Sleep as the Foundation of Health

Welcome again to the Sleep Deep Summit. New approaches at beating sleep apnea and insomnia. I am your host, Dr. Audrey Wells. And next up, I have Matt Berg.

Matt is co-founder of Somni, which is a company that helps to design, build and deploy products aimed at improving health and longevity through meaningfully improving sleep.

Welcome, Matt. I agree. It's great to be here and I'm excited to chat today. Me too. And you know, I want to tell you that in going to your website, I saw something intriguing.

You write that you are a believer that sleep is the Archimedies' lever of health Archimedies' lever of health Can you explain that? Yeah. Yeah. I'm glad you brought that up.

So there's this really famous quote where Archimedies says along the lines of, you know, give me a lever and a fulcrum of the right sort of sizing and I can move the world.

Just kind of talk about this idea of leverage, you know, and I'm not getting the quote exactly right, but the way I've sort of internalized sleep as it relates to health and longevity and just the quality of life as as I've, you know, poured through not only just the the translational research and sort of all the publications that have come out in the last couple of decades, but also just in the practice of what we do at insomnia as we deploy interventions to help individuals sleep better.

It really starts to become clear to me that this is the single most important lever or leverage we have over our health and our longevity. And so I think that's where that idea comes from for me, where I just as I step back and see more and more of this over time, as we treated more and more individuals with with what we do and so it becomes very clear that sleep really is sort of the Archimedies lover of health in the sense that, you know, of all the things we can spend time on, whether it's nutrition or, you know, hydration or meditation or social contact or or emotional health, I think if you were just to get one in place first and just really optimize that and get it get it bulletproof, it's in sound.

I think you want to focus your energies on sleep before you go to anything else. Not to say those things aren't important. You know, I think there's obviously exercise and nutrition are undeniably important and all those other things.

I sort of touched on. But I think sleep really is from my lens. The world I live in and the things that I've seen and the research I've seen all points of view.

This idea that it is, it's king and it's and it needs to be sort of at the base layer of the foundation before you and before and while you work on other other components of health and longevity.

But you just can't you can't ignore it. I just think the data is so is so profound at this point. And not just that, but the the evidence and the and the real life lived experience I've seen of what we when we provide our intervention to individuals who are struggling their sleep and then the night and day changes that happen, it's just it's just hard to look the other way.

I almost can't unsee what I've seen. So that's that's where that idea comes up. You know, I'm glad that we're talking about this plainly because I couldn't agree with you more.

And it's not just changes in my life that happen with improved sleep, but at this point in my career, I've treated about 50,000 people. And I can say with such a great deal of confidence that sleep is absolutely foundational to

health and it's the base on which nutrition and physical fitness sit.

I would also add mental health as one of the important pillars.

Personal Story Behind Somni

You know, I'm I'm just going to take a guess here, but I'll bet there is a personal story behind why you got motivated to start your company. Can you let us know what happened?

Yeah. Happy to. It's you know, I think I think a lot of a lot of these stories go and it was very like lived experience. So kind of roll back the clock. I was I say health crisis.

I didn't I didn't get it. You know, like I just I was in my mid-twenties and I basically blazing through life like most 20 something year olds with with no either awareness and or instruction on how to take care of sleep.

And I just realized that how much I was self-sabotaging, my health and my my career and my studies and all the things that were going on and this sort of it kind of came to a head, kind of we'll get to the details.

But it was it was it was all surrounding a long, chronic sort of structural broken sleep, essentially. And so and then there was a turning point where I really was course on sleep health and just felt I was reading like paper after paper of wow, this stuff is this is basically like a drug for your health and for your body and for your mind.

And it's free and it's essentially free. And it just you just kind of have to get out of your way. And so it just became as I as I read paper after paper, and these were some of the older sort of foundational texts or works that came out of places like Stanford or Harvard in the early days of sleep, health, medicine and as a wound.

And this is before sleep was having its moment. And so that for me was sort of a pivotal, pivotal moment. And I'd always been interested in this idea of spending my life in some fashion or form, in service, to to this idea of helping or healing.

I thought medicine was was the calling for a while before I sort of fell out of out of out of touch with with some of the ideas in Western medicine. But that's another story.

But but this ultimately became like, wow, this is amazing. And could you could you package or encapsulate that same experience that I had for others, you know, in a way that was there was just just as meaningful, right.

So I think for me, as I started to fix my sleep, that experience that sort of became the birth of this idea, which was I became zombie, which is is now able to go many, many iterations from then and and it but it's still the same goal.

