

TRG 33 Transcript

Nichole Stohler

What if you could be doing something smarter with your money that creates income right now? If you're an IT professional is wanting to get ahead financially and enjoy greater freedom of choice. And if you wonder who else in tech is creating ways to make their money work for them? You want actionable ideas with honest pros and cons and no fluff. Welcome to The Richer Geek Podcast for helping IT professionals find creative ways to build wealth and financial freedom. I'm your host, Nicole Stohler and in this podcast, you'll hear from others who are already doing these things and learn how you can too.

Hi everyone, and welcome back to The Richer Geek Podcast. Today we're taking a detour for this week's episode. And it's really because we want to bring awareness around this health issue and this episode could save someone's life. Now when you tune into the richer geek, you'll hear stories of others in tech plus advice from experts. The stories about how others in tech are building, investing or growing a business gives us a sense that it's all possible. And the stories are great because they're from real people. Well, today, Mike is joining me to share a bit of his story around this health issue.

Mike Stohler

How's it going, everybody.

Nichole Stohler

And we're not going to focus on real estate investing, but instead, sleep apnea. The reason that we want to share this particular episode with you is that 80% of people who have sleep apnea, do not know that they have it. And this is an incredibly common issue and we wanted to get the word out, share my story, so that if what we described sounds like you or someone, you know, you can go get tested. Now our story starts with our very good friends that end actually today's guests that started a med tech company focused on early detection of sleep apnea. And I'm going to have Mike share a little bit of when we went to the first meeting where they talked about The investment opportunity and why they were building this particular company, and what realizations we came to.

Mike Stohler

Yeah, thank you, Nichole. I never thought never even considered, didn't even think about sleep apnea at all. I figured that all the things that I was going through was just because of working hard. You know, I'm in my late 40s, early 50s. And it was kind of like, you know, it was the rite of passage. If I was always very sleepy when I got up, you know, I didn't get very restful sleep. I started to, or, you know, I just thought those were just the normal things that people went through as they got older and as they worked 60 hours a week plus, but then we went to this investor presentation, and they're going over the symptoms in over some of the things that people experience and and I know I kept looking over you and I was both were saying, you know, I do that, don't I? It was very strange realization that I just didn't think that I even fit into the categorization of sleep apnea.

Nichole Stohler

And we ended up investing in the company, but then also saying, hey, maybe Mike should try the mobile app, which is part of what the early detection of sleep apnea part of what the company was developing. And we said maybe she might should try it. So he did try it. And then he did a sleep study test.

Mike Stohler

At first I didn't want to go to, you know, hospital or private place, you know, so to the house. So it was very warming for me and it was a lot better for me to know that I could do the beta test. And then once that said, Yeah, you know, I should get checked out then they have what's called a in home, sleep apnea, so I did not have to go outside. I was in my own bed. And that was very nice. But the Results is what absolutely startled me. I had no clue. I ended up having extreme severe sleep apnea. And I stopped breathing at one times an hour. And it wasn't a it was a story. It was the fact that I was actually trying to stay alive, trying to breathe.

Nichole Stohler

We went back to our friends and we were just so incredibly grateful that they helped us have an awareness and that Mike was able to get tested and the life saving, support and help that he needs. In fact, Mike ended up then filming a video testimonial which will post a link to that in today's show notes where you can see more of his story and the awareness around sleep apnea. Our guest today is Dr. Ruchir Sehra. Dr. Sehra is a seasoned technology and medical entrepreneur dedicated to researching and developing industry technologies to improve people's lives. His latest company resume advances the science of sleep to improve your performance, safety, and quality of life. Dr. Sehra, thank you so much for joining us today.

Dr. Sehra

Hi, Nichole, and happy to be on your podcast and hopefully some people who listen in and get something beneficial out of today's session.

Nichole Stohler

Fantastic. Let's jump in. I know I provided a bio and shared a little bit of your background. But if you could actually give us more detail, and also how you got involved in the science of sleep.

