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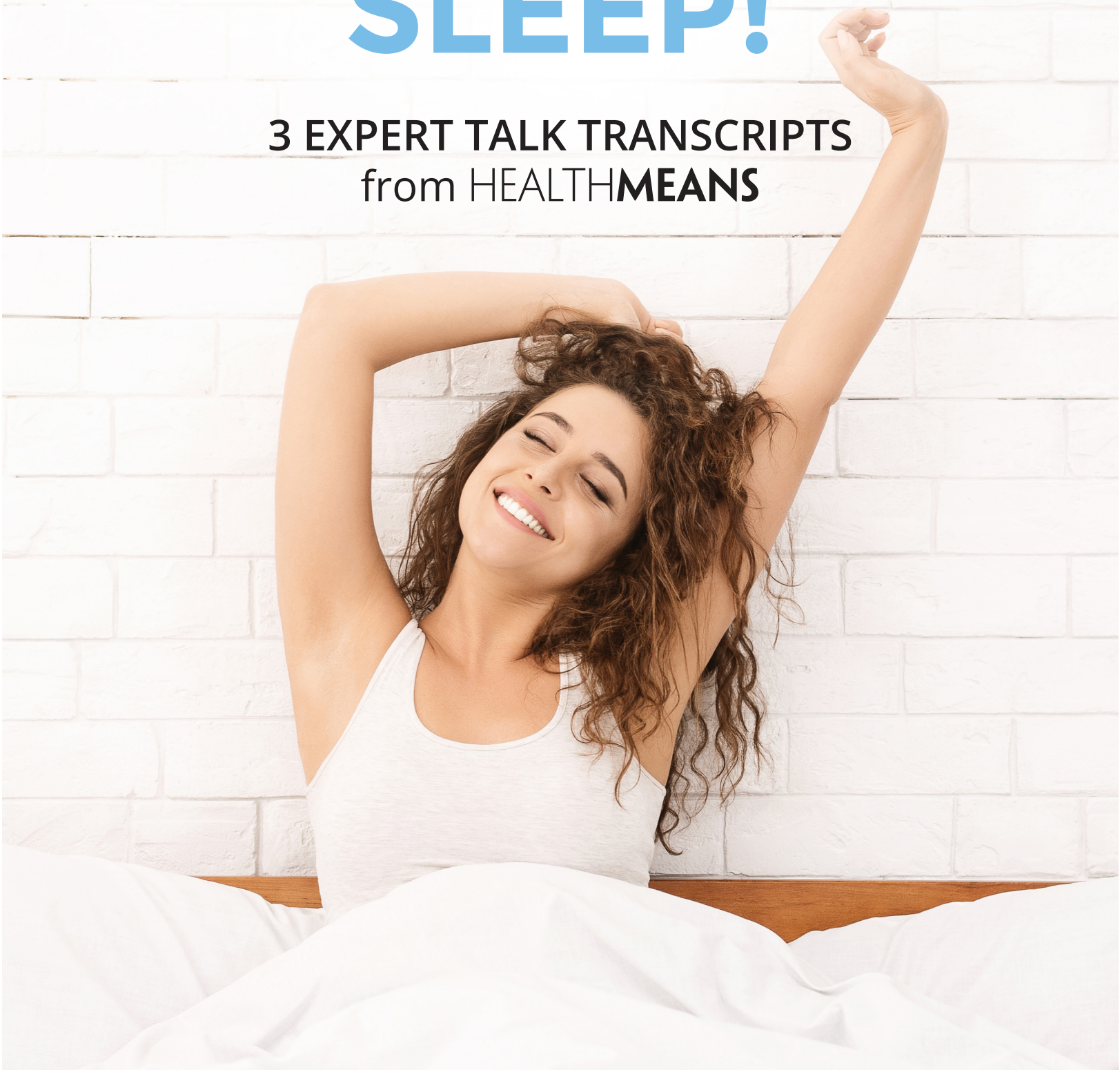

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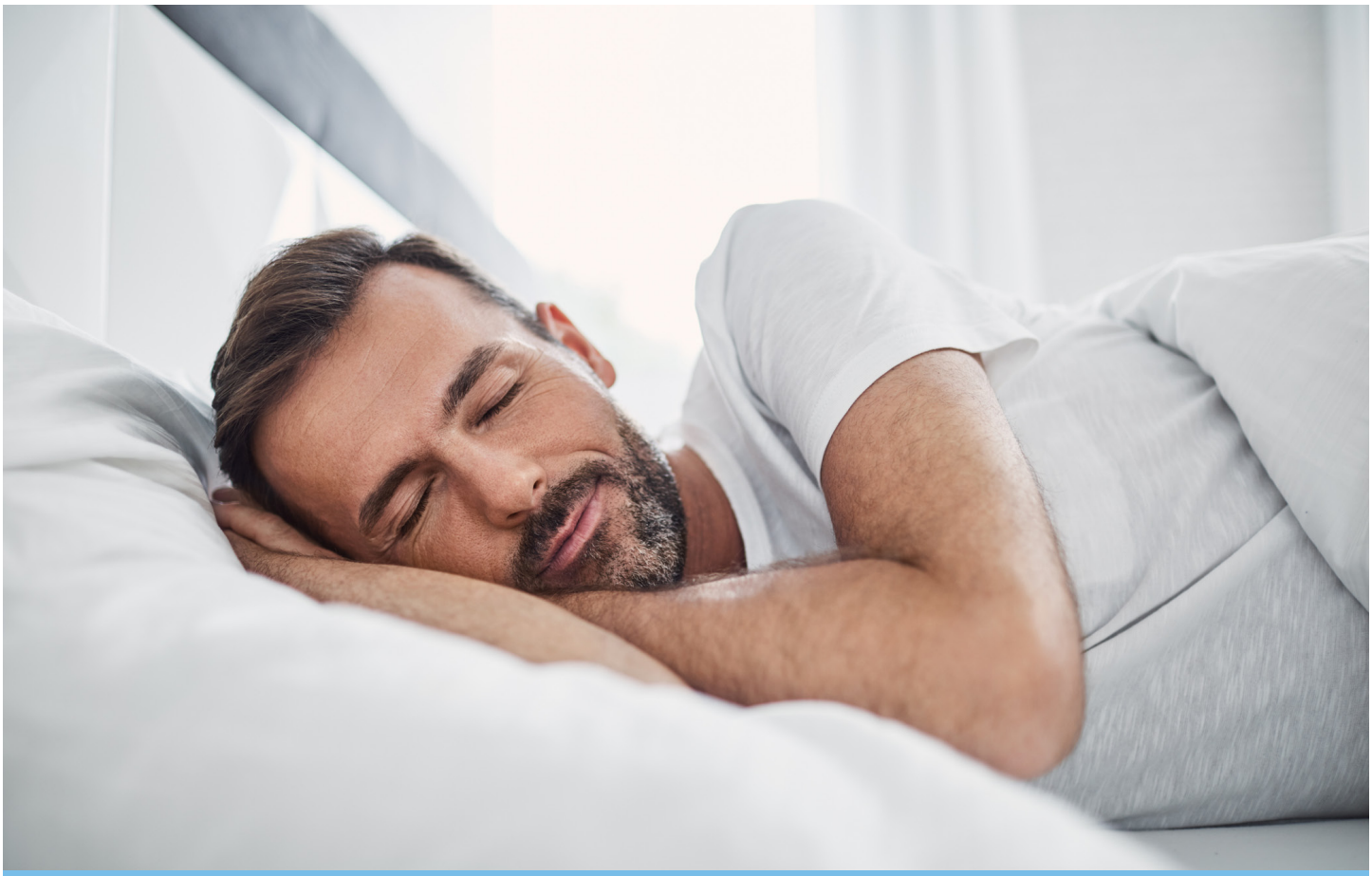

Sleep and Skin

Trevor Cates, ND with Michael Breus, PhD

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Dr. Cates: Today, I'm interviewing Dr. Michael Breus. And we're talking about sleep and skin. Thank you for joining us today, Dr. Breus!

Dr. Breus: Well, thank you!

Dr. Cates: So Dr. Michael Breus is a clinical psychologist and a diplomat of the American Board of Sleep Medicine and a Fellow of the American Academy of Sleep Medicine. Dr. Breus is on the Clinical Advisory Board of the Dr. Oz Show and has been on the show 23 times. Wow!

[Both laugh]

Dr. Breus is also the author of The Sleep Doctor's Diet Plan: Lose Weight Through Better Sleep and Beauty Sleep: Look Younger, Lose Weight, and Feel Great Through Better Sleep. In addition to his private practice, Dr. Breus consults with major airlines, hotel chains, mattress manufacturers and retailers to provide the optimal sleep experience for their customers. His audio relaxation CD distributed in Crown Plaza Hotels helps millions of people fall asleep each year. And for over 14 years, Dr. Breus has served as a sleep expert for Web MD.

So you've definitely got a lot of experience on this sleep topic.

Dr. Breus: I do! It's been my life for a very long time.

Dr. Cates: And 23 times on Dr. Oz. That's impressive.

Dr. Breus: It's been a great run. And Dr. Oz and I have had a lot of fun working together. And he, too, recognizes just like you have the importance of sleep and how it can affect the way you look, how you feel, and even your energy level.

Dr. Cates: Yeah. So let's talk about that. So how does sleep affect us? How does it affect our skin? How does it affect our health?

Dr. Breus: Well, so first of all, we all know that sleep is critical. And without sleep a lot of really bad things happen. And we know that a lot of people have what's called sleep deprivation. What's interesting about sleep deprivation is it's different for everyone. So I've been a 6.5 to 7 hour sleeper almost my whole life. But my wife, for example, needs 8.5 to 9 hours to feel good. So if she got the 7 hours that makes me feel good, she would feel sleep deprived.

So one of the things to remember for everybody out there is your sleep need is going to change, not only between you and maybe somebody that you love or somebody that's your bed partner, but also over the course of time. You may need more or less sleep as you get older and/or if you become more medically frail. So as an example if you have some type of medical situation going on that could actually require you to need more sleep or in some cases, believe it or not, less sleep.

But sleep turns out to be pretty critical for three different areas: physical, emotional and cognitive. So when we think about sleep we know that the physical has to do with what we're going to talk a lot about today, which is our appearance, but also reaction time. It turns out that when you're sleep deprived, your reaction time slows down by three-fold. This can be really important for people who are driving a car, like car pool or you who maybe drive vehicles or things like that for their work during the day.

The emotional section is what my daughter calls being a grumpy fish, right. So if you don't get a good night's rest, we all know what happens. We become more reactive and reactive particularly in negative emotions, not necessarily positive ones. Positive emotions seem to come down, whereas with negative emotions, what we see is they seem to go up. So we react more for anger. We react more for sadness. All these things exacerbate when we're sleep deprived.

The third is cognition, which is also pretty interesting. We think more slowly, the more sleep deprived we are. And we all can figure that one out when we're trying to solve a problem. There's an old adage of sleeping on an idea. And in our house whenever we make a big

decision, we always say, "We're going to sleep on it."

And it turns out it's a really practical reason why. During sleep, you go into a stage of sleep called REM sleep. And we know that that is actually the stage of sleep whereby you organize your thoughts. You move information from your short term memory to your long term memory during REM sleep. And that's a big deal. So when you're trying to solve a problem and your brain is trying to reach out and grab that piece of information, if you haven't slept well, it really probably isn't there. And that could be a big problem.

Dr. Cates: Awesome. And those are all important for day-to-day life. We really need sleep to not only just function, but also be optimally healthy and vibrant.

Dr. Breus: Absolutely.

Dr. Cates: And that's certainly true for our skin and for...Tell us about your book. You have a book called Beauty Sleep. What is beauty sleep?

Dr. Breus: So lots of people ask me this question. So first of all, beauty sleep is not a myth. There really is a thing called beauty sleep. It turns out that beauty sleep is stages 3 and 4 sleep or what we call deep or delta sleep.

So in going to sleep, you go through a very particular dance, if you will. You go from wake to stage 1, stage 2. Then you go into stage 3 and 4, back to 2, and then into REM. And that's considered a sleep cycle. It takes about 90 minutes. And you're going to have about 5 of those across the night. But that stage 3 and 4 is really where the beauty sleep lies and here's why.

During stages 3 and 4 is the largest release of something called growth hormone. So for those folks out there that don't know what growth hormone is, growth hormone does a lot of different things for our body. But one of the things that it does is it helps repair tissue so from all the insult or injuries that might have occurred during the day, we want those things repaired.

And we now know that growth hormone does a lot of that. And most of that repair occurs during our sleep. So it's like going into the body shop at night and all of a sudden you come out and you've got a car that doesn't have any dings on it, that doesn't have any scratches on it, that looks significantly better.

We also know that during sleep, we're fasting, right. We're not actually eating during sleep unless, of course, you have a sleep eating disorder, which is a whole another topic. And we can talk about that some other time. But you're usually not eating during sleep. And that fasting period, your body is starting to wonder, "Where are the nutrients? What's coming in? What's going on here?" That turns out to be a pretty big deal and growth hormone, actually we think is a protective mechanism for our tissue during that period of time.

The other thing that's pretty interesting from a beauty sleep perceptive is when you sleep, you perspire. As a matter of fact, you lose a tremendous amount of heat through your head. And there's a good bit of moisture that goes back into your skin while you're sleeping.

Well, we know that moisture is one of the things that helps with glowing and radiant skin on a regular basis. And so when you sleep and you wake up in the morning, that actually turns out to be the time that's one of the best for your skin because you've literally been moisturizing your skin naturally all evening long.

We also know that there are a lot of different...When people use night creams or things like that, we also know that those can be very, very effective in the evenings, especially while you sleep for a couple of different reasons. Number one is you don't have the ultraviolet lights that are coming in during the daytime when you're walking around because guess what? You're sleeping in the dark, hopefully.

Number two, we also know that you're lying in a recumbent position and your blood flow changes. So gravity is no longer having a major effect, not only in your skin from a drooping standpoint, but also from a blood flow. It's much easier for blood to flow [inaudible] position than if you're standing upright.

