Revitalize Health With Better Sleep Habits Transcript

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Introduction to Sleep and Health

Welcome back for another discussion. And this time we're going to really delve into the world of sleep with an amazing expert, Dr. Audrey Wells, who is a sleep and obesity specialist.

Welcome. And I can't wait to dove into our conversation today. Me, too. You know, sleep is one of my passions, and I'm really happy to get a chance to talk about it.

Fantastic. Well, let's dive right in. So how would you say sleep directly impacts, for example, blood pressure or other chronic diseases? What are the physiologic mechanisms that are involved?

Like what is good sleep do and maybe what does sleep disruption or difficulty with sleep actually entail? Yeah. I want to first make the point that getting healthy sleep is really valuable.

It's something that I think a lot of people discount or negotiate as they are encountering multiple competitors for their time and their energy. Sometimes sleep gets pinched off either at night or in the morning because we are always trying to get more done during the day.

But the truth is healthy sleep means that you can have a more healthy life. And one of the major functions of sleep is to enjoy sort of a state of calm.

How Sleep Affects Blood Pressure

So you're reducing the sympathetic overdrive, that fight or flight response that's so present and at the ready during the daytime. So sleep is sort of the antidote to that.

It's a parasympathetic state where all of your systems are in relaxed mode. They're in repair mode. You're basically cleaning up the kitchen, restocking the refrigerator, and getting ready for the next day.

So if you're not getting healthy sleep, we know that it ends up looking like disease over the long term. It's not just feeling tired from day to day. It can actually contribute to the progression or even the formation of disease.

Wow. So do you. What are those exact mechanisms, would you say that leads to, for example, something like hypertension? What exactly is it about sleep or the inability to get good sleep or unable to have regular sleep patterns that can actually start that process?

Or is it chicken? Like what came first, the chicken or the egg type of thing? I think there is a little bit of that. You know, certainly there's a lot of overlap with people who don't get enough sleep or have a sleep disorder like obstructive sleep apnea, for example.

Those folks can have increased risk for high blood pressure. And the opposite is also true. High blood pressure is itself a risk factor for obstructive sleep apnea.

So there's a bi directional response there. One of the causative factors that leads to poor sleep in developing, developing high blood pressure or even other cardiovascular disease is that there is a loss of nocturnal dipping, of blood pressure, and that's related to this increased sympathetic tone.

So your blood pressure is is kind of modulated by how much the smooth muscle around your blood vessels is tone, and you lose that dipping where the tone relaxes.

Another potential mechanism is that which comes from inflammatory mediators being more prominent during loss

of sleep or interrupted sleep, probably from a sleep disorder that's known to increase the risk of cardiovascular disease, overlap with hypertension, diabetes and other problems.

So there's there's a complex relationship there. But the point I really want to drive home is that bi directionality between high blood pressure and impaired sleep.

Sleep Disorders Linked to Hypertension

So can you speak to some of these sleep disorders? I think many people are aware of, for example, obstructive sleep apnea. But what other are some other sleep disorders that might you know, someone has high blood pressure that they might be dealing with, especially at their fatigue that they're like, well, I don't have sleep apnea.

What other things could they be looking for? Yeah. So a lot of people ask me about insomnia. Is insomnia something that can lead to high blood pressure?

And the results are a little bit mixed when you look at the research data, it appears that people who experience insomnia, especially in their if they're in their midlife years, do have an increased risk for high blood pressure if that insomnia is chronic.

Older adults, for some reason tend to not have that experience. In other words, insomnia that leads to short sleep in the 65 plus age range does not have such a connection to high blood pressure.

Interestingly, restless leg syndrome is associated with increased sympathetic tone. There's an Italian group that does a lot of study with this, and what they show is that the periodic limb movement disorder, which is what's happening with a lot of folks who have restless leg syndrome, but it happens during sleep.

So these little leg movements during sleep, these twitches are associated with an elevated heart rate, which is transient and an increase in sympathetic tone.

