Introduction to Sleep and Hormones

Welcome to this episode of Hormones and Mental Health Overcoming Anxiety, depression and ADHD in women Summit. I'm your host, doctor Cassie Smith. I'm a holistic endocrinologist based out of Oklahoma City.

Today in this interview, I'm interviewing Doctor Wells and we are going to be focusing on sleep. So sleep is so important. We've talked about that during this summit a lot.

And she's going to help us really understand how sleep is affected as we transition through hormones, through menopause and our hormones change, and then also how sleep can also impact a lot of these symptoms we're talking about.

So depression, anxiety, things like that. So Doctor Audrey Wells is a board certified physician with over 15 years of experience in sleep medicine, obesity medicine and pediatrics.

She's a leading expert in sleep health, specializing in diagnosing and treating sleep disorders like sleep apnea and insomnia. Her approach goes beyond traditional treatment integrative cutting edge technology, non-pharmaceutical therapies like CBT, and lifestyle innovations to help patients achieve optimal sleep.

Doctor Wells has led has held leadership roles in clinical and digital health initiatives, where she's been instrumental in developing innovative sleep health solutions.

She's a recognized thought leader in accomplished speaker, known for her engaging presentations to audiences ranging from medical professionals to business leaders and consumers.

She also has a passion for empowering others through education building, having built comprehensive sleep health platforms and virtual programs that have helped thousands of individuals improve their sleep beyond her clinical experience.

Her expertise Doctor Wells is an advocate for women's health and a champion of holistic approaches to patient care. Her entrepreneurial mindset and collaborative spirit have driven her to push the boundaries of what's possible in the sleep health industry.

She believes in leveraging creativity, technology and data to transform the patient journey and deliver high impact, sustainable solutions. So thank you for joining us on this episode.

Pleasure to be here. I love talking about sleep. And so getting the opportunity to spread the word is something that makes me really happy. Well, I you know, I think that sleep is so important.

And, you know, I, I talk a lot about this on my podcast and just in general, when people come to functional medicine doctors like myself, I'm pretty clear with them that if you're not doing what I call the basics, which are eating whole, nutritious food, moving your body, getting sunlight, managing your stress, and sleeping well, then you're probably wasting your time, my time and your money, because everything that we're going to do is not going to work very well in the environment that you are creating.

And so sleep is one of those really important things.

How Sleep Affects Anxiety, Depression, and ADHD

And I just think it's not, you know, they don't teach us about it in med school. Really. Right. Like we don't I mean, we know you need to do it, but that's all they tell you.

And there's not a lot of good resources for people about sleep in general. Right? It's like, okay, well, get off your phone, but there's no real, like, good, explanation as to why people have issues sleeping, why it happens at different times, different things to do.

So I'm really happy that you agreed to come in and chat with our audience. And in general, I want to kind of focus on anxiety, depression, brain fog type symptoms.

Just like I can't get anything done. It's my understanding that a lot of these symptoms sometimes, like not only can sleep affect them, like it's kind of like this evolving door, right?

Like if you have these symptoms, it could be from lack of sleep. And if you're not sleeping well it can cause these symptoms. So it's like what causes what right.

Yeah. And I see this all the time for people who come to consult with me, they have, a host of nonspecific symptoms. And they're concerned about other diagnoses like ADHD, depression, anxiety, because there's so much overlap with how those disorders express and sleep deprivation or an undiagnosed, untreated sleep disorder.

So part of my role is to sort of take a comprehensive look at a person's situation, their medical history, and even their mental health to figure out exactly what's attributable to sleep problems versus other things.

I like that. So yeah, that kind of. So my first question for you is like, in what ways do you sleep anxiety, depression, ADHD, like how do they all interact?

Can you give us like, you know, I guess big overview of that. Yeah. You know, there's, there's no mental health disorder in which sleep is unaffected.

So every psychiatric diagnosis out there has sleep disruption as one of the features. And it's a matter of frequency and degree, but it becomes sort of a, feed forward mechanism or someone call it a downward spiral, because if you're not sleeping well, your brain doesn't work well.

And if your brain doesn't work well, you don't sleep well. And so this that feedforward loop can really work somebody into a tough spot where they're using medications, they're using substances, they're using maladaptive coping mechanisms to try to pull themselves out of the situation.