So that part of that radiance that we like to talk about, and part of that feeling of better [inaudible] from increased circulation and better blood flow. And we get better blood flow when we're sleeping merely from being in the horizontal position and being out of the sun.

Dr. Cates: Wow! You know those are all really great things to think about with helping restore our skin while we sleep. And it's such an easy thing to do. We just sleep. But it's not that easy for everybody, right?

Dr. Breus: It's really not. It's pretty fascinating. When we look at sleep in general, approximately 10 percent of the population has chronic insomnia and 30 percent, 30 percent at any given time is not sleeping particularly well. We now also think that for men, about 24 percent of men and about 17 percent of women actually have a situation that's very detrimental called sleep apnea.

And what we're learning about sleep apnea...By the way, that's a situation where you stop breathing in your sleep.

Generally speaking, we like our patients to breathe, right. That's a good thing. When you stop breathing in your sleep, it can have all kinds of different effects. One of those effects has to do with hydration. The other has to do with keeping you out of the deeper stages of sleep like we're talking about. If you've got sleep apnea and it's not being treated, you may never get to beauty sleep. And that's where it starts to affect you pretty dramatically.

Dr. Cates: So how do people know if they're getting that kind of high-quality beauty sleep? How do they know if they're getting that?

Dr. Breus: Well, first of all, the first thing you do is when you wake up in the morning, how do you feel, right? If you have to hit the snooze button more than one time, there's a pretty high likelihood that you're not getting all the sleep that you need. Number two, are you requiring an alarm clock to help keep you awake. In a lot of instances, if you need an alarm, you are probably not getting some of the sleep that you really need. If you wake up naturally on your own within a couple of minutes before your alarm, that means your circadian rhythm has got you right where you're supposed to be and you're naturally waking up from sleep as opposed to some jarring alarm that is music or some crazy sound that jerks you out of sleep.

The other way you can know if you're getting enough sleep or if you're getting your deepest sleep is how quickly do you fall asleep. When I was with Oprah Winfrey and we were talking about Stedman, it was pretty funny because she said, "He falls asleep. And the minute his head hits the pillow, he's out like a light." Well, that's actually not a good thing.

Sleep is actually a process that has to occur. Sleep is not an on/off switch. It's more like slowly pulling your foot off the gas and slowing putting your foot onto the brake. There's about a 15 to 20 minute process that actually has to occur. And if you're slamming your body into sleep very, very quickly, that means you're probably sleep deprived. So one of the things I tell my patients is if you fall asleep in under 5 minutes that means you're probably not getting enough deep sleep.

Dr. Cates: Mmm. That's interesting. I haven't heard some of those things. That's great tips, great information. So you know what, you mentioned sleep apnea is a problem for some people? What are some of the other reasons why people can't sleep? Why they don't get into that deep beauty sleep?

Dr. Breus: One of the things that we're now learning...I was actually doing an executive sleep getaway, if you will, with some Fortune 100 executives. And one of the things they started asking me about is how do I know when I'm getting good quality sleep and can I hack my sleep or can I get 8 hours inside of 6 hours? People are always looking for the edge.

And what I tell people all the time is anxiety turns out to be one of the biggest factors in not letting people get into good deep sleep. There's even data to now show that if you're doing something that makes you anxious before bed, it can actually prevent you from getting into some of these deeper stages of sleep.

So one of the techniques that I teach people—and I talk about it in my books—is called the power down hour. So let's say that you're going to bed normally at 10 o'clock. At 9 o'clock, I ask you to set your alarm clock for 9 o'clock p.m. to make you walk into your bedroom to turn it off. That reminds you, "Oh, this is that place I'm supposed to be getting to in about an hour."

Then I give you 20 minutes to do whatever it is that you just got to do, whether it's getting backpacks ready for school, laying out your clothes. Whatever it happens to be that you know you just got to get done. In our house, it's finding shoes, all kinds of crazy stuff.

Then you use 20 minutes for hygiene, whether that's taking a warm bath, whether that's brushing your teeth, washing your face, getting ready for bed, whatever you need to do. For women, maybe it's taking off their makeup. By the way, you should try taking off your makeup in a dimly lit bathroom, not in a bright bathroom because a brightly lit bathroom actually tells your brain, "It's morning." And your brain doesn't produce melatonin nearly as well so turning those lights down in the bathroom can be very helpful during the power down hour.

And then, 20 minutes for some type of meditation or relaxation. So that could be everything from yoga stretching poses to prayer to just an overall relaxation or mediation, even guided imagery can be very, very helpful during this power down hour.

What this does is it sets the body up for a better night's rest because remember you don't just want to turn that switch off. You want to slowly guide yourself in there. And this really helps relieve anxiety.

I'm going to give everybody out there another tip that I have people use for people who have a hard time turning off their brain when they go to sleep because that's the number one complaint that I hear, Dr. Cates, is that I can't turn off my brain when I sleep. This is going to sound crazy. But I swear to you it works.

Count backwards from 300 by 3s, go ahead and try that for a second, right. So it's 300, 297, 294, 291. It's mathematically so complicated, you can't think of anything else. And it's so doggone boring. You're out like a light. It works like a charm. I've used that even myself, on occasions, when I haven't been able to get a great night sleep.

Dr. Cates: Wow! Okay. Great. That's a great tip. So that's when you're having difficulty falling asleep, right?

Dr. Breus: Right.

Dr. Cates: Any other tips to help you fall asleep?

Dr. Breus: Well, another one that's great for people—and actually quite good for the skin—is taking a hot bath right before bed. So we know that that allows for that moisture to come back in the skin because we know that we all become dehydrated throughout the day. I happen to be living in Scottsdale, Arizona. And it's pretty warm here during the summer times. And a lot of people get dehydrated very, very quickly.

So taking a hot shower or a hot bath before bed, not only does it rehydrate your skin, but there's now data to show that by increasing your core body temperature, that subsequent fall back to normal temperature is actually a signal to the brain to release melatonin. So hot baths before bed.

And you want to get the water a good 98 to 100 degrees can really be very, very sleep inducing. That's one of the things I have a lot of my patients do who really have a hard time relaxing. And, of course, there's nothing better than a hot bath to relax you right before bed anyway.

Dr. Cates: Right. And so with that drop in temperature, does that mean that you should be sleeping in a cool bedroom?

Dr. Breus: It does. Very good. So one of the things we know is that the bedroom environment is critical. When I talk with people about sleep, I believe that sleep is a performance activity, right. So if you were to go for a run in flip- flops with some cut-offs and a torn T-shirt and a big radio on your shoulder, your time wouldn't be too good. You'd get from point A to point B. But you probably wouldn't have a good performance.

But if you had your running shoes and your dri-fit wear and your music going, you're going to perform better. The same holds true with sleep. And the sleep environment turns out to be critical to all of this. So when I think about sleep environment, I think of 4 of the 5 senses to really help me guide me through this. And as a matter of fact, in my Good Night App, I actually teach people how to do a bedroom makeover. But we'll do something quickly here to teach everybody now.

So the first thing you think of is light. It turns out that light is one of the biggest factors in prohibiting people from being able to sleep. Believe it or not, they even make lightbulbs now that pull out the blue light out of light because that turns out to be what prevents people from producing melatonin at night. So if you've got your IPad or you're playing Candy Crush in the middle of the night or something like that, that's definitely having an effect on your ability to sleep because that light is hitting your face and telling your hypothalamus and particularly your pineal gland, "Hey, there's no reason to go to sleep because it's sunlight outside," so really be careful about the light that's in your room.

The next is sound—thinking about all the different sounds that could come about, believe it or not, the quieter your room is, the more acute your hearing gets so having a little bit of background noise is never going to be bad. I've often talked to people about something called "Pink noise."

You can download all kinds of different Apps about pink noise all the time. And what's nice about pink noise is it's not the super high range and it's not the super low range. It's all the noise that happens in the middle. This is great. It almost sounds like an ocean sound. Believe it or not, ocean sounds have been clinically proven to help people fall asleep at night.

So we've got our light lowered down in the evening. And hopefully, when you're sleeping, its hopefully pitch black. We've got our sound to be muffled, or again with that more pink noise or ocean sounds.

Now, we're going to go to touch. So what does touch mean? Pillow, mattress, and sheets. I think of that as a sleep system, not just separate components to sleep. And there's no question in my mind, if you don't have a good mattress and you don't have a good pillow or good sheets, you are not going to perform well at the process of sleep. So what does that mean?

Well, what that means is you probably should be trading out your mattress at least once every 7 years. Most people think 10 or even longer. And let me tell you something. I've seen mattresses that look like a taco with people lying in the center of them. And that's just not good for your back.

A pillow turns out to be needing to be replaced every 12 to 18 months. The structural integrity of the pillow, itself…You've got to remember, your head weighs approximately 8 pounds. And it's on this thing all

night long. And so if you don't have a really structurally, a good integrity pillow, your neck falls to the side. And that can cause neck strain across the side of your neck. And that can cause pain, which will keep you out of the deeper stages of sleep, so replacing your pillow turns out to be one of the easiest ways to improve your overall sleep.

When you look at sheets, I like to go with more cotton-based sheets. But there are now technology in sheets that are moisture wicking. So as an example, if you're going through menopause and you get hot flashes in the middle of the night and profuse sweating, there's now materials that can actually pull that moisture off of your skin so it doesn't wake you up in the middle of the night.

Another part of touch that you touched on before is temperature. The ideal temperature turns out to be somewhere between 68 and 72 degrees for being able to fall asleep. But there's a problem there. I live in Arizona, okay. If you're in my house in August, if I could cool my house to 72 degrees, I would not be able to pay my air conditioning bill because it would be so high.

So what you're really looking for is probably 20 to 25 degrees off of the daily high during the summer and then maybe 20 or 30 degrees up from the daily low in the winter is probably where you want to go. You never want your home to be colder than about 65 degrees if you can help it because there's now data to show that that will also pull you out of the deeper stages of sleep and affect your beauty sleep.

Dr. Cates: Wow! I didn't realize there was that specific amount or that kind of temperature that was so important. I just heard that it was the cooler, the better. So it's great to hear this information. Great.

And so falling asleep, a lot of people are reading tablets. They're looking at tablets and Kindle. And that also has light, right?

Dr. Breus: It does.

Dr. Cates: So you touched on that. I just want to bring that to people's attention because I know so many people that read before bed. So should we go back to old-fashioned little books and paper books?

Dr. Breus: Yeah. Here's what I tell people all the time. First of all, I'm a big fan of the printed page anyway. And so I like to hold the book. And I use a book light because then it's not direct light at my eyes. It's pointing directly at the page for me. And so it doesn't affect me nearly as much. But there is some really nice factor to having your tablet and being able to read.

Believe it or not, you can now purchase a shield that can go across that will actually filter out that blue light. I think they're called sleep shields. And you can buy them on Amazon or wherever. And they're pretty interesting because there's a filter for that blue light. But reading doesn't bother me and, believe it or not, neither does television. So I'm the only sleep doctor in the Universe who's going to tell people it's okay to fall asleep watching TV. And here's why.

I've found that there's a select group of my patients that can't turn off their brain and by watching some monotonous television show that they've probably watched 100 times, it actually helps them occupy their mind enough to fall asleep. So as an example, what they really do is listen to TV to fall asleep. They actually don't really watch it. They close their eyes. And the TV is on and 99 percent of the televisions these days have timers built in to the software so just set the timer for 45 minutes. And then you can fall asleep watching TV. And it won't affect your sleep.

But you should not be playing Candy Crush until the wee hours of the morning. And here's why. It's just too engaging, right. You're in there. And you're trying to get your high score or things like that. You probably don't want to answer emails while you're trying to fall asleep or other thing like that because, again, too much mental engagement really does not allow for people to start that process of walking down the road to sleep.

Dr. Cates: Okay. Great, great tips. What about the people that wake up during the night? And some people can't fall back to sleep. But that is going to disturb that level of sleep rhythm, right?

Dr. Breus: No question about it. And believe it or not, the most popular form of insomnia is sleep-maintenance insomnia or that fall asleep, wake up, fall asleep, wake up type of sleep. And so one of the things I talk about to people is what are some strategies that you can use in the middle of the night to sleep better?

First of all, if you don't have to go to the bathroom, don't! Many people wake up at 2 o'clock or 3 o'clock. And it's really interesting, people always seem to wake up at a very precise time. They say, "I wake up at 2:24 every night." Number one, the first thing you can do is look at the clock because here's what happens. You instantly do the mental math. And you say, "It's 2:30. I've got to be up at 6:30. I've only got 4 hours left of sleep. Okay, sleep, sleep, sleep, sleep." And you really try hard to fall asleep. Trying to fall asleep never seems to work. You just need to allow that process to occur.

So number one, turn your clock around and that will be one of the easiest things you can do to help

you fall asleep. Number two, if you don't have to go to the bathroom, don't go, don't just go because you're up because what you do is by going from a horizontal position to a vertical position, guess what?

You've now actually told your body it's time to get up and do things. And all of the metabolic processes and all of the neurologic processes seem to occur and wake you up. So unless you really have to go to the bathroom, it's probably best to stay put.

The third thing I tell people to do is to do my counting backwards from 300 technique. It really works very, very well, occupies your mind, and allows you to fall back to sleep.

Dr. Cates: What about people that...Those are great tips. What about people that they're mind is still racing. They're like, "I've got to remember this one thing that I've got to do. And if I don't write this down or if I don't do this right now, then I'm going to forget it." Do you recommend people writing things down or is that a bad idea?

Dr. Breus: Well, here's the thing is for some people they have to turn on a light to write it down. And so if you...And I know a lot of people do this and it's probably not the best idea. But people do it anyway. If you have your phone charging on your bedside table, hit the voice recorder and just record whatever the thought is for your voice. And then put it to the side and go back to sleep.