People who get less than 6 hours of sleep per night on a chronic basis are also at risk for high blood pressure and even refractory hypertension, meaning they take three or more medications to control their blood pressure.

And unfortunately, this is something that's really prominent, especially in the last 50 years. People, Americans specifically report sleeping 2 hours less than they did in the 1960s and early seventies.

So as a nation, we're not moving in a great direction when it comes to preserving not only our sleep quantity, but our sleep quality as well. Which gets to the point that we hear that people should be sleeping 7 to 8 hours of restorative sleep.

How do you know that you're getting so people say, Oh, I'm going to bed at ten, but maybe they're waking up and then they're waking up early. Or like, how do we understand that we're actually getting the number, the amount and the quality of sleep that we should be having.

Are there any tools or anything that we should be doing to evaluate that we can do at home? Or do we need to be actually tested in a lab type setting?

It's a good question. You know, I think a lot of people come upon this decision point about, you know, recognizing that their sleep isn't as good as they want it to be and they're trying to decide if they need to seek specialty care from a sleep medicine doc like myself, you know, not getting restful sleep is one piece of evidence that your sleep may not be as healthy as it could be.

And that tends to manifest as problems with daytime sleepiness or fatigue.

How to Tell If Your Sleep Is Healthy

Running out of energy before your day is through. But it can also be really subtle, like problems with mood, irritability, impatience, you know, really feeling like you're not having that the social the social patients to deal with relationships and such that can be a manifestation of sleep, poor sleep quality.

Another thing to consider is that you know, I hear from a lot of people that they assess how well they sleep right when they wake up in the morning. And that's just a little bit off.

You should actually wait an hour to assess the night before, because when you first wake up in the morning, your circadian rhythm and that cortisol burst that you get not as anything pathologic, but just as a function of the circadian timing, are not fully online yet.

So wait an hour to kind of look back on your sleep the night before and say, was that my best sleep or is there room to be to improve? And you know, for most people who enjoy an overnight sleep schedule, assessing alertness in the late morning hours, typically between 10 a.m.

and 11 a.m., that's the period of the day when you should feel alert and awake, productive, kind of socially fluid. And then there's another increase in alertness around about the seven or 8 p.m.

mark. If you have a bedtime, that's around ten or 11:00. So looking at those periods when you should feel alert to ask, do I is one way to assess your sleep quality?

Something else I'll mention is that, you know, some people have risk factors for sleep problems that have nothing to do with symptoms. And here I'm talking about age.

So more people who are older have sleep disorders, weight people who are experiencing obesity, regardless of whether it's associated with another condition, can sleep more poorly.

And metabolic issues like diabetes tend to interfere with sleep quality. So if you have some of those conditions, my advice would be get on high alert to see if sleep is problematic and even potentially contributing to the conditions I just mentioned.

Hmm. Wow. Okay. So I do want to ask about some things like what do you think about the the risk, you know, the different types of technology that we can use, like the Whoop, for example, and it's structured around heart rate variability and looking at whether or not you actually had decent sleep and how much you should be exerting yourself the next day like.

Is there any scientific evidence showing that that's actually beneficial and we should be making decisions based on the information? I think it's there is, but it's a little bit with a grain of salt at this point.

Now, the consumer bought consumer wearable devices are getting better and better over time. So I think for right now, what I would say is most of the consumer wearables are really good at determining when you went to sleep and when you woke up.

Wearables and Sleep Tracking

A lot of them, including the ordering that I'm wearing, will make a guesstimate about what the space in between that looks like. It tells me how much slow, wave deep sleep I have.

It tells me how much REM sleep I have. But as a sleep medicine physician, I can tell you that at best it's an educated guess right now. However, what I like about it is that when I wake up in the morning, I want to see what did my ring report.

And so it's kind of elevated into my consciousness and can affect my decision making. So I think for people who are interested in these sleep trackers, that's a really important thing to recognize because it may change behavior.