One way to think about it is sleep is an enhancer. So if you're getting good sleep, you feel good. And that's one of the natural pleasures available to us in life.

That feeling of being well-rested and feeling like you were able to get that delicious deep sleep that we all deserve. And so that enhances our life. That makes us happier, more, present with family, emotionally regulated and better decision makers.

On the other hand, if you're not getting good sleep, then that enhances things in a negative way, so it makes the world look darker. Our negativity bias is more profound.

And it really, sort of puts the lid on creativity and problem solving that all of us need just to make it the world as human beings so it can make, situations of anxiety or depression worse.

Because if you feel like you've lost the ability to make good choices or troubleshoot things going on in your life, it really accentuates the depression or the anxiety that you're dealing with.

So sleep, and emphasis on doing good behaviors to get healthy sleep is a health step that is foundational. And to your point, it's something that you need to address.

If you're dealing with mental health issues. I would completely agree. So how do you know if anxiety, depression, and ADHD, are related to or made worse by like this sleep problem?

How would you know that? I advise people to take a look at their nighttime symptoms and their daytime symptoms. So, sometimes just having things, reported to you can be insightful.

So snoring, restlessness during sleep, some, sleep behaviors can occur that are kind of red flags for a person's sleep quality. If you're not getting enough sleep that can contribute, to mental health disorders.

Recognizing Sleep Problems in Women

And if you wake up with different symptoms like wake up with, sore legs or restless legs, wake up with gasping for breath, these are indicators that there's a problem that needs to be addressed.

And it's interesting because even though all of us sleep, all of us experienced sleep because it's a state of unconsciousness, it's a blind spot in our lives.

So sometimes sleep testing is necessary to take a deeper look. On the flip side of things, you have daytime symptoms. So how alert do you feel? You should look for your peak alertness to be in the late morning, usually around 10 to 11:00 in the morning.

How well are you able to concentrate during the day? What's your memory like? How is your mood regulate. And so if those things are suffering, and especially if you have sleep symptoms that go along with it, then it makes sense to maybe have a consult with someone like me who can work out what needs to be the next step in determining if sleep plays a role.

I think those are good points for sure. I think that a lot of times people, especially women, if you're listening to this, like we maybe just negate those things or we just, you know, keep going, keep going.

We don't really listen to ourselves. And so if you I think a good point and correct me if I'm wrong, like if you're somebody who wakes up and you have from the second you wake up, you're just having a hard time getting out of bed.

You're tired, you're cranky. I mean, that's not normal. If you're getting good sleep typically now, if you only slept for hours, that's one thing. But if you're somebody who's getting a proper amount of sleep ish and you wake up and you just don't feel really rested or, well, then I tell people all the time, like, there's probably an issue with the architect of your sleep or how you're sleeping, or like, I need you to go talk to a sleep doctor.

I need you to have a sleep study because I don't know, you know, I'm not there watching you. I, I do have a question for you, though. What are your thoughts on, like, aura rings and these devices that track people sleep?

Do you think they are helpful and beneficial? I do, and I'll, I'm not a person who likes to sugarcoat things, so I'll give you the straight answer, which is that we are only really at the beginning of leveraging consumer health trackers to help us uncover features about our sleep.

So I have two rings that I'm wearing right now, and I test these things all the time to. Figure. Out, you know, how well are they performing. So as a general rule, sleep trackers like aura, Fitbit woop.

I'm trialing the ultra human ring right now. All of these, trackers are pretty good, actually, at determining when you fall asleep and when you wake up.

So kind of the bookends of your night. Now, they report sleep staging, for example, but they're not that accurate right now, maybe about 70%, 80% accurate at best.

And the closer you are to the population of people that the devices were, sort of researched on, the more accurate they're going to be. So if you, deviate from that health wise, age wise, weight wise or sex wise, then they are less accurate.

Now, I want to circle back to something that you said, which I think is really important and that is advocating for women's sleep. Women have more nonspecific sleep wake symptoms, and those can get mischaracterized as depression, anxiety, ADHD, bipolar disorder or just periods of high stress.