But a better method is just before you go to bed, write yourself a list of anything and everything that you need to do the next day or things that you accomplished that day, almost like a little journal, and be able to get it all out of your head and on to paper. What you'll find is is you'll have less of a likelihood in the middle of the night to have to get up and write something down.

Dr. Cates: Yeah. Okay. Great. That's great information. So you talked about at different times in our life, we need different amounts of sleep.

Dr. Breus: Correct.

Dr. Cates: And I know my 16 year old and my 13 year old kids, they seem to sleep forever.

Dr. Breus: Yes, they do!

Dr. Cates: And they need that extra sleep, right?

Dr. Breus: Right. Absolutely.

Dr. Cates: But as we get older, how do we know...I know that you talked about some of the science. But when does that change and how many hours at which decade of life? Can you give us some ideas on that?

Dr. Breus: Absolutely. So first of all, what we're now learning—and I actually talk about this in the Ebook that's going to be available to everybody—how much sleep do you really need and when in the times of your life do you need that sleep. So we know that when your immune are comprised or when you're sick or things like that, you're always going to need more sleep because, again that's the time that the body repairs.

With kids, I have a 13 year old myself, they want to stay up until 2 and sleep until 2. And not only do they need more sleep at those ages, but their sleep timing is off, right. Their circadian rhythms are very, very different. When you get [inaudible], by the time you're 18, about 7 hours actually is what we're learning now seems to be the optimal amount of sleep that you need. For some people, if they sleep more than that, they feel worse. Or if they sleep less than that, they feel worse so finding that sleep need. Again, remember, it's individual. But you can figure it out.

As people get on into their senior years into the 60s, 65, 70 range, what we find is that they still need as much sleep as they ever did. However, one of the things that's really interesting is they take naps all day long. And so what ends up happening is, not only do they fall asleep earlier because their biological clock has shifted in the opposite direction of a teenager, but they don't sleep for nearly as long.

So they go to bed at 8 and they wake up at 2. And they're ready to start their day because they already took two naps during the day. So keeping a constant sleep schedule, like we were talking about before, really keeps people in line from a circadian rhythm perspective.

And the rest ends up sorting itself out. So you don't necessarily need more or less sleep. You just need it at the right times.

Dr. Cates: Okay. So at the right times, so I've heard that you should always try and go to bed before 10 o'clock. Is that true or is that a myth?

Dr. Breus: That's a myth. So one of the things we know is that the national average in the United States, at least, for going to sleep is around 10:30. But that has more to do with core body temperature rhythm than anything else. Your core body temperature has a rhythm that actually climbs and climbs and climbs and when it hits right around 10:45-11:00 o'clock, it has a peak. And then it starts to dip. That is actually the signal to your brain to release melatonin.

So just like taking a hot bath, which we discussed before, makes you feel sleepy, this automatic core body temperature drop of about a quarter of a degree centigrade actually releases that melatonin.

It's the signal to the brain. So you can actually stay up a little bit later. And that's one of the things that most people don't do. So many of my patients go to bed too early and that really messes up their sleep at night.

Dr. Cates: Okay. Okay. Well, that's great. There are so many myths out there about sleep. And we've talked about some of them. What are some of the other myths about sleep that you commonly get asked about?

Dr. Breus: Well, the biggest one that I get asked about all the time is turkey. So people always say… It is right? They're like, "I'm always exhausted after Thanksgiving. And if I just eat a turkey sandwich before bed maybe that will help me sleep." You'd have to eat a 46-pound turkey to get enough tryptophan to actually make you fall asleep. And tryptophan doesn't work well in the presence of protein. So it probably still wouldn't work.

The reason people are tired after Thanksgiving, more times than not, is because they've had all the family over to their house and they've been preparing for weeks and weeks and the stress has finally left the building. And that's really when people to start to feel that sleep deprivation kick in and make them feel sleepy.

The other big myth is the 8-hour myth, all right. Very, very few people actually need exactly 8 hours of sleep. We're now learning that 7 is probably the new 8. But more importantly, it's really about the schedule, keeping a constant bedtime and a constant wake-up time is even bigger and more important than anything because when you wake up, you reset that circadian clock every single day. And that turns out to be the key to better health and better sleep.

Dr. Cates: Yeah. I know that the mornings that I wake up before my alarm clock, I have so much more energy during the day. I feel so much better. So you're saying that just doing that regularly, getting that pattern every day is…

Dr. Breus: Including the weekends.

Dr. Cates: Including the weekends. And that's tricky, too, for people because they like to stay up later and they like to sleep in a little bit. But you're saying that it's important to keep that schedule 7 days a week?

Dr. Breus: Well, what I'm saying is it's important to wake up every day at the same time. You don't necessarily have to go to bed at the same time every day. So if it's Friday night and my wife and I want to go out to dinner, we may stay out a little bit later than we normally would have. But I'm still getting up at roughly the same period of time because here's what happens is you stay up late Friday, sleep in Saturday, stay up late Saturday, sleep in Sunday.

And guess what your body wants to do Sunday night? Stay up late and then Monday morning, sleep in. And that's really where it gets very, very difficult for people so keeping that constant wake-up time, turns out to be the anchor for circadian rhythms and better sleep.

Dr. Cates: Okay. Great. And so I know that some people, they need help resetting their circadian rhythm. Maybe they've traveled or they've just gotten into a really bad sleep cycle. Are there any supplements? Do you recommend melatonin? You mentioned tryptophan. Do you recommend any of these things for people?

Dr. Breus: Great question. So a couple of things about melatonin that people need to understand is first of all, melatonin is a hormone. It's not a supplement. I guess it's considered a supplement. But it's not…You wouldn't go to the local health food store and buy estrogen or testosterone, right? Just the same way, you probably shouldn't buy melatonin.

Ninety-five percent of melatonin is actually sold in an over-dosage format currently in the United States. Melatonin should be somewhere between a half and one milligram should be the appropriate dose to get plasma concentration levels up to help you.

But here's the kicker about melatonin. Melatonin is a sleep regulator, not a sleep initiator. So melatonin isn't a sleeping pill. But what you've correctly identified it, melatonin is a circadian rhythm changer. So what melatonin does is it basically tells your brain, "It's night outside. And it's time to go to sleep."

Believe it or not, it takes 90 minutes for melatonin to reach those plasma concentration levels. So you don't take it right before bed. You would take it 90 minutes before you would want to go to sleep. So if you're thinking about 10:30 as your optimal bedtime, you would take your melatonin around 9 o'clock.

Here's the problem though, making sure you get the right dosage. We've already discussed that, but getting it from a reliable source turns out to be a really big deal. Because it's not FDA-regulated, I could make melatonin in my garage and I can sell it on the Internet. And nobody would be the wiser. Not that I do that, because I don't. But you got to think those things through.

Also, many people don't know that melatonin is by "prescription only" in Europe because it is such a powerful, powerful sleep aid. So oftentimes, what I'm talking

about with people is if you do have to reset your circadian rhythm, it's probably okay to take your melatonin about 90 minutes before bed. And then when you wake up, I actually have people use something called Light Therapy.

So remember how light stops the production of melatonin, so I actually have people buy—and these are commercially available—light boxes that you can actually purchase. And they're quite small. And you can sit them…They're this big.

And you can sit them on your desk or while you're having your bowl of cereal in the morning or whatever it is, you can have them off to the side. They don't have to be right in front of your face. And it resets your circadian clock. And I can tell you that I've helped more jetlagged and more insomnia just by using a little bit of melatonin and some light therapy than just about anything else.

Dr. Cates: Great. Great information. But what about the taking melatonin on a regular basis? Is this something that people should take every day or every night?

Dr. Breus: No, it's not. Yeah, not every day, every night. Well, here's the thing about it is nobody out there's sleeper is broken. Okay. Everybody actually has the ability to sleep. If you need to take a pill every single night to help you sleep, then my advice to you is we really need to sit down and talk about why you feel you need a pill every night to sleep. Don't get me wrong, there are some instances where it might make sense.

So, for example, if I have a patient who's going through chemotherapy, if I have a patient who has severe pain like low back pain or shoulder pain or things like that, those are instances where it makes sense where you might take something on a nightly basis. But general speaking, if you have to take something every night, you probably have a bigger issue going on. And you're going to want to talk somebody like me, a sleep specialist, or even your doctor a little bit more about why you're needing to take that medication on a regular basis.

Dr. Cates: And that's so true. And certainly, women and men, too, but, especially women. As we get older, our hormones change. And that plays a huge role in our sleep, right? Progesterone and…

Dr. Breus: Oh, absolutely! As a matter of fact, it's great that you bring this up. I have actually changed women's sleep cycles based on their menstrual cycles. And so even women, not even as they get older, but just through their menstrual cycles as the week right before you get your period, a lot of women are very, very tired. I have women going to bed earlier then because of the rise of progesterone.

And then I have women after their period, they actually need a later bedtime. So you may even change your bedtime over the course of your cycle. As women then go into menopause, it has a tendency to even itself out. But you've got hot flashes to deal with and you've got profusive sweating. You've got all those other issues that can be quite challenging. I'll be honest with you. Women don't have an easy ride when it comes to sleep at all. But it is absolutely manageable.

Dr. Cates: Yeah, it certainly is. Okay. So going back to tryptophan, 5-HTP tryptophan, what do you think? Do you think those are helpful?

Dr. Breus: I think they can be helpful in certain situations. And I don't really have a big problem with it. One of the things I think about with melatonin and tryptophan, as you know they're precursors to serotonin, almost everybody's already got all of that inside them. And they probably have enough of it. So again, for occasional use, it makes sense to me, but not on a daily use. I just don't see it happening.

Dr. Cates: Great. Thank you, for sharing that. And the same thing with sleep medications, right? How do you feel about sleep medications?

Dr. Breus: Well, here's the first thing. I don't want anybody out there to stop taking their sleep medication if they're watching this and decide, "Oh, Dr. Breus and Dr. Cates said I should be off my medication." You need to speak to your doctor before you stop any type of medication, number one.

But number two, there are instances where it may be appropriate. But again, generally speaking, you really shouldn't have to take a pill every single night whether it's an over the counter or a prescription sleep aid. Again, certain instances will apply. But generally speaking, I in my practice rarely use medications to help people sleep better. And I usually, within 6 to 8 sessions— week-long sessions—I can get people usually sleeping significantly better just by scheduling their bedtimes, helping calm their anxiety, and teaching them more about the process of sleep.

Dr. Cates: Wow! That's fantastic! And I think that I wish everybody could hear what you're saying because there's so many people on sleep medications that are relying upon that. And they do come with side effects, right?

Dr. Breus: Oh, there's no question about it. Some of these medications are now getting into side effects where there's things like sleep eating. So sometimes when people are taking some of these medications, they lose their inhibition. One of the biggest mistakes that people make with sleep medications is they take it before they go to bed. And they say, "I'm just waiting for it to have an effect. I'm going to go brush my teeth, wash my face, get ready for bed."

Meanwhile, they say, "You know what, I can use a bedtime snack?" Well, they're inhibitions have dropped. And so when they look in their refrigerator and they see the chocolate cake, they don't just have a slice. They eat the whole cake because they're inhibitions have dropped so dramatically. Some people have gotten into the car and driven to go get food or driven across town because they remembered something that they thought.

Sleeping medications are powerful medications. And you have to respect the medication. Sleeping medications, you should take them and turn out the light. You shouldn't go brush your teeth and wash your face. You should actually take them and be in a safe place with hopefully somebody that can watch you and turn out the light.

Dr. Cates: Yeah, good points, really good points. And you were talking about eating. Any tips on what to eat or not to eat before bedtime?

Dr. Breus: Well, one of the things we haven't talked about yet is both alcohol and caffeine. So I don't have a problem if you want to have a glass of wine with dinner, even two. But you want to leave one hour per alcoholic beverage before lights out. So if you stop drinking and you've had two glasses of wine by 8 o'clock, I wouldn't want you even considering getting into bed before 10 o'clock.

Alcohol, while it makes you feel sleepy, keeps you out of the deeper stages of sleep, keeps you out of beauty sleep, and is a diuretic. So it dehydrates you. So it's going to make your skin actually look worst in the mornings rather than better because you've become so dehydrated from the alcohol.

Caffeine has a half-life of between 8 and 10 hours. So we really want people to stop drinking caffeine around 2 o'clock in the afternoon because then enough of it is out of their system so they're able to fall asleep by 10-10:30.

Dr. Cates: Yeah, good points. I know that if I have caffeine after lunch time, I have a hard time sleeping. But I think that everybody's a little bit different on how caffeine affects them, same thing with alcohol. But certainly, it seems like that's the majority of people, right?

Dr. Breus: Yeah. No. Absolutely. We've now learned that there's different caffeine sensitivities. And we also now have learned that depending upon what time you drink alcohol, it will have differing affects. So Happy Hour, it turns out really is "Happy Hour."

When you drink alcohol between those hours, it gives you more of an uplifting or energetic effect, whereas if you drink later into the evening, it gives you more of a sedative effect. So we really aren't looking at how does our body clock time us and when we put something inside us, how is it going to affect our sleep?

Dr. Cates: Okay. Great. And then, as far as food goes, some people say eating less or more protein at bedtime, does that make an impact?

Dr. Breus: It does. So there's now data to show that carbohydrates actually help people with sleep. Part of the reason is is when we ingest carbohydrates, it actually eventually helps increase our levels of serotonin, which is the calming hormone.

If you're looking for a bedtime snack, what I oftentimes tell people, and this is actually in my book, is we talk about having about 20 percent protein, about 80 percent carbohydrate for about a 250-calorie snack. You don't want to go much over 250 calories because you're just going to be adding more calories that your body's going to have to burn later on. And the carbohydrate/protein mix, actually it turns out to work out really well.

Dr. Cates: Well, give you an example of that kind of...

Dr. Breus: An example of something like that might be cheese and crackers, might be a bowl of oatmeal made with milk instead of water, might even be—I know you're going to cringe when I say this—a small piece of cheesecake would actually probably fall into that category, as well. So there's lots of different things that you can have.