Dr. Sehra

Yeah, sure. I'm a cardiologist by training actually, and have been involved in medical device and medical technology companies for the last 15 years or so. Some of them I played a role running clinical studies and then I've led a number of these companies myself, and when we finished our last big venture which is in the area Your heart rhythm problems working, we noticed when we were doing clinical studies is a lot of people have sleep problems who had these arrhythmias. And so when we got to starting razani, we said, You know what, this is an area where we really need to concentrate to try to make a difference. And so we decided to look into the area of sleep, starting with obstructive sleep apnea where the airway kind of locks itself when people sleep, and then expanding to covering all the habits that are associated with

sleep health in general sleep, hygiene and sometimes call. It turns out, it's a massive problem. And we said, okay, we've got to come up with a new solution. So people are struggling with their sleep, can find a better way to get better, healthier, more confident.

Nichole Stohler

So you recognize the problem as a result of other studies you were doing. And then as you research a little bit more, how big is the chronic sleep issue and what overall impact for an individual.

Dr. Sehra

Yeah, it's massive. Actually, it turns out that sleep at any time about 70% of people in the country are looking for some help with their sleep and global survey support this to 60 to 80% of people worldwide at any moment are looking for some help with their sleep, they're struggling with it. Why we're struggling with our sleep has a number of causes. But I think the boom in in kind of handheld computers, the, you know, our smartphones, basically, in the last 10 years has really kind of sleep deprived the world. It's very funny how this is, this is work. In fact, the Centers for Disease Control as a number of axes of health that they follow every decade and then the sleep access. It's the only access and we're all the measures around sleep are going in the wrong direction. They're not even achieving their goals. They're going backwards, so we're getting worse in our sleep. Over this decade that we were over the last two, so it is a serious problem out there. And then things like sleep apnea, the disease, the medical disease, that also is growing because as we get older, sleep apnea is a disease that pops up on us when we hit middle age and an often older ages. And it's now starting to be recognized as kind of a underlying, not always a cause, but something that makes sleep worse. And so for a mix other diseases where So for example, if somebody has diabetes, they kind of screen themselves for sleep apnea because sleep apnea makes diabetes worse. And treating sleep apnea can allow people to control their blood sugar. Similarly, with things like heart failure, heart rhythm problems, like the area we were in before, depression, erectile dysfunction, and obesity, all of these things are made worse by diseases like sleep apnea and get better when you treat the sleep apnea alone.

Nichole Stohler

I think that is so fascinating. And when I saw you speak about how many other diseases are either elevated or kind of as a result of sleep apnea. Now, you also had shared some key facts about sleep in general. Can you take us through those?

Dr. Sehra

Yeah. So I mean, there's a whole bunch of interesting little facts that people don't realize when it comes to sleep and performance. We don't kind of realize when we've had a bad night of sleep, we're not quite performing as well as we normally do. But there's a lot of biological information we know and kind of performance based information. So for example, for an adult male, if they are chronically sleep deprived, their testosterone levels will be the same as a man 10 years older. So a lot of people as they're getting older, they're worried about their low testosterone. There's ads on radio and TV about this, but the first thing you should do is find

out if you're sleeping, okay? And unfortunately, you can always find that out just on your own. You need somebody to either test you, or maybe a bad partner to tell you that something's just not going right. So you know, sleep apnea and sleep deprivation, sleep disorders are a big deal. The other sorts of facts that are somewhat interesting, you know, when it comes to biology is it affects how insulin is handled. We've talked about that being connected to diabetes as well. It affects our reaction time. So people with sleep apnea or sleep disorders who are deprived, they tend to have a much slower reaction time. Where does that matter if you're driving if you're working around heavy machinery, and your job involves some of these kind of high risk occupations, and it also matters if you're an athlete, baseball players and Major League Baseball gets less than half a second to react to a pitcher throwing the ball, and if their reaction time suddenly drops by 40 or 50%. Jessica's asleep. That's it. As trained as they are, they're more likely to strike So there's a number of facts and places where we're sleeping up here and sleep disorders.