And I see this routinely, because women, just present differently. And historically, all the research and clinical experience has focused on men's sleep.

So this is kind of the template on which we look at sleep, as a whole. But women are different, and it's a little bit similar to how women have different symptoms of a heart attack.

You know, it may be more indigestion or back pain instead of the crushing pain radiating down the arm. So I really advocate for women being one, but also caring for my patients who have very different presentations of sleep disorders compared to men.

So this nonspecific sleep wake symptom is that like, you know, I hear women say all the time, I wake up at 3 a.m. and I can't go back to sleep, and I don't know why I woke up.

Is that a nonspecific sleep wait, wake? Same symptom or what does that mean? It could be. So there's an emotional and intellectual burden that women carry as well.

And this is part of the way that we're socialized. We're caregivers for the generation above and caregivers for the generation below. And I think women's brains become quite busy, at the beginning of the night or in the middle of the night.

And that's a direct, competitor with sleep. Another example of a nonspecific symptom is the whole concept of sleepiness during the day. It's more typical for me to talk to a man who says, I can't stay awake in meetings, or I can't stay awake when I'm watching TV at night.

Women don't usually say that. They will instead report feeling just tired or exhausted, or they don't have enough energy, but they're not dozing off. Typically.

In fact, it's it's rare that I'll have a woman say, like I could nap at the drop of a hat. It's more that tired a symptom, and that's nonspecific. But if you scratch the surface or do a sleep test, oftentimes I find something that would have otherwise gone unnoticed.

That's true when I think about it. Like I can feel tired in my body, but it's not like I'm ever going to take a nap. Whereas my husband can sit down and watch TV and just like, take a nap.

Sleep Trackers, REM, and Heart Rate Variability

And the same thing that you said, like, our brains are very busy. I tell him all the time, like he lays down and we can be talking. And he's like, well, you know what?

I'm like, how did you do that? Like, you know, it's just like they can like, disconnect and just like, leave the world. Like I was like, I'm sitting there thinking about all the things, you know.

So that's interesting that you put it like that. So what? How so then the symptoms of women sleep and sleep problems and women are definitely different and than women and men are those the only ways that you feel that they're different?

Are there other ways just by the things you were saying like how we describe the symptom? Do we have other issues in how we sleep differently than men?

Is any of it hormonally related? Oh, definitely. So you're talking about reproductive hormones. There's, changes in sleep architecture among women who are, menstruating, girls going through puberty, pregnancy, perimenopause

and menopause.

All of these hormonal shifts have a sleep component that goes with it, and it might be good or bad. For example, women going through perimenopause and menopause typically notice a decline in their sleep quality that's not only related to hot flashes, or vasomotor symptoms.

So there is a reproductive, hormonal component. But I also think that even though, we can measure lots of things about sleep, it's still a very young field.

And we're not measuring something when it comes to women's sleep. Here's an example. When big populations of men are compared to big populations of women, what's found about women's sleep is that we sleep a little bit longer, that we have a little bit more slow, a deep sleep.

And yet women consistently report less sleep quality than men. So we're limited a little bit by what we can actually measure when it comes to sleep. And for women, it seems that there's something missing.

There's a blind spot that would more directly correlate with a woman's experience of their sleep. I wonder if some of that, and this is just me as an endocrinologist, is related to testosterone, because I will tell you that.

And what I see in practice, men with lower testosterone have a lot of the same sleep symptoms as women. Like I wake up at 3 a.m. they're just tired. It's interesting.

And as soon as you fix their testosterone, I feel like their sleep gets a lot better. And then women, you know, lose testosterone. Just like men, especially in their 40s.

And I replace testosterone in women sometimes, when we need to. And I will tell you that I have a questionnaire that they fill out. And one of the fastest things that I see improve on that questionnaire, which is interesting, is sleep when you give a woman testosterone.

So I wonder if some of it has to do with that. Right. And that's why they just like men just pass out and go in this lovely land. And men are just happy.

Fine, because they have way more testosterone than us. So and then obviously when you lose estrogen as a woman and progesterone is going to affect your sleep.

But I wonder if that's a lot of it as well. So you said something. I want to go back to the ordering because you said something. And I know people. I have this question.