And I think any time you're looking at positive behavioral changes, that tracker has value. I think that yeah, absolutely. And that's what I found outside of even just using something like the goop or like a continuous glucose monitor for diabetes, it makes them make better decisions because it's immediate, it's objective data.

It's not someone telling them an opinion or anything. So I think 100%. But speaking about behaviors, what type of behaviors should we be doing throughout the day or early evening to set ourselves up for the best possible?

What are those things that we can do on a regular basis to improve our sleep? I want to point out something really insightful in your question, which is that the way you sleep at night starts with how you spend your day.

Meaning it's not just the last hour before you get into bed that makes a difference in your sleep quality. Literally, when you wake up in the morning, your brain is getting signals that will affect how you sleep the following night.

Daily Habits That Improve Sleep

And some things that are really easy are to get bright light, meaning sunlight, preferably into your eyes as early as you can when you wake up in the morning.

Now, up here in Minnesota, in the wintertime especially, it's dark when I wake up and it's dark for several hours after I wake up. So I use an artificial light source in the morning, which is going to tell my brain that in about 16 hours it should get ready to sleep.

So not only does it help me feel more awake, but it also sets a little timer that makes getting to sleep at night more likely and more reliable. I like that.

Another thing you can do is exercise. So getting your heart rate up, kind of creating a contrast with sleep. Weight training exercises, balance exercises, cardiovascular exercise.

All of this signals your brain that it's time to be awake. And I like to make a little analogy with the pendulum here. So if you swing the pendulum on one side with exercise and meal timing and social connection and light exposure, the more strong signals you have, the more that pendulum is going to swing in the other direction at night with better sleep quality, more reliable sleep, and staying asleep longer throughout the night, or having shorter nighttime awakenings.

That's perfect. So we were just speaking about the behaviors early in the day, and I love that analogy of the pendulum. The more you're doing, the day swings better into the middle of the night.

And you mentioned having know better sleep quality duration. So so many people fall asleep. Okay. But then they wake up in the middle of the night, like 2 to 4 somewhere in there, and they struggle to go back to sleep.

What are those? Why do we do that one? And are there any other insightful things that we can be doing outside of what you mentioned before, to improve the duration of our sleep with less nighttime waking?

You know, I want to tell you that this question is one that I get all the time. And if I had a magic wand and I could wave it over everybody who had problematic nighttime awakenings, I would because this is a challenge.

So for historical context, in the past, before we had artificial lights or electric lights, it was actually pretty common for people to go to sleep at sunset when the sun went down or an hour or two thereafter wake up in the middle of the night, spend two or 3 hours awake, and then fall back asleep for a second period when and then awaken again when the sun came up.

If you look in the literature, you'll see references to the second sleep and also nighttime activities where people would tell stories and talk and have sexual relations and play with their kids and stuff.

So I think recognizing that a nighttime awakening does not have to be problematic is step one.

Why People Wake Up at Night

A lot of people think I should not wake up during the night and when they do, they think this is not right and they start doing calculations with the clock and they get very agitated, which only makes it more difficult to get back to sleep.

I want to tell you that it takes actually 3 to 5 minutes of awakening to remember that awakening. And if I had EEG sensors on your head, I would see between five and 20 arousal from sleep across the course of the night.

Well, we just don't remember all of these because we don't it doesn't come up to consciousness in a way that's stored in our memory. So I want to just normalize the fact that it's okay to wake up in the middle of the night, give yourself a few minutes, you will probably go back to sleep.

If you're having nighttime awakenings that are long, however, a lot of times people are stuck in their brain having kind of a monkey mind or a pinball effect or they're agitated in their bodies.

They don't feel comfortable. Their body feels like it can't settle down. And I have specific ways for working with people on that. But just to give you a little tip with the with the mind question, you know, usually if you can't go back to sleep and your mind is kind of circulating around, it's because there's something that's not enough, not safe or not congruent.