It's almost like the exact same thing where it's like, oh wow. There's someone who may or may not know their struggle with their sleep that are really either chronic or acute level, but then it's to provide them basically a roadmap and all the support tools and technology to help them basically bend that trajectory, that curve.

So that over a very, you know, over the rest of their life, they're going to be have a meaningful material change in their sleep, ultimately to the point where, you know, we we want to ultimate we don't want we want we want our all of our customers to fire us at the end of day.

We don't want to be around because if we've done our job, that they're equipped with the right tools and understanding and all all the things they need to go and sleep, sleep so very well for us, their lives.

And we think about it sort of like this, this interesting analogy, you know, with round planes, you know, if a plane is taking off from New York and is going to the West Coast, you know, you'll have to point the nose a few degrees left or right.

And you're going to be there in in San Francisco or in Los Angeles. And so I think for us, the way we think about is

these very long tail, long term compounding effects of how can you make these these changes structurally to someone sleep and therefore just let that roll into better health and better relationships and, you know, all the things that sleep touch us, right, that you're kind of leaning on.

So it did all start personally, but now it's become a much bigger sort of mission as to how many people can we help with this? This this way of thinking a way of of living?

Yeah. You know, I. I like that analogy because it kind of speaks to a long term delayed gratification idea that helps to put perspective on the type of results that you're expecting with relatively small behavioral changes that happen day after day after day.

And, you know, over the course of the last couple of decades, I can tell you that sometimes I have a hard time recruiting people to the idea that they need to make these small changes in order to invest in their sleep and see a return much later.

I wonder if you have any ideas that you've come across that seem to be helpful for you? Yeah, that's a really good question.

Behavior Change and Sleep Habits

I think the first thing that we've learned with our patients, our customers that individually we treat essentially I work with is a lot of it starts with why at some level we're trying to get at this.

It's almost like teaching a new skill in some ways a bit before that skill is taught. It's understanding just how important this is. And so I think I think that is where the the journey usually begins, where it's you kind of need to see the data and to to believe otherwise you might just sort of you might not take this as seriously as it actually is.

And so I think that's sort of like step one for us and oftentimes will will uncover that through a whole host of means, but sometimes just look at their wearable data or their genetic data to see like, oh, wow, this is actually an impact on your life.

Just kind of bring this up to the surface. But I think it's a constellation of behaviors after that that we we really try and focus on teaching how to how to make these.

Yeah, these, you might call it few percentage improvements every day over a long period of time and then supporting them on that way. So, you know, it can be everything from like sending us your work schedule and and your lifestyle and kind of like us working around.

How can we help maneuver things that might lead to better outcomes? You know, obviously, the bedroom is a very important sacred space for getting that right.

Like structurally, is that sound. And then, you know, basically everything that happens from, you know, the more in the morning when you wake up before you hit the pillow, like all those things are actually building and leading towards sleep.

All those choices have consequences, whether it's the medications are taking or the caffeine intake or meal timing or exercise or lack of exercise. Light exposure is obviously a massive, massive component with the circadian rhythm. And that gets back.

It's really complicated with folks who are running shift work. And so there's just like all this nuance and I think what we've learned over the years is just like while there are general guiding principles for do this, don't do that, it actually is a very personal attunement.

You know, I think I think there's no one size fits all, sadly, when it comes to prevention. And it's a lot more of, okay, here's where you are, where do you want to go?

And then let's let's look at basically all the things standing in your way, whether it's your own choices in an environment that you've unwillingly set up that way or not knowing sort of and sort of stumbled into or it's literally years of poor habits, right?

Like it's years of whatever that thing may be doing that is just sabotaging that night and then setting you up for the next day and just compounding in the wrong direction. Right.

So I think it's kind of trying to look at that. We try and take a 360 view of everything that's going on. So we'll look at environment habits, you know, with screening for sleep disorders, we'll look at the genetics side of things, look at wearable data, we'll do intakes, and we try to just get this very rich picture of someone's sleep health and then help them based on all the things we've seen and all the data we know and all the science we know online, the things that are working and then help install things that are working and that can look like, again, a lot of different pieces to the puzzle.

And there are some themes, of course, there's a broad themes, you know, light nutrition, substance intake, exercise, meal, timing, all those things, environment.

We can kind of look at those and bigger buckets. But I think, yeah, generally speaking, it actually becomes a sort of nuanced approach. And that's I think that's what makes what we do so, so personalized. So.

You know, one thing that occurs to me as you're talking is that what you're describing is behavior change. And behavior change on a backdrop of sleepiness, not sleeping well or having some sort of undiscovered sleep disorder is even harder than behavioral changes normally.