You said that the closer you are to the population that they made it for, like, what was that population? Is this like a 30 year old male? Like, what is the population that the ordering is the most specific in?

Yeah. Or has gotten much better, I have to say, a couple of years. I remember is the summertime. I was I had been using aura routinely and I noticed there was a change to their algorithm, and all of a sudden it was much more in line with my experience of sleep.

But also I routinely test the aura against home sleep apnea tests or, level two devices and different, other pieces of technology that would be considered medical grade.

So, yes, historically all sleep has been on like young men subjects. But, things are improving. So this is a bit of a moving target. And there are different, sort of success rates for consumer technologies, for example, not to throw shade to Garmin, but historically Garmin is one of the worst, trackers for sleep and accurate, sleep metrics.

Fitbit tends to be good or tends to be good. So, you know, I think we're getting better. Things are moving, the algorithms are expanding. And if you think about all of this collective data we're getting from people who are using the devices, you would expect things to improve. So, I think the wild card here then becomes like medical

conditions, some environmental factors that might affect sleep.

And as you know, the human body and the human experience with the external world is a very complex situation. So from one night to the next, you can have remarkable variation in your own sleep.

Even a sleep medicine expert doesn't get perfect sleep every night, even though I know all of the things to do. So it's it's, it's like we're getting all this information, but it's on a backdrop of variability.

Anyway, what I like about the consumer devices, though, is it brings sleep to the forefront of our conversations, and it helps us to connect. What am I doing that improves my sleep or what am I doing that makes it worse?

So it it's a behavior modification tool. And for that reason, I think it's well worth it to track one's sleep. Yeah. To your point, you know, when I because I have an aura as well and wearing.

And when I start using that app, especially when you're sleep spat, it will prompt you like what was different last night? Did you have alcohol? Did you?

And I thought it was just doing that so that I would recognize the things that were making my sleep worse, which I have changed a lot of things. But to your point, they're probably doing that to track things to and to figure out variations and, and for, you know, the benefit of what they're trying to learn, too, which is was pretty fascinating.

And so then they're, they're updating this information. How do they know whether you're in REM sleep or deep sleep or like, how are they just assuming based on like, how you're moving your breathing, your heart rate, like, how do they know that?

Yeah, REM sleep is kind of my white whale. If I'm Captain Ahab. And part of the reason is, you know, we all need REM sleep. We all get REM sleep. We could all stand to have more of it, but it's one of the more vulnerable sleep stages, especially in terms of breathing.

And a feature of REM sleep is you get some, temperature variability. So that's one of the correlates. You have some heart rate variability that's more consistent with being awake and there's an algorithm that kind of takes a bunch of metrics and then predicts whether you're in REM sleep or not.

We know that for humans, in the beginning of the night, you're going to have very short, brief periods of Ram, and those will increase as the night goes on.

So there's a probability factor there as well. But, REM sleep can be tricky. And it's one of the least accurate sleep stages when it comes to consumer health devices.

And if you look at kind of the opposite of REM sleep, it's slow wave, deep sleep, where your heart rate is very regular tends to be a little bit slower, and your breathing is very regular as well, which produces more regular, blood oxygen levels.

So that's another algorithm where it's spitting out, like this prediction that you're in slow, deep sleep. Okay. That makes sense. So what can you explain to people in general?

You said something about HIV. I think changes in HIV. What is like in general HIV. What is it, what number do we want and then what affects it when we're sleeping.

Like, is it just part of sleep that changes HIV? Like, does that make sense? Yeah. And with your aura, you've probably seen that metric recorded. So let me just say that the research on HIV is a little bit in its infancy right now.

So we don't have good normative values or even a lot of perspective on what you can expect, based on your age or your, other components of health. But, what is known is that it's better in general to have a bigger heart rate variability.

That's what age HIV stands for. A bigger heart rate variability means, in general, a slower heart rate with more space from one beat to the next. And that indicates a higher level of parasympathetic functioning.

So that's that rest in digest mode that we all want to spend most of our time in. But we have competing factors like stress, alcohol, sedentary lifestyle, dehydration, poor diet.