And it's okay to treat yourself a little bit and have one of these snacks. But you don't want to go into the super-high fat, super-high sugar. I know depending upon the cheesecake that you get, that could actually fall into that category. But those types of things would actually work out very, very well.

Dr. Cates: I usually tell my kids—and so you can tell me if I'm wrong on this— have some fruit and nuts. Would that be a good combination?

Dr. Breus: I would probably change that combination a little bit. I would rather actually, believe it or not,

see them eat a small bowl of non-sugar cereal would actually be a really good thing because you've got the carbohydrates and you've got the protein from the milk. And that actually turns out to be a really good mix to help people fall asleep.

Nuts and protein is a lot harder to digest. And so that could actually maybe, could in some cases, be a little bit more stimulating. And also, depending upon the fruit, they could have a very high-sugar content. And that could also have something to do with it.

Dr. Cates: Okay. Good to know. Good to know. I'll have to mix it up a little bit. [Both laugh]
Great. Well, this is really great information. And I imagine that you got into this sleep specialty. Is there a particular reason? Did you have issues with sleep or was this just something?...

Dr. Breus: Great question. I've always been a fairly decent sleeper. I always have my bad nights. Everybody has a bad night of sleep every once in a while. I really got into this...It was interesting. I did a rotation during my residency at the sleep lab. And by day number 3, I absolutely fell in love with clinical sleep medicine because I can change people's lives, literally, in 24 hours.

And as you know, in medicine, sometimes treatments take quite a while to take an effect. And when you can identify somebody, let's say with sleep apnea or help somebody who's got insomnia really, really quickly, it's so amazingly rewarding that I just said, "This is my thing."

Dr. Cates: Yeah. Perfect. All right. Well, one last question for you. And that is you were talking about skin, it's a Glowing Skin Summit, what do you do personally for your skin? It sounds like you get a good night sleep, I imagine.

Dr. Breus: I do. So there's a couple of things that I do to actually help with my skin. Number one is I hydrate. I'm a big fan of hydration. Right when I wake up in the mornings, I have a very large glass of ice water, not ice water, usually just regular water, sometimes a glass and a half, even before I consider having coffee or food. That actually helps jumpstart the metabolism. But it also rehydrates me almost immediately.

The other thing that I do is I do make a point of washing my face at night before bed, not with any harsh astringents, but just a little water, a little Dove soap. And it seems to work out well for me. I'm 47 years old. And people tell me that I don't necessarily look like I'm 47 years old. So I take that as a compliment and hopefully having good skin and, of course, decent genetics.

Dr. Cates: Right. And you're getting that beauty sleep it sounds like, that deep sleep that we all need.

Dr. Breus: I'm sure trying. That's for sure.

Dr. Cates: Okay. All right, well, thank you so much for your interview today, Dr. Breus!

Dr. Breus: Oh, thank you, Dr. Cates! And thanks to all the viewers out there. We're very excited to be here!

Dr. Cates: Great! Thanks everyone for joining us today on The Glowing Skin Summit. Dr. Breus has shared a lot of great information today on how to improve your sleep so you can get that beauty sleep, that to help improve your skin. It sounds like for some people, it's a really simple thing to sleep. But other people really need help.
So Dr. Breus has shared a lot of information today on how to get that deep sleep that we all really need.

So if you want to own this talk or you missed any of our other amazing presentations, just click the banner by or below this video for information on how to access the entire Glowing Skin Summit.

Thank you! And have a great day!

Finally Get a Perfect Night's Sleep!

Wendy Myers, FDN-P, NC, CHHC with Jess Armine, DC

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The purpose of this presentation is to convey information.
It is not intended to diagnose, treat, or cure your condition or to be a substitute for advice from your physician or other healthcare professional.

Wendy: Hello. Thank you so much for joining us again on the Medicinal Supplement Summit. My name is Wendy Myers. Anyone that's determined to be healthy takes supplements. That's why I brought together all the health experts for the Medicinal Supplement Summit, because I want to help you experience vibrant health.

Today we're going to be talking about the best supplements for sleep because I know so many of you suffer from insomnia, or you have trouble going to sleep, or you have night waking; you wake up multiple times during the night, and you can't get back to sleep. I suffered with this for years. And only by taking the right supplements did I finally sleep through the night and can continue to do so today with some normal night waking. But it's very, very important. There are so many supplements that you can take to aid sleep.

So today my friend and our guest is Dr. Jess Armine. He is going to be addressing the best supplements for sleep. But before we do, a little bit about Jess. Dr. Armine's passion is to discover and eradicate the root cause and subsequent effects of chronic illnesses in adults and children, as well as to educate and empower patients and practitioners alike.

Dr. Armine is one of the few specialists in the United States specializing in correlating the genetic SNPs or Single Nucleotide Polymorphisms with neuroendo immunology, acquired mitochondrial dysfunction, and cell wall integrity to identify hidden imbalances. And he develops individualized treatment plans specific to the history and physiology of the individual patient. Dr. Armine constantly researches about the latest findings in genetics and functional medicine. And you can learn all about him at his website, methylationsupport.com. Dr. Jess, thank you so much for joining our summit.

Dr. Armine: Thank you so much for inviting me, Wendy. I really appreciate it. And I'm looking forward to this.

Wendy: Yeah, so why don't we first start with describing the sleep-wake cycle and what is required for normal, natural sleep.

Dr. Armine: Well, that's a great question. Without getting really overly technical, the reason we're awake and the reason that we sleep is very deeply embedded in the brain, in various centers in the brain, like the suprachiasmic nucleus and stuff like that. But essentially it's run by light. When it's light out, the stimulation of the brain leans towards wakefulness, or what's called full brain arousal.

But when the sun goes down and darkness comes in very slowly, the pineal gland will start releasing melatonin. And the stimulus from the light goes away. So the melatonin starts putting you to sleep. And once you are asleep and you get into that very deep sleep, about an hour and a half or so, then two neurotransmitters, serotonin and GABA, which is Gamma-Aminobutyric Acid, which is the substance that I'll just keep calling GABA from now on, calms the brain.

And that's what keeps you asleep for the rest of the night. And basically you go through cycles. And first it's very deep. And then as the night goes on, they become more shallow. And you get REM sleep. And then eventually you wake up as the sun starts coming up. And the stimulation, actually through glutamine, starts stimulating the brain to help you arouse. But that's the basic thing to take away from there, is melatonin, GABA, and serotonin.

Wendy: Okay, so a lot of people are doing things that interfere in their sleep, in their sleep-wake cycle. Can you talk about some of the top mistakes people are making that are preventing them from getting a good night's sleep?

Dr. Armine: Absolutely. You have to remember that in the 21st century and the late 20th century, we started with a 24/7 society. When I was a kid—and it was a long time

ago—there were only one or two things open on a Sunday. And that would be church and the bakery. And the TV would turn itself off. The programming would stop at 11 or 12 o'clock at night.

Right now we have video games, large screen TVs, computer screens. And this kind of light, you see people consistently having a significant amount of light going right into their eyes. And the brain doesn't know whether it's light or day anymore. So we never get the chance to start calming ourselves down.

When I'm looking at different testing a lot of times, where the cortisol, which comes from the adrenal gland, is supposed to be very high in the morning and then works its way down and then at night time it should be its lowest, I often see the reverse, where the cortisol, at the end of the day, goes way up.

And when you train your brain to do that, it's going to keep you awake at night until it just can't keep you awake any longer. And then you're going to crash. That's only one reason. And the use of various medications, it's a product of what I like to call an excitotoxic society, where everything is excited. So we have too many things going on at once. And that affects our natural circadian rhythms.

Wendy: Yeah, and where do parasites come into play? I know when people have parasites they release cortisol at night. And that can wake them up.

Dr. Armine: That's absolutely true. Parasites are one of the most underdiagnosed conditions. And generally speaking, especially when they've been around for a long time, they tend to get into the bloodstream. They tend to get into the neurological system. And they tend to seriously upregulate or irritate the neurological system. And they'll release things like cortisol and glutamate. And especially, believe it or not, towards the full moon they tend to get higher activity. And you will be in this constant excitatory state. And it will exacerbate or become worse around the full moon, which is one of the diagnostic clues that it's parasites.

Remember, there's a balance between the inhibitory neurotransmitters, which are those things that calm you down, like serotonin, GABA, glycine, and so forth, and the excitatory neurotransmitters, like glutamate, dopamine, adrenalin, noradrenaline. And they balance each other.

So after a while, when you have so much excitation, those inhibitory neurotransmitters, you don't have enough of them. And you're going to be in a constant excitatory state. And what's feeding that can be parasites. It can be a lot of other things too, like yeast, but parasites are a biggie.

Wendy: Yeah, and mineral deficiency is a huge one, as well. Can you talk a little bit about that?

Dr. Armine: You bet. Okay, remember that to run our biochemical processes, if you would look at any of the available pathway charts, you would see that we run by enzymes. And those enzymes that run our biochemical processes need cofactors and coenzymes. The cofactors, I think, are trace minerals. We need a broad spectrum of them to run our biochemical processes.

Seemingly the most important ones for sleep and relaxation are calcium, magnesium, especially magnesium. For some reason magnesium tends to be one of the things that we lose the most of. And I believe it's because we have an over amount of calcium. And we don't have the proper balance of calcium and magnesium, which is a two to one balance.

The other trace minerals are important, also. And again, the reason for it is they help run the biochemical processes. We lose trace minerals because we have so much excitation that stimulates our adrenal glands that start pumping out mineralocorticoids, big words for things that help you suck out minerals. And we start depleting. And as we deplete, between not getting proper nutrition and proper supplementation and overuse, we end up in a negative balance and hence insomnia.

Wendy: Yeah, and minerals, they're very relaxing. When you have a deficiency of magnesium due to any kind of stress, people are not going to be able to relax enough to go to sleep. So let's talk about some brands and forms of calcium and magnesium that you like.

Dr. Armine: When I recommend a calcium and magnesium supplement, I usually like to make sure that the calcium magnesium is in that two to one ratio. I know that the Endo-met Paramin that you have is exactly that ratio and it's in a form that's readily available.

Some of the better forms of calcium are magnesium glycinate and magnesium threonate. I like the glycinate forms because they're basically an amino acid chelate. What does that mean? When you look at different substances, like magnesium aspartate, magnesium citrate, or calcium carbonate, let's say, that's a very common form of calcium, the carbonate is the carrier ion. So when it hits hydrochloric acid in your stomach, it breaks apart.

And what it's supposed to do is release free calcium to be absorbed by the gut. But in the case of

calcium carbonate, which is Rolaids, Tums, stuff like that, you think you're getting a lot of calcium, but you're not, because when you put it in hydrochloric acid, it becomes the bicarbonate ion and calcium chloride, which is limestone. Essentially you're creating a rock.

And it doesn't get absorbed. So you can take as much of that as you like. You're not only neutralizing the acid, you're preventing absorption. And the ion that's created is not available for the body for absorption. But when you have an amino acid chelate, like magnesium glycinate or any of the more available forms, when it hits the hydrochloric acid, it separates.

And that calcium magnesium, or whatever ion that you want to be absorbed, is available by the body. So it's really important, the form that you take, and to make sure that you have a really absorbable form. And I like the form that you have, quite frankly.

Wendy: And so let's look at some of the other supplements that can be utilized to achieve normal sleep. I know I use several supplements to help me get a better quality of sleep. I like to use the calcium magnesium. I use some GABA support every night. Sometimes when I have trouble going to sleep I'll take some melatonin. Let's talk about some of the top supplements that you recommend to clients that are having trouble sleeping.

Dr. Armine: Well, one of the little hints that you can use with yourself is if you have trouble getting to sleep or trouble staying asleep... some people have trouble with both. But let's say it's one or the other. If you have trouble getting to sleep, then what you mostly need is melatonin. And there are various melatonin supplements. I happen to like the more bioavailable liquid ones. And I like the lower dosage. They have them all the way up to 20 milligrams, which I think is kind of ludicrous. One milligram to three milligrams is what I usually recommend. And I know that Pure Encapsulations has a good liquid that's very absorbable. I know that Douglas Labs also has a good form. And it's one milligram. You should start with one milligram and use the minimal amount you need to go to sleep.

The other hint is that if you don't have enough melatonin, you most probably don't have enough serotonin because what creates melatonin is serotonin. It's a metabolite of serotonin. Melatonin is a metabolite of serotonin. So a lot of times if you don't have enough melatonin, you're looking at a suboptimal serotonin level.

Wendy: Yeah, and one big note about melatonin, I have a lot of people say, "Oh, melatonin doesn't really work for me." But it can be easily overridden if you're watching television or staring at your phone. It's meant to be overridden easily in stressful situations, say, back in cave man times. Like I said, it's meant to be overridden. So when you take it, you have to make sure you're in bed with your eyes closed.

Dr. Armine: Absolutely.

Wendy: Or it's not going to work.

Dr. Armine: The whole thing about sleep hygiene is using the bed for sleeping, being in a comfortable, quiet environment, not having a lot of electromagnetic fields around you. So you shouldn't be watching TV in bed. The router shouldn't be there. Some people are very, very sensitive, so they shouldn't even be charging their cell phones next to them. It should be 15 feet away.

But if you engage in reasonable sleep hygiene, you'll be ready to go to sleep. And it doesn't happen immediately. You can't be playing computer games and then five minutes later say, "Okay, I turned it off. I went into a dark room." It takes a couple of hours for this to happen.

So really, if you're going to go to bed at 11 o'clock, you should be starting to pare down your stimulation, especially the light going into your eyes, around 9, at least starting there. And you'll find that you'll be ready for bed. And you may not even need the supplementation. But if you do, it'll be a minimal amount. If anybody forgets that, the only population that does not have insomnia is the Amish because they don't have a lot of these stimulants. And they sleep and wake with the sun.

Some of the other things that can be utilized are, like you said, the GABA supplements. This is really important. The types of GABA that are out there, you have to be kind of careful which ones you get because regular GABA doesn't cross the blood-brain barrier. And lots of times it doesn't work. So the form of GABA that works very well, there are actually two forms. One is called a phenylated GABA, sometimes called Phenibut.