Nichole Stohler

I think people just don't realize that, and it's very interesting when people aren't sleeping well for a variety of reasons. One of the things that I've heard you also speak about is you can't catch up on the weekends because I know a lot of people will you know, have a crazy busy schedule during the week and especially in it you know, maybe they're working on trouble issues and so they're up or their major major project and then they're trying to catch up on the weekends. But I don't think that actually works.

Dr. Sehra

You know, I was one of these people who just didn't think you needed sleep. You know, I was very proud of the fact that for many years I have done less than five hours of sleep at night. You know, I used to jokingly say you can sleep when your bed that was one of my my favorite lines that I used to use with people I consider lack of sleep my superpower which is quite hilarious as I look at it now and it turns Turns out that if you sleep less than five hours at night, you actually increase your mortality risk by 15%. I didn't know that at the time, but I know it now because the science is pretty well laid out on this because you tend to get sicker with other diseases, and you don't die in your sleep necessarily, but you die of these other things. When you realize it is when you've had a number of good nights of sleep in a row. I used to think I can just catch up on weekends, which is where your question was going. The science says there is no catch up phenomenon with sleep. You just need to have consistent good night's sleep, unlike many other things, okay. Yeah, you know, I can cheat on my diet for a couple of days. I'll get back on schedule by just eating less the next few days. With sleep. There is no sleep bank or sleep debt that you can pull in, you know, on weekends and things. And the biggest reason is there stuff that builds up in your brain through the day. And what sleep does is clean out that stuff. So you can imagine it's like a garbage work or strike going on when you don't clean up The brain every night. And so when when everybody's back at work to clean up the garbage, you can't just have garbage pickup, because the garbage is still piled up over many, many days. So you can't just catch up, all you can do is maintain. So there is no easy way to kind of catch up on your sleep that all you can do is try to be healthy when you do take normal sleep patterns and normal sleep hours.

Nichole Stohler

So you can't catch up. And it is important to get nice quality sleep because it does impact other things. What are some other myths for anyone else who thought well, I'll just catch up on the weekend. Some of the other myths about sleep that we hear.

Dr. Sehra

Yeah, one of the myths is, you know, the the myth I used to say is you can sleep when you're dead, I'll just power through it. I'll drink coffee and things like that. But it turns out that that you know, none of that actually improves your performance dramatically. You tend to still be a lower performance. You may not realize it by you know using stimulant medications or caffeine. Which is everybody's favorite stimulant. Another myth is this myth around being tired or not, or I don't need to sleep to have all the energy I need. And it turns out that physically you actually do need to sleep to have physical energy. People tend to tire athletes or workers tend to tire 30% quicker. If they don't sleep. I'll give you a personal example. We we'd like to go hiking quite a bit and we went up to altitude a couple of weeks ago, to just do some pretty, you know, kind of strenuous hiking, and we did the worst thing possible i i by late my own rules once in a while, and we drove up to go hiking at three in the morning, started hiking at seven in the morning. And in the process, we haven't gotten enough sleep, and I could feel it right away. I mean, I can just it's it's tiring going up the mountain and I could feel getting tired and getting tired and we had just much more effects of the altitude We have to start the hike early and come back down. That's a typical reaction if you haven't slept well, and we may not want to recognize it, but it doesn't mean it's not true.

Nichole Stohler

I think the audience would also be surprised. And I remember this from your talk to some famous people with sleep apnea that either are known or not diagnosed. Can you share a little bit of that with us?

Dr. Sehra

Yeah, there's three names I give out quite a bit because people don't realize it. One is the basketball player Shaquille O'Neal. So Shaquille may have had sleep apnea, even while he was playing. His career was shortened with injuries and fatigue near the end. But he said he recognized some problems when his wife told them soon after retirement and now he's treated for sleep apnea. He's kind of back to full power Shaquille is one of the biggest brands out there in professional sports today and he's retired. Another one which people don't recognize is George Clooney. He's another diagnosed sleep apnea sufferer who's under treatment. So, George Clooney doesn't have the look of somebody who's big and has a thick neck and overweight. He looks like a pretty healthy aging guy who, you know is often unlike the 10 sexiest guys sort of list. But it's not always how you look on the outside. It's what's happening in your airway on the inside that matters. And then one of the tragic examples that I often give is Carrie Fisher. So Carrie Fisher has been a sleep apnea sufferer for much of her life, we believe, we don't know because she didn't get tested till later in life. But as you know, she died in her sleep. What initially was thought to be something related to sleeping pills. Turns out that wasn't the case.