Why Women Wake at 3 A.M. and How to Respond

All of these things can conspire to put us more in a sympathetic, nervous system state, which is the opposite of parasympathetic state. Caffeine is another thing that will reduce your heart rate variability, and it's something that I counsel people on regularly as they're kind of self-medicating with caffeine to compensate for sleep issues.

But I think the heart rate variability, just looking into the future will be a bigger, have more weight as a health metric and really inform how well we're doing with things like stress management and heart health.

Yeah, it's something that I definitely look at on my wearing, and it will kind of tell you, you know, your readiness score and things like that. I do think that sometimes I'm like, I don't know that that's accurate.

Maybe I don't know where that's coming from. But I mean, I don't know, sometimes maybe you're not really super in tune with your body either. So I do think that the readings are good.

I think that I've changed a lot of things. One thing in particular, just to be honest with you, is alcohol. Like, you know, I was never a huge drinker, but I would have it a glass of wine or, you know, whatever.

And every single time I had alcohol, it changed my RV, it changed my REM sleep change, all sorts of stuff. So I told my husband, you know, last month I was like, I'm not drinking anymore.

Like, I'm just not going to drink this year. And my it hasn't done weird things to my RV. So I do think that being able to see that is is pretty interesting because it's never it's not like I woke up, you know, with a headache or felt bad, but sometimes I would wake up and be like, oh, I just don't feel like I got like the best sleep.

And when you can actually see that, to your point, caffeine sometimes I'll have tea later. I don't do that anymore. So I do think it's, it's beneficial for people to see that for sure.

Yeah I agree. And you know, I think the alcohol issue is one of the, biggest myths I dispel as a sleep medicine physician. This concept that, oh, alcohol helps me sleep.

You know, the nightcap is something that people often use is, a way to get to sleep faster. But that's literally where the benefit ends. Every, drink that you have has more and more, negative effects on your sleep and causes some dehydration during the night, which makes your heart beat faster and reduces your HIV.

For sure. Makes you hot. All sorts of things. Yeah. So why do you think can you, for the women that are listening to this, why do they wake up at 3 a.m.?

I know you said something about their brains really busy in the middle of the night, but is there like some loss in hormone that causes this three and awakening thing?

Is it something that they're doing? You know, the women that are like, oh, I wake up every night at 3 a.m.. Some of them wake up anxious, some of them wake up because they have to go to the bathroom.

But is there like something physical, logically that's going on, something changing with their hormones? How do you explain that to people and then talk to us about what people can do to like improve their sleep and make that not happen?

This would be, what I would wave a magic wand at if I had one. You. So you already listed some of the factors that,

prompt, a middle of the night awakening.

And the first thing frustrating thing about it is it's not necessarily abnormal to wake up in the middle of the night. I want everybody to hear that. You know, waking up in the middle of the night doesn't have to be abnormal, especially as you enter your fifth decade, your six decade of life.

You know, you can't expect to sleep like you're in your 20s forever. However, if you wake up in the middle of the night and you think, here I am again, it's 330 in the morning, I'm never going to be able to get back to sleep.

If I get back to sleep within the next 30 minutes, then I can get two more hours and I may be able to function well. Do you see this self-talk that goes on and you add a layer of suffering to the situation that only drives sleep further away?

There's this concept of a negativity bias that becomes really prominent, in the middle of the night and it's like reverting to a toddler form. Your brain is basically functioning like, a toddler brain catastrophizing overestimate eating, worrying.

And it's a period where, you know, we really make it hard on ourselves if we start thinking about the future or the past. And that prolongs the time that we're awake.

Women, I think, have a tendency to have that internal chatter, that self-talk that has a negative vibe and that just prolongs the awakening. Plus, if you've already satisfied some of your sleep need by sleeping the few hours before, it's harder to get back to sleep.

So what can you do about it? Well, first of all, there are several techniques, and so you'll need to do some self-experimentation to see what works best for you.

But if you tend to wake up and catastrophize or worry, it helps a lot to get out of bed or even just turn on a low light and stay in bed and write those things down.

Does a couple of things for your brain. One is the writing slows your brain down and it makes your brain focus on getting the words onto paper. The other thing that it does is it helps you feel seen, soothed, and safe.

