a sleep study and make sure that we don't have sleep apnea. Then my other first line are safety measures. And some safety measures can include putting the mattress on the floor instead of the box springs.

So there's no fault other safety measures could be bed rails, other safety measures can be spouses sleeping in separate beds to help prevent injury. And this injury can can occur.

I had a patient that had a dream that he was fishing and he went to unhook the fish and the fish. BITTERMAN The fish and the wife jumped like this because in the middle of a clinic visit, because it turns out.

And then he goes, I accidentally hit her instead, you know, So injury can happen. And, you know, it's a sensitive subject in a lot of patients on both sides don't want to sleep separately, you know, So Clonazepam can have other other types of effects as as you're concerned about.

Equally, it's it's safer than a basilar skull fracture. Yes. You know, or a broken clavicle, you know, And if you look up if you Google image REM behavior disorder, you'll see the raccoon eyes.

I mean, you'll see images of skull fractures. You know, So it is something that that that that can occur. You know, another treatment that that is pharmacological that has some some evidence that it can help and some anecdotal studies is rosier or multiple.

And this is a medication that it is a prescription medication that does not suppress the respiratory drive. And that and that does has been studied to be well tolerated by the elderly, you know, and does not affect sleep at all.

So even before, you know, if I use Clonazepam again, I'm making sure that they don't have sleep apnea because the benzodiazepine can make that worse. Absolutely.

This has been a great discussion, folks. We're certainly not telling you to go out and take these things. There's always a talk about this with your doctor.

It's not personal medical advice here. But to your point, even about the antihistamines and anticholinergic drugs, some of which overlap so much, it's one and the same drug like diphenhydramine, which goes under the trade name.

Benadryl has strongly both anticholinergic and any histamine allergic effects. This is so important. We see polypharmacy, we see inappropriate use of over-the-counter medicines in the clinic all the time, and particularly timely, although I'm sure the information got to you in the last 24 hours on the media, it's probably wasn't necessarily new information, but it's been in the news yet again about the proton pump inhibitors and the risk of developing Alzheimer's disease or certainly dementia.

So drugs can be very beneficial in certain situations, but we always have to evaluate the pros and cons and I would wholeheartedly agree. And the vast majority of folks, older adults that I see the anti histamine anticholinergic drugs can really be a very, very big problem.

Well, we've had a wonderful chat wondering if there are any final thoughts you'd love to leave the viewers with about sleep and what they can do to maximize the quality of their sleep.

Yeah, I mean, a couple closing thoughts. You know, one of them is people say the sleep as if it's a singular word. You know, water. Water can be rain water.

It can be snow, water can be hay or water vapor or water hurricane. You know, and we said the word sleep. And people wonder if there's one pill, if there's one thing that that that, you know, can can help.

And what what else did we discuss RBD, DPL and the OSA insomnia. We discuss so much today. So sleep is plural. And when it comes to improving sleep, you know, what we want to do is to be able to get under the find underlying root causes of of sleep. And that's our sleep problems.

So that that's something that. But I want to mention another thing that's really important to mention is again, to reiterate, we can't lose sleep over sleep.

I mean, literally some people have difficulty sleeping because something's bothering them. What's bothering them is that they're not asleep. It is important, but equally can be overemphasized to where it causes insomnia.

Treating REM behavior disorder and medication cautions

Lastly, I'm really a big advocate of relaxation therapy and mindfulness based stress reduction for for sleep and you know, one of my go tos that that works for for a lot of people is an awareness of breath noticing how as you breathe in there's cool when you go to breathe out there's more noticing how breathing in the air is dry and as you breathe out it's it's cute for a kid or a teenager.

I'll put a mirror under them and as they breathe out, they see the fog to an adult. I'll explain. Remember looking out the window one time, seeing the fog.

Now feel that, feel that that mist and coming in and out of your of your nose. And when when you do that, you're not trying to slow your breath down, but you're naturally noticing it and you're open.

Your breathing respiratory rate slows down. And as you do that, you get this parasympathetic responses as well. And at those helplessly, another thing to mention is that nobody sleeps through the night.

Everyone has some awakenings that occur. If I had sleep cycles to show you, I would show you that there are awakenings in everyone's sleep cycles. So what I do is when I wake up and that is when I wake up, I have my routine.

You know, you go to the bathroom and I do an awareness of breath and I count each breath, want to and I count to ten. When I get to ten, what do I do?

I start over, you know. So why do I do that? Because I used to in stroke, count to 100. And that works for a lot. But if someone got to 100, oh my God, they'd be so frustrated that they couldn't.

So I count to ten somewhere in that number, you forget your number. You start to realize that you're drifting into the sleep. That's my go to. For most people, people who are on CPAP, there are they have heated humidification they breathe in and it's hot.

They breathe out and so they lose that.

Closing thoughts on improving sleep

So people on CPAP, I do a body scan meditation instead and there's a lot of good YouTube examples on on body scan meditation, people who are anxious or ADHD.

I use progressive muscle relaxation that seems to help better for them. And I don't use progressive muscle relaxation. So as a, say, joint disease or something so that there's some pearls for you.

Dr. Sharlin, when you go to prescribe relaxation is to consider their their co-morbid entities as well. One last thing that I want to mention in back to wearable is when I wake up, I do an awareness of breath.

There are times that I find myself in a dream. Okay, That means I fall asleep. There's time that my alarm clock goes off and I didn't fall back to sleep.

And when I look at my wearable it says that I was asleep. Is my wearable a damn liar? No. Again, it's not monitoring your brain, but that's the power of relaxation that you're eliciting, that parasympathetic response that your wearable is detecting, that you have those same parameters.

So even if you did not fall back asleep, you're still getting are not you still are resting and getting relaxation. Awesome. Well, Dr. Jose Colon, Functional Medicine board certified doctor, child neurologist, lifestyle medicine expert, author and speaker, thank you so much for joining us today on the Parkinson's Solutions summit.

Folks, if you're in the Fort Myers area and need an outstanding neurologist to evaluate your sleep, is man, look forward to reconnecting with you soon.

I know the viewers will really appreciate all of the pearls you've offered today. And I just want to thank you again so much for participating in the Parkinson's Solutions Summit.

Likewise. Dr. Sharlin, you do some great things in this world. You're the man. Thank you. All right. We'll talk soon.