So it kind of takes us back to your original point, which is that if you're going to make improvements in your health, if you want to kind of look forward and aim to be the best person that you can possibly be, then it makes a lot of sense to start with.

Sleep as the foundation. Yeah, I think that's right. I think there's I don't see how you do it otherwise. I don't see how you get your health in the place you want it to be.

Knowing just how extensive the research shows that sleep, it bleeds into every facet of your health. And if if you don't get it right, it cuts the other way.

It makes everything worse. You know? I mean, yeah. So I think that's right. I think there's just there's no way around the kind of that that that truth.

Right. It's almost like this. It's like a physical law of the universe that you can't actually run away from this idea as much as we want to in our, you know, our caffeinated screen time, you know, like Netflix bingeing world.

It's just it just doesn't work that way, sadly. So. Yeah, there's a lot of things competing with healthy sleep these days, and I think it takes a certain amount of self-discipline and also just awareness to turn your head the other way or make a decision about what you're going to do and not do.

I wonder in your work what are sort of the top three things that you see people doing incorrectly about their sleep? And, you know, I'll add that oftentimes this is misguided.

People tend to subscribe to beliefs that were myths or something. So give me a sense of what top three things you advise people to change. So your question, you know, I said before I say that I think a couple that jump to mind, I will say this this analogy that I think of is kind of touching on what you said just previous about behavior change, is that, you know, like a weight loss scale is very different than a weight loss program, you know, and I just think just because you're tracking your sleep or your thinking about it doesn't mean you're actually changing it. Right.

And so I think one of the things we see a lot is kind of dovetail in this idea is people tracking their sleep with a wearable and kind of obsessing over it, but not knowing what to do about it. Right.

So they get all this data and they think that that is and you can do a lot of self experimentation, but that can also take years, right, to kind of triangulate what's going on.

And that's I think one of the things we try and short circuit is how do you take that process from six months to say six weeks? But I think one is maybe like becoming obsessed over the data.

Also just knowing that the data is not always perfect, it's generally right and correct directionally correct, but there's all sorts of edge cases to that.

So I think like not obsessing of the wearable data is a big one. Light exposure, obviously, like circadian rhythm setting with with when and how much light we get throughout the day.

Epigenetics and Sleep Biomarkers

I think people generally 90% of people that we find are totally oblivious to what's going on there. And I was doing right. So I like it's a it's a classic like nobody really gets this unless you're in our world.

But I think that's a really big culprit of driving poor sleep. And so I just think being mindful of when you're getting light exposure and how much is a really just massive lever for for the entire equation.

So, so that would be one for people who are trying to work on their sleep. And I think like I would step back and say generally just like a broader bucket is just everything that happens like sleep actually starts the moment you wake up like your night of sleep from from our live.

The way we think about it is that actually begins the morning you wake up. And so we're just being mindful of how those choices throughout the day have consequences for that evening.

And that can look like everything from, you know, if you're going to have 400 milligrams of caffeine, do not be surprised when you can't sleep. It's just like, you know, or if you if you're drinking a time about a bottle of wine within 2 hours before going to bed, it's like you really should expect what's coming your way right and right, guys.

You should you should be surprised that you're not see who else? I think I think some of that thinking is how we help our our sort of individuals work through some of those choices and just help them like, look, you can make these choices, but just know this is like it's a cause and effect relationship, you know, it's like you press this button and this thing comes out.

And so I just helping them understand those relationships do exist and they're very well documented at this point. I think it's a big part of the what we do in helping them sort of navigate.

So I'd say, yeah, don't obsess over the world of data. You know, think about light exposure as, as, as a thing and then also just like being very mindful of all your choices throughout the day and just kind of understanding how they do play into that evening of sleep.

So it's kind of a longer answer, but those would be my, my first three things I would tell them to look at. I think that's really helpful advice. And you know, to your point about the light exposure, we are literally programed to respond to light.

And so getting around that is just simply not going to happen any time soon. You know, you mentioned something earlier which I think is is interesting, and that's the genetics or epigenetics as it pertains to sleep.

Can you say more about that? Yeah, this is I think is the thing. I'm the most excited that we're working on that. I'm most excited about the future. We are team has been working on this for a while now, but just to kind of take a step back, we're working on a sleep biomarker, an epigenetic basically biomarker using saliva for sleep.

So essentially for those who may not be familiar with this phenomenon, epigenetics is that you might course

subfield within genetics whereby just to kind of run through this quickly, our choices in our environment affect our DNA.