And those sorts of emotions are consistent with sleep, so you may have a chance of getting back to sleep if you can calm your physiology for extra credit.

Sometimes, for people, I'll recommend that they have a highlighter and actually highlight things that they can do something about, because a lot of the stuff your brain comes up with, you have no control over.

So making the distinction can be really helpful, because if you can't do anything about it, there is no point in let it bouncing around in your head. Sometimes getting up out of bed can be helpful to do a reset, stretching, deep breathing and that type of thing.

But if it's happening routinely, you mentioned cell phones before, so I want to say if your brain is coming up and being busy in the middle of the night, it may be an indicator that you don't have enough white space to let your mind relax during the day.

Now, I'm going to ask you something. You tell me if you've ever had this experience. Have you ever been, like, taking a shower and you're kind of going through your shower routine, and then all of a sudden you realize, oh my gosh, that's a really great idea, or you solve a problem that you've your mind's been working on.

Has that ever happened to you? Almost every day. I. Have, yes, because I know this. So I have a way that I try to make this happen in the morning because I know I'm creative because I do this brain dump thing.

But yes, I know what you're talking. Yeah. Yeah. So what's happening is that your default mode network is is being

active. And it's like when your brain gets a chance to, like, move the puzzle pieces around and find it a piece that fits.

If you're always connected to your device or you're trying to make it through a to do list with 33 items on it, you don't have that opportunity for your default mode network to play during the day.

You don't have that white space, so it's going to come up at night and you'll have a busy brain that you have trouble turning off to go to sleep. I like that default mode network.

Yeah. So how long will it take someone to see improvements in their sleep when they start working on their sleep quality? Like, let's say somebody does all the things they're supposed to do, right?

Like I'm going to go to bed at the right time. I'm not going to be on my cell phone. I want to make sure I have white noise. I'm not going to have caffeine. I'm not going to have alcohol.

What Happens in the Brain During Sleep

You know how long? I'm assuming this isn't just like an instant thing. So how long do you typically tell someone, hey, you know, you're going to have to do this before they start noticing differences in their sleep?

The first thing I want to say is it's worth it. It's worth it, and it's going to take you longer than you want it to. Usually. Usually it's going to take at least a week, but more than likely 2 to 4 weeks before you're really like, okay, now I'm hitting my stride.

It takes a little while for you to establish or reestablish trust in your sleep. It's kind of like you're in a relationship, right? So you have to show up consistently.

You have to do all of the unsexy things that it takes to sleep well, so your brain can trust that it has that time, reserved to sleep. Yeah. So you mentioned your brain's kind of like a toddler brain overnight.

I like that tell my brain, can you explain to people what happens when you sleep in your brain? Because I think there's a lot of misconception as to what's happening.

Like, are we forming memories? Are we not? Or are we cleaning our brain? Is our brain just mush like what is actually happening? Because I think it's important for people understand you know, a lot of people say, well, sleep's not really that important.

I can sleep when I'm dead, yada, yada, yada. There's actually a lot of really important things that happen when you sleep, especially from a hormonal standpoint that I'm aware of.

But can you explain to people why it's important for them to get a certain amount of sleep, how long you think that adults should sleep, and then you know what's going on in their brain when they're sleeping?

Yeah, those sentiments like, I'll sleep when I'm dead or, you know, there's some sort of, weakness about sleeping. That's, a very clunky opinion. And it's really been disproven by science.

Adults need between 7 and 8 hours of sleep to not only be healthy from one day to the next, but also to preserve their long term mental, cognitive, cardiovascular and metabolic health.

That's well known. When you start getting less than six hours of sleep, you're really damaging your health. In fact, a study was done since we talked about young men earlier.

I'll tell you, there was a study done looking at, a group of young men, college age, totally healthy. What happens if you sleep deprived them for four hours a night, six nights in a row?

Well, what happened was they became pre-diabetic. So there's something really important about sleep and all of the things that you mentioned or things that happen, the brain washes itself, cleanses the metabolites, from all of the exposures.

And thinking that we do during the day, it moves some short term memories to long term. It decides which, pieces of information have importance and how much importance to assign those things.

We lay down procedural memory. It's an emotional regulation tool. And one of the functions of dreaming is basically to use this virtual reality function that our brain is capable of to process experiences during the day, including stressors.