And there are two different forms of that. And I'll say the words fast, but don't anybody try and remember them. There's a beta-phenyl-gamma-aminobutyric and a 4-Amino-3-phenylbutyric. The first one is available on the internet. And it's got kind of a bad rap because it has some addiction qualities. But the second one, which is the 4-Amino-3-phenylbutyric acid, is available in the PheniTropic product by Biotics Research and the Kavinese product from the NeuroScience Corporation.

Frankly, the PheniTropic is probably better because it's a single substance in there rather

than combined substances. And it gets into your brain 15, 20 minutes and lasts for a good six hours. I've had people sitting in front of me shaking for different reasons, from upregulation. I would give them three or four of these capsules, and in 15, 20 minutes they were sitting there normally. So GABA's a good bet. And it's safe. Also, PheniTropic is a whole lot more cost effective than some of the other products out there.

Wendy: Yeah, I absolutely love the Biotics Research PheniTropic. I recommend it to all of my clients. I take it personally. It's really changed my life. I think so many people, they're overstimulated. And they need GABA to turn off all the stimulation. It's like the brakes.

Dr. Armine: That's exactly true.

Wendy: You need that to shut down. Everyone is too overstimulated today. And that's why there's such a rash of insomnia.

Dr. Armine: Absolutely. The other form is a liposomal form. And that's available at Quicksilver Scientific. I don't have that much experience with that because it's rather new. I am fond of liposomal products because they do get in regardless of the digestion. But I know the Phenitropic works very well. I've been using it for decades. And it's changed a lot of people's lives because frankly, if you don't sleep, you're going to have psychiatric illnesses. That is kind of a given.

And if you have to use benzodiazepines or any of the medications like the sedative hypnotics, they're made for very short-term use, maybe two weeks. And people use them for years upon years. And very, very serious problems have happened. Serotonin can be achieved by taking 5-hydroxytryptophan. And I'd like your listeners to know that 5-hydroxytryptophan, if you're going to use it, that's what you should use, not tryptophan itself.

There are two reasons for that. Number one, tryptophan converts to 5- hydroxytryptophan, but only about 10 percent of it does. And that's very dependent on your ability to digest. And, two, if the problem that is causing you to have insomnia is an inflammatory problem, it's going to pull that tryptophan down a different pathway called a kynurenine pathway, which ends up in a substance called quinolinic acid, which is going to be excitatory.

So your better bet is to use 5-hydroxytryptophan. It's available practically everywhere. And it almost doesn't matter which one you get. They're basically all okay. And that's not even getting into the adrenal products.

Wendy: Yeah, let's talk about the adrenals. A lot of people say they have stress. It pushes them into adrenal fatigue. So let's talk a little bit about what the adrenals are, what they do, and what supplements can we use to help calm them and improve sleep.

Dr. Armine: You bet. The adrenal glands are our stress glands. When you think about fight or flight, and you think about how we handle stress, we use our adrenal glands. The adrenal glands sit on top of the kidneys. And there is, in the brain stem, the hypothalamic-pituitary-axis, where you get stimulation into the hypothalamus. And it stimulates the pituitary to release something called ACTH, which stimulates the adrenal glands to release adrenaline, noradrenaline, cortisol, and DHEA, which is dehydroepiandrosterone. The last two are the adrenal hormones. And the first two are the excitatory neurotransmitters.

Now, cortisol usually, after you've had a release of it, it usually goes up to the pituitary and hypothalamus and turns off the reaction. Unfortunately, in our excitatory society, what ends up happening is we end up with very high consistent cortisol levels because of the stimulation. And then those receptors start getting desensitized. So nothing turns off the reaction.

So we get this constant adrenal output that's constant adrenaline. It's constant cortisol. And then we can't turn off at night. Some of the adrenal supplements address that. For instance, rhodiola, in higher concentrations, will help calm the adrenal glands. But you have to take it with Phosphorylated Serine, which is also known as Seriphos, because that particular phospholipid will reset the receptors.

There's a combination product called Calm-PRT that is sold by the NeuroScience Corporation, which has very high concentration Rhodiola, which is not usually available everywhere. And it also has Phosphorylated Serine in it. It's one of the few products that I've seen really work very well when you hit this particular nail on the head. And let's say the serotonin support's not working and it's more adrenal based, this one product will help an awful lot.

Adrenal protomorphogens, which I think is like adrenal cortex, you really shouldn't use for sleep problems because they actually will stimulate the adrenal glands to produce more neurohormones, which is the last thing you need at this particular stage.

But various herbs, like ashwagandha and other adaptogenic herbs, liken the adrenal response from innate response or phosphorylated

Banyan organic ashwagandha, these things are used to help, if you will, rebuild the adrenal gland and to help fix it or support the adrenal gland because of the fact that it's been exhausted in the body. Before you have a failure, it's going to hyper react for a very long time.

And a really good product is the Innate Response, Calm Response, because it has L-Theanine, which will kind of block the action of glutamate, which is very excitatory. And it has ashwagandha, skullcap, Holy Basil, and passion flower, which are all adrenal adaptogens. And they're very gentle. And it's a good starting point if you're thinking that your problem is adrenal. And if you have anxiety, that's a really good hint that your problem's adrenal in origin.

Wendy: Well thank you so much for that. I think there are so many different products that you can take that I definitely recommended starting with the basics. We know everyone's deficient in minerals. So start with the minerals. If that doesn't work, then you can work your way down the list, the supplements that we recommended. And find out what combination of the above work for you.

So let's have a discussion about which supplements are the safest to use. Let's talk about some of the indications and contraindications of various supplementation, as well as perhaps some risk benefit factors for the more common sleep support supplements.

Dr. Armine: I'm glad you asked that question because it brings up a very salient point. I'd like your listeners to understand that there are reasons for insomnia. And some of them can be kind of serious. Insomnia's a very common symptom for a lot of different pathological conditions, anything from Lyme disease to, as you mentioned before, parasites to overgrowth of yeast in the gut, which upregulates acetaldehyde.

There are loads of reasons. And the very first thing one has to realize is that if you're taking different supplements, and things aren't working after a little while, you really have to get it checked out. Or, if you need to use supplementation all the time, there has to be a root cause that you have to look for.

You're never going to go wrong by using GABA support. So the PheniTropic, you're never going to go wrong with that. There have been very few cases where people have had a negative reaction to that. And most people need GABA. So that's a good bet.

If you're having trouble getting to sleep, melatonin with GABA is a very, very good call, a trace mineral supplement, just combining all that stuff, having either a full spectrum trace mineral, at least calcium magnesium. You can cover all the bases. So if you take melatonin, GABA, and the trace mineral supplement, you're covering most of the bases.

If you want to go one step up from there, the 5-hydroxytryptophan or serotonin. And if that's not helping, start utilizing the adrenal supplementation. Again, look for the things like ashwagandha, skullcap, Holy Basil, passion flower, kava-kava, valerian root. These are calming herbs. These are herbs that are fairly safe to use.

And you're not going to get some super negative response. I will warn people, sometimes melatonin will make you groggy the next day. And if that's so, you're either taking too much, or you're not hitting the nail on the head. If you start utilizing things that start mimicking medications, or using very, very high doses, this is where you start realizing that something else is going on.

And you should really check into it. Also, if your mind is racing, that may be elevated phenylethylamine, which means you're getting too much phenylalanine, and your phenylethylamine's way, way up. And that, in the pathway, will give you Tyrosine, which gives you L-DOPA, and then dopamine and epinephrine, norepinephrine.

You have to look at your diet and say, "Well, what am I putting into myself that's upregulating my system?" That can also be things like food allergies and so forth. So most of the more common sleep supplements are fairly safe.

But if you're having to use large, large doses, and I've seen people on 20 milligrams of melatonin because they've either read something, or they have a practitioner that is not well informed, those are the kind of things that you should be careful of because long-term high doses of melatonin are not exactly good for the heart. There's been some research out there that says you shouldn't do that.

The other thing is cortisol, which is coming from the adrenal glands. Another good bet to use would be something that will calm the cortisol down. And there are two products that I know of. One is called Calm CP. And it's from the NeuroScience Corporation. And that contains corosolic acid and phosphoserine, like I told you before. And there's Cortisol Manager by Integrative Therapeutics. That's another very good, safe product that can calm the adrenal glands and specifically bring down the cortisol. And the way you would take that is a dosage right before bed, whatever the bottle dosage is. That'll usually get the adrenals to calm down for the night.

Wendy: Well, thank you so much for that. I think dosage is absolutely important. I think people tend to not take enough minerals. So it's like, "Oh, I'm taking magnesium." But they're not taking nearly enough that they need. So you have to get the right dosage. It's usually best to work with a qualified practitioner to achieve that.

But let's say you take all these supplements. Many people out there, they've tried various things. And they're still not able to sleep. So what red flags indicate that you're kind of barking up the wrong tree and other interventions might be necessary?

Dr. Armine: When the simple stuff doesn't work, people, I believe, need to realize that, like I said before, insomnia can be a signal that you have a more serious problem or a problem that needs to be approached from a different manner.

But if the simple stuff doesn't work, if you take calcium magnesium, and you're maybe taking some melatonin, and all the reasonable things are not helping, this is a time to get with a practitioner who's learned in these areas because further investigation is necessary. And usually a simple history will tell you what's going on if you're a healthcare practitioner. But there are lots of reasons for the imbalances that occur that lead to insomnia.

On the internet you can type in "sleep hygiene" and get innumerable websites that will guide you into some of the real simple things. You can just look around your bedroom and say, "Maybe I should take the router out from the head of my bed. Maybe it doesn't belong there," and stuff like that. You'd be surprised how simple things like that will help.

But if you do reasonable things and it's not helping and there's no obvious reason for the insomnia, like situational anxiety, you're having a lot of problems at work, or there's a serious stress in the home and so forth, then you really need to get with a healthcare practitioner because it can be something more serious. And it would be a real shame to miss something in the early stages that could be corrected.

Wendy: Yeah, and lifestyle factors are so important. A lot of people don't have good sleep hygiene but still have an expectation to sleep well. But you kind of have to go to bed at the same time every night. Go to bed hopefully by ten o'clock. And a sleep mask, for me, was life changing. I get such a deeper quality of sleep just by using a sleep mask to block out any potential light going through my eyelids and stopping melatonin production.

Dr. Armine: That is wonderful. That's a great idea.

Wendy: Yeah, huge. So let's talk a little bit about medications. A lot of people, when they first have trouble sleeping, they go to their physician and usually get benzodiazepines, like Xanax, Klonopin, and things of that nature, Ambien. Let's talk a little bit about those and some of the problems that they can cause if used long term.

Dr. Armine: Absolutely, great question. First, the benzodiazepines, benzodiazepines are medications like Valium, Ativan, Klonopan, and the like. And what they can do is stimulate the GABA receptor to release GABA. They have a very high addiction potential. As my mother would say, from Brooklyn, "If you ain't got it, you ain't got it."

And eventually you need higher and higher dosages. And it becomes incredibly difficult to get off them because I've seen people have seizures after long term benzodiazepine use. And the fact is, that the sleep you're getting is not true sleep. A drug induced sleep is not true sleep. So you're not getting the benefit of what you're supposed to be getting when you're asleep.

I can get very, very technical about it, but that's the long and the short of it. Medicines like Ambien, Lunesta, regardless of what the nice TV commercials show you, which, by the way, if you're watching those commercials, people, they know that what you see and what you hear, you're going to default to what you see.

When you start listening to a drug commercial, close your eyes and listen. You will run in the opposite direction because they're telling you all the things that can happen, but they're showing you something completely different, which I always find pretty funny. But they have psychologists that actually study this stuff. Those medicines are called sedative hypnotics.

And there are loads of anecdotal and scientific studies that say you shouldn't be using them for more than two weeks. And unfortunately, people are on them long term. There have been stories of people leaving the house and driving somewhere and not even knowing how they got there. People get up and cook and do things that are seemingly normal, what we would've called sleep walking before, but it's a hypnotic state.

So guess what? It's dangerous. A lot of people have fallen and gotten hurt, especially in the elderly population, where these medicines are used very, very often. But again, sedative hypnotics are not giving you true sleep. You may be asleep, but you're not really getting true sleep.

So it doesn't change the base reasons. It doesn't change the neurotransmitter imbalance. It doesn't change the trace mineral balance. In other words, it doesn't change anything. It makes you actually worse. A couple of days, one dose, that's never a problem. It's the chronic continuous use of the medicines. And you're going to get all the negative consequences of insomnia. And you're not really sleeping.

Wendy: Yeah, we need to get to the underlying root cause, which is usually mineral depletion, excess stress, excitation that needs to be calmed, not covering up the symptom with a medication, though they do have their place.

Dr. Armine: Absolutely, all medications do.

Wendy: But definitely my opinion, that's not the first course of action.

Dr. Armine: That's exactly true. Remember that situational insomnia, if there's something going on, is to be expected. And trying the simple stuff, taking a warm bath, using some essential oils, things like lavender essential oil or chamomile or even frankincense on the bottom of your feet, which is a good anti-inflammatory, and the simple things, like taking a warm bath... and they have Epsom salts that have lavender in them.

And it's been said that if the world took Epsom salt baths, there would be no wars, because you're getting a ton of magnesium into you. And I realize that it says magnesium sulfate. And people with sulphur problems, that can be an issue. But if that is an issue, they can get magnesium chloride. You can get that on the internet, I think, from Ancient Minerals. And you can use that as a bath.

And believe it or not, transdermally you're going to get that magnesium in. And I like the calcium magnesium you take by mouth. And you can get it transdermally. You can relax in the bathtub. You can listen to good music, all the meditative things, preparing yourself for sleep.

And then when you crawl under the covers, your body has everything that it needs to go to sleep. That's really the best way to start and handle it. But if you're really up there, and you're really racing through the night, you have to look around you first and make sure you're down regulating yourself earlier in the evening.