And it was most likely related to sleep apnea that had never been treated. And if you may remember earlier I said one of the diseases that goes with sleep apnea a lot is depression. And by treating sleep apnea often depression can be treated better. She was opposed. Your child for you know, depression and needing treatment for depression. She would talk about it very openly and personally on how she had suffered for a long time she even got that electroconvulsive therapy, you know, where they hook up electrodes and shock your brain to try to help your depression. It's not that the sleep apnea treatment alone would have cured her, but it sure would have made it easier to manage her depression and she just never pursued it. Unfortunately, she died.

Nichole Stohler

On the medical side of sleep, you share a video of a man and a sleep lab. And when you are giving a talk is is really interesting because you're sharing what's happening. And you know, he doesn't know Well, maybe he knows the video is being made, but he's asleep the whole time. Can you share what that officially the sleep apnea definition is and what's occurring in that video.

Dr. Sehra

Yeah, sometimes people speak of sleep apnea, they don't quite get what it is. And what it really is is that your airway tends to get obstructed by kind of the tissues in your tongue and your jaw falls back, there's a whole number of reasons that the tissue around your airway can collapse. So it's not an effective bone. It's not something you did badly. There's certain things you can do to improve it. But mostly, it's just bad luck. You know, as you get older, you know, my face is sagging a lot more than it did 20 years ago. That airway that has the same tissue that's affected by the same gravity of age, and some of that tissue starts becoming redundant and blocking your airway. So in this video, which I actually found on YouTube, I jokingly say my main source of medical information. And this gentleman had moderate sleep apnea. And so what we saw him do is basically stopped breathing, took a big breath, and then he stopped breathing. And when he stopped breathing, you could see him make effort to breathe like his diaphragm and his chest was moving, but there was no me Moving and you knew it because you wouldn't hear it. You know, nothing was moving in and out through his mouth. And we can even do a experiment if you want with the viewers to give a feel of what sleep apnea is like. Would you like to do that?

Nichole Stohler

Yeah, let's do it.

Dr. Sehra

Okay, so when I tell you to go, I've got a little timer up on my screen here. When I tell you to go, I'd like you to hold your breath. And I'll tell you when to breathe, which synchronizes with how long this guy went without breath. All right, ready? And go. And I tell everybody who's out there listening. Please take a breath. If you're getting blue in the face, we don't want you passing out. And the definition of sleep apnea is 10 seconds without a breath or more, and the gentleman was still not breathing at this point.

Nichole Stohler
Still not breathing.

Dr. Sehra

Still not breathing. By now he's making a ton of effort trying to get a breath And now is the first time it took a breath, that's about 32 seconds, which is a huge amount of time, if you think about it without a breath. It's like that game used to play when you were a kid where you hold your breath underwater. And you know, the kid who could hold his breath for more than 30 seconds was really good. Now, the worst part of it is, this guy could otherwise seem normal, he doesn't know that he had trouble breathing. And when he did take a breath, you could see him shift and move and adjust his body, which is something that's called an arousal or it's a subclinical event, meaning it's not a real waking up event, accepted his brain, his brain saying something's really wrong, do something so shift around. So essentially, his body woke up without his mind waking up all of the typical person who let's say moderate sleep apnea is going to do that 150 times, not just once, but 150 times. So even if you had a perfect eight hours Sleep with that. It would be an awful eight hours of sleep if you didn't breathe for large periods of time. 450 times and you can understand why. Then in the day, you're struggling with everything, you're tired, you can't think straight. You know, you get upset quicker, that road rage when you get upset your loved ones, that's all related to that lack of oxygen they had overnight.

Nichole Stohler

And that is a mild case that you're talking about there in that particular video.

Dr. Sehra

Exactly. So severe personal will have those episodes ago, 300 times. If you can imagine that's, that's almost every minute that they slept.