And so there's there's this relationship that exists where it s it changes the way our DNA is socially wounded, unwound, and it adds removes markers and tags.

And this is just a very fascinating field. What we found is that there is a marker within your epigenome that changes in response to how much you're sleeping and how well you're sleeping, for that matter.

And so what we're what we're so excited about here is using this as a as a tool to measure your sleep. So while we think, you know, our when we work with someone, we, you know, we try to explore all sorts of, you know, questionnaires that are, you know, evidence based.

And we'll look at the world data and we'll meet with our health team. We think those are all really great places to sort of understand someone's sleep.

But what we're really interested in is this frontier, how your sleep is actually affecting your your DNA and then their, in turn, your health, you know, because, you know, within epigenetics, there's a lot of interesting research that shows that as certain genes are turned on and off, because either exposure to stress or toxins or nutrition or our sleep, that it changes our DNA and what's expressed and what's not expressed.

And it switches on all sorts of signals. Right. So I think for us, where we're pushing into this into this space, very hard and wanting to ultimately the grand vision of this is that we'll take a baseline biomarker using your saliva and understanding how your sleeping will tailor a personalized intervention around that.

And then we'll be able to retest you over time with the with the intent to show that by protecting your sleep, we're essentially protecting your DNA from being damaged because of poor sleep, because we know over time, for example, that and this is sort of new research that shift work, for example, leads to DNA damage, essentially.

So so knowing that, like, really, you know, really cute or chronic basis of a really disrupting some of the sleep, we know that it affects the DNA. So for us, how can we how can we think about this much more holistically in some ways where, okay, look at a base case.

Sleep is is protective to your DNA and if you don't get it, it's actually going to affect it in a way that you really don't want. Right. And and this is where I think it shows up in your health when you're not sleeping.

Well, that's the manifestation. But the linkage between that is, is changes to the DNA that that aren't that aren't helpful. Right. And so for us, we're trying to get a get a handle on by measuring those things and being able to do something with that data.

So that's a bit of like our our cutting edge frontier research, product design that we're working on right now and slowly rolling out, but we're very excited about it. So yeah, it's so interesting because, you know, there is a genetic component when you talk about sleep in that people are born to be sort of programed into different sleep periods.

An easy way to think about this is the morning lark or the the night owl. And then third bird is in the middle. Genetics also come into play because every cell in our body expresses genes that keep time.

That includes our organs that sort of respond to meal timing, socialization, light exposure, etc.. And then introducing this concept of epigenetics, I think is really interesting too, because while we don't have so much control over whether you're an early bird or a night owl, we do have some control to to change how our genes are expressed.

And I always think that's reassuring and helps to get people's buy in to how their behaviors and their modes of thinking and their beliefs about sleep could actually improve things for them in the long term.

And another thing that comes up is this connection between poor sleep and disease. Of course, poor sleep and disease are related. You are at risk for more problems with health if you don't sleep well.

And so those two things I think are really profound when we're talking about epigenetics. Yeah, I think you said it really well. Honestly, they mean much better than I said it.

At least I think that that is that that hits the nail on the head. Right. I think if we can find for us the Holy Grail is going to be just that. Right.

Can we can we really deeply understand how an individual's choices with their sleep are affecting their DNA and their turn, their health, and then bend the arc of that through through really structural changes?

Where to Find Matt Berg

And they could look at a lot of things, you know, but by using that as as the GPS to know that we're going in the right direction because we can actually see when we make and apply these interventions for a person's very unique life and sleep health, we can then see the changes and we can see if those are working in the right way or the wrong way.

So we do that right now using wearable data, which is really rich and really nice to have. But I think just taking this to another kind of transcending that to look at the DNA is we're really excited about that prospect and where that future lies.

I am too. You know, the whole idea of using biomarkers as kind of the ultimate feedback for what you're doing or not doing in your life. I think has a lot of potential and makes a lot of sense.

So as we wrap up here, Matt, I wonder if you can tell the audience where they might find you if they wanted to learn more about you and what you. Do for sure.

So our community can be found on the internet just at puresomni.com So sound is Latin word for sleep. That's S-O-M is Matt, N is Nancy I is indigo dot com so puresomni.com you can find me at matt@puresomni.com That's my personal email.

I'm always checking to respond to customers and patients and anyone who's interested, and I always like to hear people. So that's the easiest way to get a hold of me and or our company. It sounds great.

Matt, listen, it's been a pleasure to talk to you today. Thanks so much. Thanks Audrey, It's been a pleasure.