Try and think of what the 50s were like. Dad would come home from work, and really things would just start paring down after dinner. They would do homework. It got darker. And they may watch a little TV together. And then people went to sleep. There was a whole lot less insomnia during that time. Now it's rampant. And it's got to be because of all the toxicity and all the stimulation, which is robbing us of the trace minerals, robbing us of our neurotransmitter balance, which is why these things work so well, because those are the usual reasons, the usual suspects.

Wendy: Yes. Well, Dr. Armine, thank you so much for the very informative discussion. I hope the listeners are able to take away from this a lot of information and suggestions that they can use to improve their sleep. And if you sleep through the night, you can improve your quality of sleep with the suggestions Dr. Armine made. So, Dr. Armine, can you tell us where we can learn more about you?

Dr. Armine: Sure. You can go to my website, which is methylationsupport.com. I have all my individual podcasts and lots of information about the types of treatment that I have and how you can consult with me. It's all right there. It's a really good website. We've been working on it.

Wendy: Yeah. Everyone, thank you again for joining us for the Medicinal Supplement Summit. I'm so thrilled to help share this vital information with you on how to sleep better. I know it's one of the main struggles that people have. And it can be very simple to remedy with the right supplements.

Of course some people have to do testing and kind of figure out why they're not sleeping. But taking targeted supplements can be the key to helping so many of you get the sleep that you deserve, that regenerative sleep that you need to be healthy.

Please, please take this life changing information home with you by clicking on the banner beside or below this interview. You don't want to miss one of the interviews from the summit. It is full of so much amazing information that can change your life. This is Wendy Myers. And my hope is that you and your family experience abundant health. And that all begins with taking the right supplements for you.

Power of Sleep for Survival (and Beyond!)

Sherry Strong with Kirk Parsley, MD

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It is not intended to diagnose, treat, or cure your condition or to be a substitute for advice from your physician or other healthcare professional.

Sherry: Hi, I'm Sherry Strong and welcome to The Sweet Freedom Summit, which is dedicated to helping end sugar addiction for good. And today with me to talk about an important piece in sugar addiction and that of sleep is Dr. Kirk Parsley, who served as an undersea medical officer at Naval Special Warfare Group 1 from June 2009 to January 2013. While he was there, he led the development and supervised the group's first sports medicine rehabilitation center.

He is a former SEAL and received his medical degree from Bethesda Uniformed Services University of Health Sciences in 2004. He interned in Obstetrics and Gynecology at Balboa Naval Hospital in San Diego in 2005 and subsequently completed navy residency in hyperbarics and diving medicine in 2006. He has been a member of the American Academy of Sleep Medicine since 2006 and served as a Naval Special Warfares expert on sleep medicine.

In addition, he's certified in hormonal modulation, so age management medicine. And after leaving the Navy, he went into concierge medicine and consulting. He continues to consult for multiple corporations and professional athletes and teams and lectures worldwide on sleep, wellness, and hormonal optimization and is currently completing a book on sleep and health optimization.

Now, his philosophy is very much aligned with the summit's in that he believes that, for wellness, it really is simple. In order to optimize our health and get the most out of our bodies and minds, we must live more closely to the way we evolve as a species. And he believes that many diseases and disorders that we accept as inevitable in modern society are unnecessary complications of poor sleeping habits, living in a toxic environment, eating foods we're not designed to digest, and allowing to stress to overwhelm us.

And his passion is to help patients and clients achieve the highest quality of life possible and realize their health performance and longevity goals.

So, welcome to The Sweet Freedom Summit, Dr. Parsley.

Dr. Parsley: Thank you. That's a robust introduction.

Sherry: It is. There's a lot there. But what it does is it tells people that you've got some interesting stuff going on, not just in here but in your life experience, that they can be helped by.

Dr. Parsley: Hopefully, yeah. Sherry: And I can't help think that your last name is perfect for health. It's one of the most optimizing foods ever.

Dr. Parsley: Yeah. It's interesting. When I was doing some trademarking, there's a great difficulty in me trademarking anything with the word parsley in it, even though it's my surname. So it's a different kind of trademark than the normal trademark. Because it's, I guess, the most commonly used word in the supplement industry. So...

Sherry: Oh really.

Dr. Parsley: There you have it. I didn't know that.

Sherry: Interesting. There you go.

Dr. Parsley: Learned all sorts of things.

Sherry: Wow. So tell us, I want to start off by talking, I'm going to go straight to the SEAL training because one of the things that's really widely known about it is the sleep deprivation and that kind of thing. And I wonder if the training and what you learned around sleep and sleep deprivation had any influence on your work now and connecting with sleep.

Dr. Parsley: Well, I would say indirectly it did. So I mean—and if you think about it, I probably chose the worst two professions for sleep, doctors and SEALs. I guess, so you probably shift working, law enforcement would be somewhere near one of those two as well, but in the top three. So when I went

through SEAL training, I was young. I actually dropped out of high school to join the SEAL teams and just barely skimmed by my GED and got into the navy and went to the SEAL training. So I was 18, 19 years old, 20 years old, when I was doing the most strenuous part of the training. So I was pretty resilient and kind of made out of rubber, I was young.

But then when I went through medical school, because I've been a SEAL first and I was married and I had kids and I'd done some work in between college and medical school, so I was older when I went to medical school. But I was still living kind of by that whole SEAL mentality, which I had been since like my 20s. And so like many people in America, the first thing to go out the window for me was sleep. As soon as I got into time crunch, I'd say, 'well, I'll just stay up late and I'll finish it or get up early and I'll do it or whatever'. That's what most people give up first, is sleep.

Now, of course, I preach that that's the last thing you should give up but— youth is wasted on the young. So when I went in to medical school, I was in my 30s and not that, that's super old but I was 15 years into chronic sleep deprivation, essentially. I mean it was more common than not that I was sleeping five hours a night or less for most of my time in the SEALs and then pretty much all my time in college and all my time in medical school.

But I never really made the connection. I don't know if you've seen my TED Talk. I know you have one as well, I talked about myself just kind of falling apart in medical school and I never made the connection. Then the doctor who I was working with is a great friend of mine and a mentor, he's in his 80s now and he's been a physician his whole life. And he never even brought up sleep. Not once, never came up as a question.

And like I was just falling apart. I mean, literally my hair was falling out. I was anxious. I couldn't concentrate. I was having problems with memory, with cognition, and sex drive, and mood, and skin. I was getting like psoriasis and just all sorts of stuff. I'm not a high-stress guy, so it wasn't like I was really stressed out because of medical school. It's just my body had just been under so much stress for so long due to the pace that I was pushing but also the sleep deprivation.

So to get to your actual question, when I got back to the SEAL teams as their physician, the guys came in my office and SEALs are like any other physically- based profession like a professional athlete or law enforcement or firefighters, anything like that. They consider the medical community their enemy, right?

Because the medical community can disqualify them from their job like a pilot or an athlete or something like that.

Sherry: Right.

Dr. Parsley: So when they go see the doctor for their routine checkups, they just say everything is fine. Everything is fine. Perfect. Great. No problems. But because I've been a SEAL and there were still lots of SEALs there who I've been a SEAL with, I've been through SEAL training with, I've done SEAL platoons with, they knew who I was, they trusted me, they knew I wouldn't disqualify them, so they came in and they told me the truth. And the truth was they were experiencing all that stuff that I was just telling you I was experiencing in medical school.

And this time, they're in their mid-to-late 30s, some in the early 40s. And of course they're a super motivated group, but then one of the biggest complaints was just the motivation wasn't there. I mean, they're still getting up and doing it because that's who they are and it's their identity, but they just don't feel like doing it.

And the recovery is just bad. And their body composition is shifting and their food cravings are like off the chart, even though most of them are very diligent about their nutrition and very diligent about their exercise and a very intelligent group and like the ideal clients you want to be working with because they do exactly what you ask them to do. And they'll come back and report to you and they have no problem telling you that they think you're full of it and that didn't work and they want something else.

So it was through work and through them when they came in and they were telling me, "I'm having motivation issues and body composition issues and energy and memory and cognition and sex drive and mood." And none of it reached the level of disease, when being a medical doctor, that's all I know, right? That's all I was trained in. I'd learned how to recognize, identify, and treat disease, and that's it. If you don't have disease, a medical doctor is not well suited to help you.

So this was all subclinical. This is all sub-disease, right? They didn't have metabolic syndrome but they had pretty darn close to metabolic syndrome, right? They didn't have diabetes but they had pretty poor insulin sensitivity especially for people as fit as they were and eating as well as they were. And then eventually, of course all their hormones were a mess and their sex hormones as well as their stress hormones and inflammatory

cascades and oxidative markers and everything just looked bad.

I mean, they looked like 85-year-old out-of-shape men on labs. But physically, they still looked pretty good. They still look pretty strong and athletic. And it was probably like the hundredth guy who came in my office who told me exactly the same story and that was within probably two months of being there, that many guys had come in. And about the hundredth guy who was telling me a story just kind of stuck out to me that he said he used Ambien every night to sleep. And maybe it might have been because he was taking two or three Ambien, which wasn't all that uncommon actually, but I thought that actually seems to be common feature and it wasn't something I was really focusing on. So I said, 'well, I wonder if Ambien has any of these side effects', and I was thinking it would be something as simple as a side effect of the medication.

But then I had to learn about what Ambien is and what it actually does and what sleep actually is and what sleep actually does because I never learned anything about sleep in medical school. They don't teach you a thing about it. They don't teach you a thing about nutrition. They don't teach you a thing about stress, mindfulness, or anything, like any of the things that you and I would focus on to optimize somebody's health. I've had to learn all that on my own.

So in a very circuitous way of getting to a point, working with the SEALs did lead to my interest in sleep but it wasn't that you just had some passion about sleep because I was chronically sleep deprived or something. And I didn't put it together that what was breaking me down earlier in my life was sleep until I figured out that the SEALs' sleep problem was really important and I was able to correct 90% of all their issues just by lifestyle modification.

Sherry: Wow.

Dr. Parsley: But it took a while to get there. I mean, it's not like I just figured it out overnight. I mean, it was a pretty long journey.

Sherry: We know based on statistics that a lot of people are on Ambien and similar things to help them sleep. And I'd love you to talk about—and this will take a while, but I'm going to kind of piece it together—so the connection between sugar consumption and disrupted sleep patterns and what the cycle of them taking a sleeping pill or something to deal with that, how does that all kind of fit into one another? And at the same time, answer how important sleep is. You've given us a very good insight but can you answer that?

Dr. Parsley: Sure. So here's how I would piece all that together. The most important thing to realize is that the only time you get better at anything is while you're sleeping, okay. Everything that you learn, you learn while you're asleep. You practice and rehearse during the day but it doesn't get consolidated into your actual long-term memory and become a durable track that you can then connect with other memories and other emotions and combine and work with that information. You can't do that until you've slept. So something really interesting if you take somebody and you give them a novel training and it can be anything you want, it can be memory, it can be verbal, it can be coordination, it can be hand-eye coordination, and it can be athletic skill. It doesn't matter. Take a skill, a novel skill, teach somebody, give them an hour training session in the morning and then test them at the end of that hour to see how well they've learned the skill.

And then have them come back and test later again that evening. This has been done, Sara Mednick is a Ph.D. out of UCSD who's done a lot of this research, but it's been done for quite a while and there are lots of researchers. But when they come back that evening and you test them again, without giving them another training period, you just test them again, they'll do about 50% worse than they did after their first training session. But if you then let them go home and go to bed and get a goodnight sleep and they come back the next morning, they'll do—they'll come in and test the next morning as well as they finish the morning before.

So they actually consolidated all that stuff that they somehow forgot before the evening but then it still came back that night. And then more interestingly, if you have them come in and learn the skill, test them at the end of that, and then about three or four hours later, you have them take a nap, and then have them come back in the evening and test, they'll perform as though they've had a full night sleep. And then if they go have a full night sleep, after that, they'll come back the next morning and perform as though they've had a full night sleep again. So actually they'll learn twice as fast by putting in a short nap. That's just one example but it's true for everything.

So as most people know, when you exercise to get stronger and more enduring and more flexible or whatever, you're actually damaging your tissues, right? And the reason that those tissues come back stronger or more resilient or more enduring is because you've done more than those tissues can handle. But that only happens during sleep. When you're sleeping is the only time you're repairing.

So if you think about the fight or flight nervous system, which most people have heard of, it's like the maximum sympathetic nervous system and that's all the stress side of the autonomics, maximum fight or flight, there's no repair going on, right? Your body is actually consuming itself to make you superhuman, to make you faster and stronger and more enduring, higher pain threshold, quicker reflexes, taking more air, pump your blood faster, mobilize all your stored glycogen, all your blood sugar. All that's happening because you're in maximum stress state.

The opposite of flight or flight is stages 3 and 4 deep sleep, that's when you're secreting 90% of all the growth hormone and all the testosterone that you'll ever secrete, that's when you're insulin sensitivity is high as such when you're immune system is at its highest. So you're fighting off bacteria. You're fighting off parasites and viruses. You're repairing damaged tissues. You're repairing any kind of little injury. You're repairing any sort of purposeful injury. You're repairing—you're flushing neurotoxins out of your brain.

You're making your brain better able to handle the next day but you're also, like I said, consolidating everything that you've learned that day, working with it, emotionally categorizing it, all of that's happening during your sleep.
So really if you think about that, any metric that you use, I mean, I challenge somebody to come over the metric for how they measure their own performance that doesn't fit into there somewhere. So sleep will make you better at any metric, like anything you measure is helped by it. So that's part 1.

Part 2, as I said, the first thing that most people give up is sleep, right? As soon as their schedule gets tight, first thing they do is shorten their sleep. The second thing they start doing is changing their eating habits. Eating at their desk, eating while they're driving. And also, their cravings for the eating are— for what they eat, their food choices suck, right? Their food choices get worse. And that's a very predictable pattern.