Nichole Stohler

It's unbelievable. Can you tell us an example of the findings on Well, you did share a little bit about the athletes but some incremental findings about their performance and sleep.

Dr. Sehra

Yeah, there's been. So I talked a little bit about baseball players and how lack of sleep can affect the reaction time. There's actually been some pretty good work on swimmers as well. And swimmers are a good group to study for a couple of reasons. One, swimming culture tends to wake up people very early to get into the pool. It's just part of swimming, or whatever you want to call it that you're going to get up at 430 you're going to be in the pool by 530. That's when you train. It's just what swimmers do. So Stanford University, which is one of the best swimming programs in the country, year on year, decided to change this up. They said, You know what, let's see what happens if we allow our swimmers to get more sleep. They knew some of the science around sleep. So they changed their swim practice times and tried to encourage their swimmers to get a proper eight hours of sleep at night. And what they found

within just a month or two is that the times that people are getting across the pool, were speeding up just 15 meter swim, which is you know that The shortest Olympic swim I think, is 50 meters, which is one across the Olympic pool, but just a 15, one five meters, which was fed up by half a second on average by swimmers. So to put that in perspective in the Olympics, the 50 meter medals, I think in the last Olympics, if you are a half a second slower, you were easily off the metal podium in a full 50 meters swimming just within 15 meters alone, they could speed up their swimmers. And this may be one of the the kind of secret training tricks that they do at Stanford to keep their teams of competitive. So I like the swimming example because these are objective, easy to measure things. So not a lot of people would think, Hey, I can speed up by half a second in swimming just by getting a couple of extra hours of sleep, but just how does that happen? But it's true. And they measured it and they reported out these results in a scientific conference.

Nichole Stohler

So for those of you listening We've talked about the importance of sleep, how it affects, you know, disease states and your day to day life that you can't catch up on sleep on the weekends. That what sleep apnea, the different levels and what that's like and not breathing essentially in a mild case for 32 seconds and that particular video, and then the impact on performance. So after all this, everybody's listening and saying, okay, we'll do I have that now what so could you tell us a little bit about Drowse and the mission behind that particular solution?

Dr. Sehra

Sure. Well, when we built this company, we said we wanted to advance the science to sleep health so that it can improve your performance, your quality of life, and also reduce the risk of injury or improve your safety. And I think we've done a pretty good job developing some products around that. So drowse is our brand name for our kind of lead product and we cover it all. With with a title called the browser sleep health program. And in the program, we tried to be comprehensive because we knew we couldn't just focus on sleep apnea without addressing the whole person and all their habits and things. And we couldn't just address sleep health habits unless we screened somebody for something like sleep apnea. Because if you've got a medical condition, you can't just with more effort will your way out of that, that condition, you've got to actually get that treated as well. So one initial point I want to start with is that drowse, or just recently, about a month ago, little over a month ago, got cleared by the FDA as a full in home screening test for sleep apnea. So this is similar to any home sleep test that somebody would do. The differences drugs will doesn't ever touch. The way our product works is that we spent about two years doing a clinical study and developing algorithms where you can just put a cell phone late at your bedside and let it essentially Run while you sleep. What it does is it listens to your sleep breathing. We analyze all of these advanced algorithms and analytics on your breathing pattern in the cloud. And then when you wake up in the morning, you know about your risk of sleep apnea, among other things, other sleep health screening elements we do. So we educate everybody about what is sleep, what is sleep, health, what is sleep apnea, all of these things because the first step to starting down a path of improvement and changes, you've got to educate yourself. So we provide all of that for many means. Some