All of these things are so critically important to our mental and cognitive health. It kind of reset us and makes us new for the next day. So we need that, sleep in order to function.

Our best. The part of your brain that's most vulnerable to sleep loss is your frontal lobes, the parts that make decisions, the parts that are, you know, kind of the intellectual, part of you, it's.

And when that frontal lobe gets sleepy, it becomes leaky. So then the middle part of the brain, the emotional center starts to act up. And that's the toddler part, the part that it's going to be emotionally dysregulated.

So sleep is really for the newest parts of our brain. The emotional regulation happens, too. But, it's it's so important that it takes up a third of our 24 hour day.

So I think honoring that is really important. So when you're sleeping, when I just heard you say to is, then if you aren't sleeping enough, your frontal lobe becomes leaky.

So then your midbrain is going to start acting up. So you're going to have emotional issues and behavior issues. So if you've already are having issues with anxiety and depression and then we're not sleeping on top of that, it just makes it worse.

Not to mention when we're not sleeping well, we're not stimulating a lot of growth hormone. And growth hormone is actually needed to make thyroid hormone and to make estrogen and testosterone and progesterone and all the things that we need to make us feel better and function during the day.

And so that's why it's just this big, you know, negative feedback. Unfortunately, once you start sleeping, it's like this spiral. So it is really, really important for people to to get a handle on it.

Right. And like you said, it's going to change when hormones change. And so just making sure that we have good coping mechanisms, good ways to understand how to sleep and finding providers to help you, you know, figure out if this is an issue and not just like woo woo.

Your symptoms, like you said to begin with, is really, really important. Agree a beat my drum about about this all the time. And it's I think the term sleep hygiene is a little bit cringey to me because it's so overused.

But I think, you know, when you make a choice to reform your sleep, it's like you're casting a vote for your best self every single night. And over time, that adds up.

It protects your longevity. It protects your mental and physical health. And really, it helps us be the people that we are striving to be to maximize our potential.

Yeah, I like that. Okay. So I think we kind of hit on everything I wanted to hit on. Do you feel like we missed anything in particular about sleep that's really important that people need to know?

I think we hit on a lot of things, since, you know, since your summit is about hormones, I will just say one last piece, which is that sleep can affect your hunger hormones.

This is very hot right now. And it's not just sort of, the physiologic hunger. It's also, the emotional hunger that is not addressed with medications like GLP one agonists or, other.

The oral medications, for people who are on any kind of weight loss journey, you have physiologic hunger, you have emotional hunger, sleep gets, to a root cause that can help you lose weight by addressing both physiological and emotional hunger.

I like that, okay. So that's good to know. So if you're somebody listening and you've had a hard time losing weight and you maybe have even tried the GOP ones and you're still having issues, it could be some emotional hunger from lack of sleep.

And do you think that has anything to do with, again, when we're sleeping like we're supposed to, and our brain is able to clean itself out our lymphatic system and all that, and we're actually able to make hormones appropriately, then our leptin and our ghrelin and our insulin and our cortisol are actually regulated correctly.

And so maybe that has something to do with it. What are your thoughts about that? It definitely has something to do with it. And another component is that if you're getting healthy sleep while you're losing weight, it helps you preserve your muscle tissue, which is metabolically active.

So it it's sort of an accentuate or to help with calorie burn because you're going to keep your muscle around. You're not going to get the wasting.

Sleep, Hunger Hormones, and Weight Health

And that can come with weight loss. Yeah, that makes so much sense okay. Anything else that we missed. I think though about does it. Okay. So I appreciate you coming and explaining this to everyone.

Obviously we'll make sure that all your stuff is linked so people know how to find you. Do you want to tell people are you active on social media? Do you have a website? Are you on YouTube?

Like how can people find you if they want to learn more information? I typically direct people to my website. Super Sleep md.com. I help people with obstructive sleep apnea and insomnia get all the deep sleep they deserve.

I also have a limited, coaching practice. If people are interested in that, they can go to AOL's md.com and sign up for a, consultation where we determine if it's a good fit.