If you look at the entire rest of the planet and every organism on this planet has evolved to use the sun as its cue as to when to be asleep and when to be awake just like us, of course, nocturnal animals that do it the opposite than us but they're still using the sun as the cue. The only animal on this, the only time any animal on this planet sleep-deprives itself other than humans, is when it's starving.

So when you're starving, your brain, essentially it's in your prefrontal cortex then hypothalamus, it's sort of a Darwinian lizard brain, but also in your prefrontal cortex where your concentration and decision-making skills come from, very, very sensitive to blood glucose. The interesting thing is though that it is sensitive to the blood glucose change, right? So it doesn't matter what the absolute number is, your blood glucose can be high but it starts going down too rapidly.

So the rate of change is too high for your brain to be comfortable with and says, this means we're starving. We need to get more glucose. We need to get more, obviously, sort of the way to mainline glucose is to eat sugar, like refined carbohydrates obviously are like the closest thing to mainlining glucose into your bloodstream as you can do. Well, I guess you could actually put glucose in your bloodstream, you know what I mean.

So if your brain just senses that then the most obvious explanation for that and, of course, it's a postulate we can't prove it, but the most obvious explanation was that you would want that animal to be able to travel further during the day. So you'd want to be awake more hours so it could travel further at night and then get up early and travel further in the morning, so it's depriving itself of some sleep.

But the interesting thing is when you start sleep depriving yourself, and especially if the sleep deprivation is coming unintentionally like in other animals, but it's the same as true as if you just choose to sleep-deprive yourself, it starts affecting your insulin sensitivity and your blood glucose regulation. And that starts affecting the rate in which the blood glucose drops.

So it actually interferes with your sleep to have poorly-controlled blood glucose and we know this because we know that people who are peri-diabetic or who have poorly-controlled diabetes have very, very poor sleep. You do sleep studies on them, they can't stay asleep. And it's because their brain keeps waking up. They're starving. They're starving. They're starving.

The other interesting thing is about other animals when they starve or when other animals are starving and they sleep-deprive themselves, the other thing that happens is when any time you sleep-deprive yourself, you raise your stress hormones. And when you raise your stress hormones, it starts impairing your prefrontal cortex, which is your simulator. It allows you to think about if I do this, what's the most likely consequence.

So it actually is your breaks, it keeps you from being too impulsive. But once that starts shutting down, you start becoming more impulsive and that's what you would want from an animal that's starving. You would want the animal to be willing to get

a little closer to people, to try novel foods that he has never tried to eat before, to try to kill another animal that he would never try to kill if they are carnivorous.

And so that ties in very well to the human situation. And if you look at somebody who sleep deprives themselves a little bit, not only does their insulin sensitivity radically change over a single night of short sleep. By about 30%, your insulin sensitivity will drop, which means that you essentially need 30% more blood glucose to feel normal because the sensitivity isn't there. Now, you do this chronically and it gets worse and then of course, you get into a lot of chronic inflammation and chronic stress issues and then you tend to exercise less than that and lowers insulin sensitivity even more and then you get increased body fat and so forth.

But then also leptin, the hormone that's secreted by our body fat, that primary signal is going on at night, our body fat is telling our brain how much stored fat we have, giving our brain some idea how much of an appetite we should have. Ghrelin is also stimulated in the brain and in the stomach, obviously, to initiate—well, an empty stomach is going to initiate this pathway and it's going to make you feel hungry.

So what your brain craves when your prefrontal cortex is impaired is something really, really sweet and something really, really fatty because you're starving. And so sweet is the immediate energy and fat is the storage, the ability to store. So donuts kind of makes sense when you think like that, right? What could be fatter and sweeter than some fried bread with powdered sugar on it?

So that's the part 2. And then part 3, whether it's a prescription sleep aid like Ambien or Lunesta or even a benzo like, Xanax or Valium or something like that, or if it's an over-the-counter like Benadryl or NyQuil Z or even people that use alcohol as a sleep aid. Alcohol and all of those drugs and I'll just classify—I'll lump them all under this one thing, so there's something called sleep architecture and sleep architecture is you probably heard of or maybe even have one of those sleep studies where they put all the electrodes all over your brain and they measure your heart rate and respiratory rate and how much oxygenation you're getting to your blood.

And then it measures what regions of your brain are active, the most active, and it picks up on all this. And then with the combination of all that data, we can say what stage of sleep you're in and how long you're in that stage of sleep. So it should ordinarily, you get into bed awake, you start going down into stage 2, which is kind of like that warm, fuzzy kind of feeling wherein you're kind of tuned out to your environment but you're kind of still there like you can still realize the sounds and things going on around you but you're just not paying as much attention to them and you may be even kind of integrating into that into some sort of like hallucinatory dream-like state as you're falling asleep, that's stage 2.

And then you go down from stage 2 in the beginning of the night, you'll get directly into deep sleep, stages 3 and 4, which is where I was telling is the exact opposite of the fight or flight. It's the most restorative, most anabolic part of our day and anabolic just means we're building. Catabolic means we're breaking things down. So we're using everything in our body to build and repair when we're anabolic and that's happening during stages 3 and 4 of sleep. And then you come out of that first sleep cycle and you come back up through stage 2 and then you go up into REM sleep and that starts clearing out neurotoxins in your brain and that starts affecting the memories and that starts affecting the emotional events and that's when dreaming is happening and all that other stuff. And then you stay in REM for a little bit and then you go back down into deep sleep and that's what we call sleep architecture, right.

Sleep architecture means we can predict one, you're going through stages 2, 3, 4, staying down there, you're coming back up, you're going into REM period, you're going back down, and there's a predictable pattern for how that should look. In the beginning of the night, it's primarily deep sleep and the morning hours are primarily REM sleep.

So the deep sleep gets shorter in duration over the night and the REM gets longer in duration over the night. And every sleep drug that I am aware of, that I've ever researched and that includes medical marijuana and reishi mushrooms and like anything that, any kind of esoteric thing that people have thrown out there, any type of sleep drug that I've seen interferes with sleep architecture in either decreasing the deep sleep, the stages 3 and 4 sleep, or decreasing REM sleep, or decreasing both. You can take a sleep drug like Ambien and use alcohol. And I've seen this hundreds of times now with the SEALs using that very method to get themselves to sleep for years. They'll go get a sleep study and their sleep study will be 98% stage 2 sleep.

So if you think about what's happening in sleep then it's really, I mean, it's super complex to get into what's happening in every brain region and what's happening with every hormone and every neurotransmitter. But if you just look at that and say, 'Okay, what

does this little sleep architecture graph looks like?' And then that's something we call hypnogram. So if the hypnogram looks good, you can say sleep's probably good.

But if somebody is at stage 2 sleep the whole time, it's hard to call that sleep, right? It's just unconsciousness. And we know that's what sleep drugs actually do like the dissociative drugs like Ambien and Lunesta. And the reason they've been sued for people going out and doing this really primal things like gorging themselves on food and paying for prostitutes and doing all sorts of strange things like that, it's just like I was talking about the starving animals.

Their brains become—searching for not only novel things but they're also being run by their lizard brain, right? That old brain that's underneath the neocortex. Humans have that as well. And when you're just operating off of that, it's like feeding, fornicating, fighting, fleeing, freezing like that, that's what that brain does. That's what that part of the brain does.

And so when you take those sleep drugs, what they really do, is they dissociate your neocortex, which is the part that makes us smart and which part that makes us human. If you dissociate that completely away from the lizard brain and then the lizard brain runs the body. Now, interestingly enough, you can have long in-depth conversations with these people. They will seem like they're totally normal and then they will just feel like they woke up all of a sudden, they'll be like how did I get here? Like, I can't tell you how many SEALs would tell me that story, but they'll be sitting at their desk at noon and they'll be like, 'what the hell, like…

Sherry: Wow.

Dr. Parsley: …what time—how did I get here?' Like they really feel like they just woke up and they've been at work since 4:30 in the morning because they couldn't sleep and they got up early and went to the gym so they could work out really hard before work thinking that would make them more tired that night. So they've been there eight hours already and they're just, they feel like they're just waking up.

I had a friend who, her doctor had given her a sleep aid. She was a divorced mom with two kids and the kids were actually at her husband's house and she took Ambien and then she woke up the next day, went down the stairs, and her house was just in complete disarray, like it had been completely ransacked. There was, just cupboards open and things flung out of the cupboards, furniture turned over, food wrappers all over the place, and she was afraid that whoever had broken into her house was still there so she ran upstairs and she locked herself in the bathroom and she called 911.

The cops came and it was her. She had gotten up in the middle of the night and gone downstairs and like eaten cupcakes and ramen noodles and like who knows, just done all sorts of weird stuff that she had no recollection of whatsoever. And that's not uncommon. It's not uncommon at all. The medical literature, because they want to approve drugs, they make it seem like it's a rare thing. It's a very, very common phenomenon.

Sherry: Wow. So we've talked about sleep deprivation and how that impacts our sugar cravings. When I was in my full-blown sugar addiction and I was starting the morning with half-a-liter of ice cream and I didn't stop eating all that time, I've never really had long bouts of insomnia, like the most—and so I've been very greedy about my sleep. But when I was in full-blown sugar addiction, I could sleep for 10 to 12 hours and feel like I still needed more sleep. So it was like there was never enough. So can you talk about too much sleep and sugar addiction, why you're not feeling rested?

Dr. Parsley: There's a couple of possibilities there. So almost certainly when anybody gets really far down any addiction pathway…And we know all the neurotransmitters that lead to that, the hedonistic highway of the dopaminergic paths and like all of those pathways are the same. It doesn't matter if you're addicted to sugar, cocaine, or sex, or gambling. It doesn't matter. It all looks the same. Almost every form of addiction that I am aware of has a very high concordance with depression.

So you're really depressed all the time. You're using your addiction as a way to sort of distract yourself from your depression, from your self-loathing and that cycle repeats, repeats, repeats, repeats. So something that's really interesting is that there seems to be a really high correlation—and this is just my personal experience. I haven't read any literature to support this.

But in my personal experience, people who are suffering from any sort of addictive pathway or people who just kind of have what we call the addictive personality, so there's somebody who's just very likely to get into addiction as their way to cope and, obviously, can change from one addiction to another. People do that all the time.

In America, obviously the most common is being addicted to your work because that's socially acceptable addiction. But they tend to have atypical depression. And atypical depression leads to overeating and oversleeping.

Whereas typical depression, people, they are anorexic. They don't feel like eating and they often have really bad insomnia. So I think that's one component that's going on.

The other component though is when you're talking about just refined carbohydrates and then—especially if you're talking about refined carbohydrates, super high processed stuff that's in boxes and bags in the middle of the grocery store where, we know, kind of all the poison is. There's all sorts of, we know there's all sorts of chemicals in there. We know there're all sorts of flavors and additives and all sorts of things that can lead to chronic inflammation and lead to excess stress hormones.

So one of the things that happens when you have an excess of blood glucose is you have an excess of oxidation, you have an excess of inflammation, just by pure definition. You have to have that to deal with to deal with the metabolic state that you're in. And when you have that metabolic dysregulation, you will need more sleep because, essentially, what most people don't realize is that when you're eating, especially carbohydrates, but it's anything really, when you're eating to excess, your body is actually shutting down its response to that.

And so even though people think that it's because you're eating much donuts, you're overfeeding yourself and making yourself obese. What's making you obese and what's making you tired and what's making you fatigued and what's making your muscle mass go away and making you weak and making your bones weak is your cells have shut down. They are no longer responding to this food that you're eating. It doesn't matter how much you eat.

You're eating for emotional reasons and you're eating for other satiety cues that have nothing to do with your cellular needs. But the receptors are in your cells that bring those nutrients into the cells, whatever nutrient happens to be in that food. And obviously, we're talking about low-nutrient dense foods. There's not that much nutrients to go around anyways but the cells aren't responsive to it at all because they're so used to having an excess.

The receptor model, I give the metaphor often, if you lived in, let's say, if you take a look at suburban neighborhood and think of every house as a cell, in any tissue in your body, it doesn't matter, every house is a cell. And the only food in that neighborhood is a pizza delivery guy and he drives around and he delivers pizzas to the houses and he does it totally randomly, right? This is the same as your bloodstream, right? The streets are your blood vessels and his car is just like a protein that's carrying some sorts of nutrients. And the way he gets into your house is he pushes the doorbell, right?

So if you live in let's say a neighborhood that had a hundred houses and you had a thousand pizza guys driving around the streets, how many doorbells would you have on your house and how big would they be? You would have like one hidden doorbell like under the porch, right? So that only when, like only when one of the pizza guys knew how they get into your house or a couple of them. Your cells do the same thing.

And then if there's one pizza guy and a thousand houses, you would have doorbells all over your house and big, shiny—and these are cellular receptors, right? So when there's an excess of anything around, the doorbells go away. The receptors for it go away. Your body is a smart machine. It's like why are we going to make a thousand receptors for something when we have 10 times more of it than we need?

Sherry: Right.

Dr. Parsley: So let's use that protein for something else. Let's use that energy to produce something else. So that would be my reasoning for the correlation between excess sleep, is that you actually need sleep because you're metabolically broken. You're starving. Your cells aren't repairing as quickly as they ordinarily would. Your brain is not repairing as quickly as it ordinarily would. And then of course when people get obese, they tend to have an obstructive sleep apnea and they decrease in respiratory rate and acidic blood because they're not breathing enough and all that other stuff kind of compounds and just makes it worse into worst and more worse.

Sherry: Cool. Great answer. So I'd like to talk a bit about, I've heard of Roman writings that talk about first sleep and second sleep and how the body would sometimes when it worked with the natural sun cycles, if we went to bed earlier and then we'd wake up, and we'd have this period where it wasn't insomnia, it was actually really peaceful wakefulness and then we fall back to sleep. Can you talk about that and perhaps how it's connected to the fact that we have lamps and lighting and artificial lighting and computers, and watch television in unnatural kind of cycles.