on the mobile platforms, some by email, some by social media. And we can even do physical, we occasionally give talks at major companies and things like that, that are kind of just physical interactions. Then we screen you just with a product like the product I just described cell phone at the bedside, you're breathing, you just normally sleep overnight and listens to your breathing tells you about your sleep apnea risk. It's by the way, the First, I think pure mobile software solution that's ever been cleared by the FDA for any indication. So we're, we're pretty proud of that it took us a long time, had to do a lot of clinical study work, and a lot of science around it. After that, we knew that we couldn't just scare people into knowing they have sleep apnea because sometimes knowing is worse than not knowing if you don't know what to do. And so what we started doing is building up everything that follows. So part of everything that follows is we have for those who have sleep apnea, we try to hold your hand digitally and say let's get you to treatment will recommend some doctors. There's also a dental treatment a lot of people with sleep apnea are afraid of just the C pap mask but you gotta wear that looks like you're on a respirator if that doesn't work for you if it's uncomfortable. There are many other options that often patients don't hear about. One of the options is called an oral appliance which is a done by a dentist, a customer Essentially a mouth guard for your mouth that can help hold your jaw forward in your tongue forward, so it keeps your airway a little more open. Now, oral appliances don't work for those with the most severe of sleep apnea, but they work for, you know, about half the people. And they're much easier to use much more comfortable. It's essentially just like wearing a mouth guard or a credit card at night. But specifically designed to keep your airway from blocking. And we talked about all of these options in some of our educational programming, but also the follow on stuff that we communicate to individuals. We always take the paradigm will meet you where you are. So if sleep apnea scares you, and you don't want to test yourself overnight, we'll start with some tips about just how to improve your sleep. So maybe we just teach you to wear some blue blocking glasses an hour before sleep. And if you follow that, that'll improve your chance to get into sleep comfortably at night. It's just the first step and behavior change. It's always easier to take small steps. Start down the path, then you monitor yourself. Again, browser was built on empowering the individual to kind of go down this journey themselves. So we've got all these monitoring elements. And we focus our sleep monitoring less on what happens overnight and more on the effects of what happens. So, for example, we're going to ask you a few questions about how you feel. And we're in the process of one first of our micro games, which is a game you play for reaction time testing, and you know, your reaction time, but knowing all this information, you can start acting on it during the day in preparing for the next night. The reason we go for daytime effects of sleep is because when you measure something, when you're unconscious, it's really hard to kind of take willful action. You can't say, Hey, I'm not getting enough REM sleep or dream sleep. I'm just going to kill myself, you know, with intense pressure into dream sleep, you just can't do that. So by knowing information that you can act on, which is what's the effect of your sleep on your day. Time, like, you can start taking those actions that you need to get better. And of course, we've given you educational information, we can connect you to doctors, we can make sure you're getting on treatment. And then we can make sure you're following yourself go around the cycle again and again, and you get better and better. Any sort of change in both behavior and medical treatment, take some time. And we can be there with you kind of digital, and making

sure so we're, we're a digital health solution, but also with a really strong medical grade analytics built in,

Nichole Stohler

Yeah, you're trying to raise awareness, help people where they are, get the help that they need, and provide that ongoing support. Now, you talked about FDA and getting the approval and congrats on that. I know that was that's a huge, big deal, and especially being the first app. How do people actually get access to the app?

Dr. Sehra

Yeah, right now, it's not a direct consumer app.

Nichole Stohler

So if someone wants to get access do they need to ask their position or through their employer plan or how did how does that work? Yeah, it's all coming. Yeah.

Dr. Sehra

No, no, the employers probably the best path right now because not a lot of employers are aware of us yet, but it's going to happen. But what what we would suggest is if you want to reach out to us directly, you can email us at info at resinate. com. That's i n f o r e s o n e a wrestlemania.com.

Nichole Stohler

Perfect. Okay, so you gave us that email address? What are Is there any other way that you would recommend folks find out more about drossel and sleep apnea?

Dr. Sehra

Sure, if you go to our website, resinate. com. There's a lot of general information that you can look through on the website itself. And you can learn a little bit about the product, but also a lot just about sleep health. There's some links to some resources from Throughout the internet on sleep, and sleep, breathing, and sleep and sleep apnea. So there's a number of ways you can you can start looking through it and just follow the links off our website. And it'll connect you to basically all of the major organizations that are focusing around improving people's sleep and their sleep.

Nichole Stohler

Perfect. Well, thank you so much for joining us and educating the audience.

Dr. Sehra

Thank you again, Nichole. It's a real pleasure. And it's been great chatting with you today.

Nichole Stohler

Thank you so much.

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