I mean, it's it's kind of out of integrity. For example, not enough can look like, oh, I don't feel like I did a good presentation at my job today. I'm really kind of ruminating about that and feeling like I could have done better.

That can keep you up. And so getting up out of bed, writing down all of the thoughts, just kind of evacuating your brain can really help to feel seen and soothed.

And then you go back to bed having purged all of that negativity out. Similarly, with not safe, you know, people can be worried about a medical test that they got and kind of fixate on that during the night.

It makes sense because at night our brain is literally biased toward the negative. So pointing that out and kind of helping people understand they don't need to trust those thoughts so much can help them to fall back to sleep.

So these are a few of the cognitive tricks that I use to help people kind of relax and fall back asleep again. But I want to point out, it's always tougher in the middle of the night because you've already satisfied some of your sleep need in the first few hours that you've been asleep.

So. QUESTION Could you explain what you mean by our brains are biased to negativity at night? Yeah, there's there's actually been studies done on this.

People have more catastrophe thoughts at night. There is more a sense of aloneness. People have more risk for even things like suicidality in the middle of the night.

And, you know, it's a little bit like your frontal lobes. The logical part of your brain is the most fragile part when it comes to sleep. So you remember I talked about the timer that set for 16 hours over the course of the day.

That is your frontal lobe expiration time. So at night, the part of your brain that inhibits your emotional center, which is biased to the negative, it kind of goes off line and in the middle of the night it's not functioning appropriately.

So those negative emotions can come out and drive the bus. You know, evolutionarily we were geared to look for threats in our environment, and that's what's being expressed.

Negative Thinking and Nighttime Awakenings

So it makes sense that in the middle of the night, you're going to be more fearful, more prone to characterize things

negatively, do black and white thinking, and just have maladaptive coping mechanisms, huh?

Excellent. So you also spoke to the things that we should be doing, the early bright light to kind of set the stage for the cascade of events to help us fall asleep 16 hours later and some different things exercise.

What are some of the things that maybe some of the behaviors we should avoid in the kind of let that kind of be our final question, just to kind of get people to look, these are the bucket things I need to do, and this is things that maybe I need to avoid.

Yeah, I have three big ones that I'd like to put out there as like really actionable steps. And the first one is not going to buy me any fans. I understand that totally, but I need to give it to you guys straight.

That is short wavelength. Blue light from an electronic screen is not helping you at night. Your dreams are not in this device, and a lot of people are under the misguided notion that it helps them to go to sleep.

And the truth is that is going to cause sleep disruption. So that's point one. Point two is please avoid eating 3 hours before you go to sleep. Now, a lot of people have weight loss or weight management on their mind, and this is totally in line with that goal.

What to Avoid for Better Sleep

So when you eat too close to bedtime or even during the night, your digestive system and the hormones that regulate appetite and satiety are not optimal.

So you can end up overeating. You tend to have cravings that are more in line with unhealthy snack foods and there's more of a propensity to put on fat, which is problematic.

But you also need to consider that acid reflux is a real problem and that can be experienced in the middle of the night too. I talked about light exposure.

I talked about food. I think the third thing I'd recommend is really avoiding too much sedentary activity during the day. You may have heard the term or the phrase sitting is the new smoking, and I think that's true entirely.

We're at our desk sitting down too much, and it's really important to get up and get active, not only is that good for your vasculature, including your cardiovascular health, but it also helps that pendulum, again, to swing up for a bigger arc.

So that exercise is associated with daytime and alertness and then being still and in the dark and relaxed is associated with sleep. No, I agree. I definitely have.

There's a point of not getting enough exercise that I notice. My sleep quality definitely is deprived versus the opposite. So fantastic. Well, thank you, Dr.

Wells, for joining us today on reversing your hypertension summit. And we really are thankful for you, people like you, and sharing your knowledge and wisdom with us today.

It was a pleasure. Great to see you.