Dr. Parsley: Yes. So what's going on there and this is documented very well through historical evidence and journaling and things like that, we know that it was really common for people to do what we call the dual sleep. The thinking behind that is that, of course, most people assume that we evolved, that the human race evolved primarily somewhere around the equator and then as we

became smarter animals and we could protect ourselves from the elements and build shelters and so forth, we started drifting further and further away from the equator. And so the farther that you get from the equator, the bigger the shifts of night and day during winter and summer months, right?

So if you look at hunter-gatherer tribes that haven't been exposed to electricity ever, and they still exist today, then you can study them and they're all pretty close to the equator. I mean, they might get like 10 degrees of latitude or something. We don't find that dual sleep in those but you're only looking at about a 90-minute difference between the length of the night in the summer versus the winter. But if you go up to, say, New York City, that's 40 degrees latitude, right?

So your summer, or your winter night, can end up being 15 hours long or something like that. And if we're using the sun as our cue as to know when to be awake and when to be asleep, well we just don't need 15 hours of sleep, right? It just wouldn't make sense that we would sleep for 15 hours. Now, I think it's a pretty safe postulate that being human, I mean if you look at us compared to every other kind of predator on the planet, we're pretty weak. We're pretty bad. Most of us couldn't beat up a raccoon or something, right? Once we learn how to make tools and so forth, we got better and better at becoming the top predator. But when you think of things like big cats and their ability to see at night—nighttime would've been a very dangerous time for people to be running around.

So you can make it I think a pretty solid case out of sheer logic that our ancestors that perhaps there were some of our ancestors that had a shift where they preferred to be awake at night and asleep during the day. But they probably weren't that likely to have offspring because they were putting themselves at big risk. They could step in the holes and fall off the cliffs and be eaten by animals and all sorts of other things.

So the theory about the dual sleep is that when the nights get really long, as I said earlier on the hypnogram, you'll see that deep sleep, the first say four hours, of sleep of an average person's sleep, let's just call it eight hours, the first four hours is going to be primarily deep sleep. And there'll be some REM. And that's primarily deep and then the second four hours are going to be exactly the opposite of that. It's not like a flip of a switch. It's not like a super subtle gradation. There's kind of like a pretty distinct shift in the middle of the night where things start going more heavily towards REM.

So the thinking was, well, people are really well rested because they did have these 15-hour long nights, so they, maybe at the beginning they did sleep 10 hours or 11 hours, or something like that. But once you've kind of paid back all of your sleep debt and you're sleeping kind of the same amount every night in your activity and the repair of your body needs to do is pretty similar every day, you just can't sleep longer than you need to. Your body just won't do it.

So the thinking was that you do that deep sleep and then you wake up anywhere from two to four hours depending on how long the night was. That's when a lot of children were made when people lived in single-room houses and had three or four kids already. The kids wouldn't wake up in the middle of the night but the adults would because kids need 14, 15 hours of sleep. So they would sleep through the night and their parents would have their opportunity to procreate some more during that or they'd visit with neighbors.

They would—this is all documented. They go over and do board games with their neighbors, whatever, just really common thing, smoke some cigars or whatever kind of plants they smoke and then go back and lay down and get their second sleep. That historically has been documented very well. We don't have great research on it right now because of like you said, most of the places were research is happening is Westernized countries and industrialized countries and they all have electricity and they'll have televisions and computers and iPhones, smartphones, and all the stuff. And so our nights, it doesn't matter what the sun does now, right, because we control that.

At some level we've kind of taken ourselves off the planet, right? Like we went along for the ride for a few million years and then we just said we got it from here. We're going to make it light when it's dark. We're going to make it dark when there's light. We're going to make it cold when it's hot. We'll make it hot when it's cold. We'll figure out ways to grind up stuff we could never digest and make food out of them and eat that. And we've just kind of said we're out of the game now. We're smart enough to control everything. We're going to hack our way now. Now, we're even smarter, we're going to bio-hack everything and figure out how to outsmart millions of years of evolution.

So the dual sleep is very well historically documented. But the point of that was that the research, if any research were to go on today, it just wouldn't be true. I mean, because of electricity, you just wouldn't have that problem. But as early, I think there was a journal found from 1905, somewhere in the mid-West, so let's say maybe 25, even 30 degrees latitude, and the

average sleep for this household essentially they're spending about 10.5 hours a night in bed on average. And most of them weren't sleeping all the way through the night, they're waking up for an hour or two in the middle of the night.

Sherry: I read in some sleep deprivation training that one of the things they would do with Navy SEALs is to have them in a room where they pumped in the sound of a baby crying all night long. And it made me think about how many women are impacted by children, their sleep, when you're just having children and their reliance on sugar to kind of cope with the sleep deprivation and the baby crying. Can you talk about just that piece and how women perhaps, or even parents, because now a lot of people are co-parenting, that sleep deprivation piece and what you can do instead of using sugar as a crutch?

Dr. Parsley: Wow, if I could solve that issue, we'd be having this interview on my private yacht or something. But unfortunately, the statistic is that it's both parents now, both parents lose, on average, six months' worth of sleep in the first two years of their child's life. So that's 25% of your sleep. Your sleep goes down 25% for the first two years. Now, if you're really smart like me, you have your kids two years apart, so that went on for six years instead of two years so I would have lost 18 months' worth of sleep during those six years making a bad situation worse.

But unfortunately, the way we evolve is not how we live, again, right? We very often have our children in separate rooms. And we feel like they should be in separate rooms because there's rush towards independence in the world for whatever reason. You got to make your kids really independent as quickly as possible. If you look—again, if we go back to the hunter-gather tribes that exist today, they all sleep together. They all sleep in the same place, right? They throw one animal skin down on the floor and five, six, seven people pile up in there. And if there's baby in there, there's breastfeeding, guess what, the baby just lays next to their mom, breastfeeds on and off if it wants to, the mom might have to wake up and fidget a little bit or might sleep through the whole thing. We just don't do that as a society anymore.

So whether it's people not wanting to have their babies in the bed and I can fully identify with that, I mean, when my wife is putting my youngest son in the bed, our first child, I'm like 250 pounds, I'm just thinking, I'm going to roll over and kill our baby, right? So like I couldn't sleep because I was so damn anxious about the baby being in the bed and feeling like even if I just sling my arm over, I'm going to injure this thing or something. This thing, my son. My son is this thing.

So that's part of the reason. But then another—I would say that's the early years. The first couple of years, it's just not how we evolve to do it. So my recommendation to people is that if you're going to crib-train your child and have their child in a separate room or even in the same room but you're going to crib-train, whether you're going to breastfeed, hopefully, or use formulas or whatever you want to do, but when the baby needs to wake up in the middle of the night, I just say, again, the best solution is just to sleep deprive one parent at a time.

So the other parent probably needs to like go down to the basement and sleep with ear plugs and eye mask on and get a really good night sleep for a couple of nights in a row, and then it's his or her turn to stay up with the baby and that's the best thing, essentially, to cope with it. You're still going to be sleep deprived but the faster, the sooner you recapture lost sleep, the less detrimental it is, the less deleterious it is.

And in sleep medicine we very commonly use a phrase called sleep debt. And we use it as this metaphor like credit card debt and it is very similar to credit card debt. If you don't get enough sleep, your body isn't ready for the next day. But you're still going to do the next day because you have to do the next day.

So you get up and you go do whatever you have to do the next day. Your body has to get that energy from somewhere and so you become catabolic, so you release stress hormones and you start using your own body as fuel. You start eating excess food, your crappier food, you're artificially raising your blood glucose through your dietary choices. So you're going to get that energy to keep yourself going through the day. But you still didn't get enough sleep. So even though you did those things to get through the day, there's still a debt. There's still a deficit that has to be paid off and then you do the same thing the next night and the same thing the next night and then people try to catch up on the weekends and then they go back into the week.

But what we know through clinical trials is that if I just went out and I grabbed a hundred people off the street right now and I said I'm going to put you in this hotel with like these great blackout curtains and there's no televisions or anything, like electronic-free, but we're going to put you in a cool, dark room for 14 hours a day and let you out for 10 hours a day and we'll take care of your kids and all your bills and your laundry and everything is going to be taken cared of for you.

You don't have to stress. The average person will sleep about 12.5 hours a night and they will do that anywhere from a week to three or four weeks. And then over the course of about six weeks, the average person will get down to where they're sleeping 7.5 hours plus or minus half-an-hour every night even though they're in a cool, dark room with nothing to do for 14 hours a day.

So unless you could lay in a bed for 14 hours a day and not sleep 6 or 6.5 hours of that, you probably have some sleep debt. So the faster you can pay that sleep debt back just like credit card, there's less interest on it. There's less metabolic tax on having it running around with this deficit because you're compensating for that deficit every day through other energy systems in your body.

So whether it's a shift worker or a new parent, I say, pay back the sleep debt as soon as you can possibly pay it back. And that doesn't have to be done in the long block either, I mean, you can pay back sleep debt with naps as well. So just, if you don't get an adequate night of sleep, seriously considering locking your office door and taking a nap during your lunch break. That will make a big difference, I mean, it'll not only make a big difference to your performance, in your mood, and how you feel, but it'll make a big difference to your health in the long run and that's something that's commonly happening here.

Sherry: Great. So given all your years of experience, seeing clients, and just kind of getting a big kind of net around your knowledge and experience, and then taking that and distilling a single piece of wisdom that you'd like to leave people with around this piece around sleep, what would that be?

Dr. Parsley: As with most things, the challenges and the chosen path were not at all predictable and what I found really surprising is that when I work with people, as you alluded to in my bio, I work with, through what I call Four Pillars of Health: Sleep, nutrition, activity, and I don't use the word exercise, because you don't necessarily have to exercise, you just need to be active, and then stress control or mindfulness training, whatever you want to call that. And you have to sort of optimize all four of these pillars to have an optimal life. And then there's a reality, here's ideal and then I can get that close, like that's the reality and then you use supplement in between there like either with nutritional supplements or gadgets or naps or whatever, like you mitigate and supplement for that deficit between reality and ideal.

And when I talk to people about nutrition, when I talk to people about exercise or activity, I talk to people about mindfulness, no problem. No problem. Whatever I say to do, no problem, no problem. And I say, "And you have to sleep eight hours a night." They're like, "Whoa, I can't do that, I'm way too busy for that, I don't have time for that." I'm like, "Then you don't have time for any of this other stuff."

So the point of all that being is the big surprise to me is that—I mean, I think getting people to sleep more should be easy, right? I mean it's a natural process. It feels good, like most people enjoy sleeping. It should be as easy as selling sex, but it's not. It's like selling malaria or something, nobody wants anything to do with it. Like I don't want any more of that than I could possibly have to have.

So, my number one obstacle is convincing people that sleep is as important as it is. And if you are willing to consider that, just get on Google and start typing away and you can read forever about how deleterious poor sleep is, insufficient sleep is, how much it affects every aspect of your life. You cannot possibly be your best with inadequate sleep. You double, triple, quadruple your risk for diseases and premature death and chronic insomnias is a 750% increased risk of suicide. That's a pretty significant thing. I don't know anything else that nearly makes you have an eight-times higher risk of suicide, which is probably the most severe human condition out there.

So convince yourself that you really need sleep. Read everything there's out there. Go read everything that I've written. Watch my lectures or listen to... I've been on hundreds of podcasts talking about this stuff. Once somebody realizes that they need sleep and they really need to make it a priority, it's not that hard. It's not a very difficult thing to do. It's like nutrition, right? It's like get rid of the crap, and then like it's pretty easy from there, just eat whole foods and everything else is just kind of tinkering.

So get yourself to truly value sleep and then once people really value sleep and they start trying to get more sleep, one sort of rule of thumb that I have for people—well, let me give you two, one rule of thumb that I have for people, because you're changing behavior, you have to intellectually change behavior, before it becomes automated, right? So one of the intellectual rules of thumb that I give them is, if you wouldn't get up an hour early to do it, you shouldn't stay up an hour late to do it, right? So lots of people will stay up an hour late to watch one more episode of their favorite television show but how many people would wake up an hour early to watch that show before they get to work?

Sherry: Right.

Dr. Parsley: Almost nobody, right? So that's an easy kind of trick, okay, yeah, I wouldn't wake up early to do this. Or if you think you would, then do it. You could just set your alarm for an hour early and watch that show in the morning. And then the second trick of making this an easier behavior to get accustomed to is I tell people to have two alarm clocks. So one alarm clock says it's time to wake up and get ready for your day, for you work, whatever you do during the day, the other alarm clock though is time to get ready for bed. If you've ever had a kid, you've ever been a kid...

Sherry: They do have that app now...

Dr. Parsley: Yeah.

Sherry: Yeah.

Dr. Parsley: If you've ever had a kid or been a kid, you realize there's this protracted period of getting a kid ready for bed. Humans need the same thing. It would be ideal if we probably spend two hours getting ready for bed, but most people aren't going to do that.

So I say set an alarm clock an hour before you need to go to bed. And that's just as important and is just as real as your morning alarm clock. And when that alarm clock goes off, the computers go off, the lights dim down, like you quit stimulating yourself, really all sleep hygiene is about is decreasing the light in your eyes and decreasing the amount of stimulation, whether that's noise, mental stimulation.

So trying to work on your computer even if you're wearing blue blocking glasses and you have the f.lux on your computer and you're blocking all the blue light, but you work on your computer until 9:59 and then get in bed at 10 o'clock and think you should be asleep by 10:15. Not going to happen.

Your brain's way to awake.

So I think there were several things I gave you there but....

Sherry: Yeah.

Dr. Parsley: I told you I talk too much.

Sherry: What I do know is that you have tons more of information that people can mine and go online and find out. And the best place to reach them is?

Dr. Parsley: My website would be the start. So it's Doc Parsley, D-O-C and then my last name, parsley, P-A-R-S-L-E-Y, DocParsley.com.

Sherry: Great. Well, thank you so much for joining us on The Sweet Freedom Summit. It's been fascinating to talk to you and I'll actually be checking out the website and mine it even further than I already have.

Dr. Parsley: Okay, thank you.

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