Okay. So I also repurposes summit sometimes for my podcast. And so there's three questions that I always ask my podcast guests. And so I'm going to ask you these questions I think it'll be interesting for your answers.

And don't overthink I'm just very easy questions. But the first question is what is one food that's most beneficial and why? For me, I think avocado is what I'm going to go with.

I love avocados. They make things taste yummy. They have the fat content that I like. They've got the color. I think they you can do great things with texture.

So that's top of mind for me. Okay. Is there a food in particular that stands out to you that maybe helps with sleep? You know, there's, there's these ideas like tart cherry or kiwi help with sleep.

And the truth is, there's no one single food that's going to move the needle that much. So when I counsel people about eating to sleep, well, I tell them, eat, low processed foods, get your fiber in, get your healthy fats in, and stop eating three hours before you go to sleep.

So those are kind of the low hanging fruit, so to speak, when it comes to, managing your food and sleep together. Okay. What is one thing that anyone can do that will improve their sleep?

Let's say I normally ask health, but what is one thing anyone can do that will improve their sleep that's completely free? I my mind goes to exercise or light exposure.

Both of these things improve sleep. So bright light exposure when you first wake up in the morning, sets a little timer in your brain such that 16 hours later, you're more likely to be sleepy and fall asleep.

Well, exercise kind of the same effect, right? You're you're really kind of, getting your heart rate up. You're getting your body temperature up. And what that does is it pulls back the pendulum for wakefulness such that it releases and swings far the other direction for sleep.

So light and exercise are two things you can totally manage. It can totally be free to improve your sleep quality. Love both of those. And then the last question is, what is one thing you wish you would have known about your health or health in general?

20 years ago that you would have done differently? That's a good question. I think I, I wish I would have known what it took to get over my own insomnia.

That was a hard thing for me. And it's part of the reason I'm asleep. Doctor. Now, I have been through a couple things in my life. That really knocked me back.

And I'm prone to insomnia. Insomnia was a huge problem for me, and I had to dig deep to overcome it. So I like to say I'm not just book smart about sleep.

I'm street smart, too. And I think when I was in it, I couldn't see my way out. Now I know what it takes, and I think it makes me a better doctor. As a result.

For sure. I completely agree with that. Most of us that are really passionate and, you know, compassionate about what we do are it's because we were helping somebody that we once were.

Right. So that makes sense.

Final Advice and Where to Find Doctor Wells

And, you know, to all the providers listening to this to and I'm sitting here thinking this, most providers, if they've gone to medical school have suffered with some sort of sleep deprivation, sleep insomnia like, especially if you went when I went when there were no workout rules. Right.

Like you definitely stayed up and did shift work and just did really bad things to your body. So, you know, if don't do that, like if you have the option, don't do that.

You know, and that's that's one of the things I wish I would have known 20 years ago about my health is how important sleep was, because I kind of was in that generation of like, oh, well, you can sleep when you're dead. It doesn't matter.

Go go go go go, even if you do feel like physically tired. And I just wish that that's something I would have, you know, really latched on to in my 20s.

And instead of, you know, worrying about what everyone was doing at 10:00 at night or 11 or 12 and all that, I wish I would have just went to bed like I do now, like, because I have FOMO now.

I don't care if it's past 9:00, you will find me at that period. Like, you know, I, I agree that's a tough lesson to learn, isn't it? I mean, especially for someone who has a high internal drive and I, I talked to physicians, who, you know, to this day have sleep problems.

Those who take call, those who have, you know, ICU, ObGyn, ed careers, sleep directly competes with your

decision making and your safety on the job, your safety off the job as well.

So, yeah, I, I applaud that, I think that it's a tough lesson to learn. And sometimes we don't learn it until we're in our the middle of our career. But, just for your well-being, it's so important.

I'm going to. Great. Well, thank you, Doctor Wells, for joining me and helping educate all of our guests. I appreciate you. And then if you're listening to this and you listen to this podcast and you think this would be beneficial.

So if you know anyone who's struggling with sleep, which would be most women in their 40s or 50s or, you know, anyone in general who this would help benefit them, please make sure that you share this episode with them.

Make sure you leave us a review. And like or follow our show we're on every Sunday and then make sure you tune in next week for another episode. Thank you.