



DR. MICHAEL BREUS INTERVIEW

The Sleep Doctor

By Chris Wark

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The Sleep Doctor

Hey, everybody. Welcome to another expert interview on the Chris Beat Cancer show and podcast. Today, I have The Sleep Doctor, Michael Breus. Michael Breus is a clinical psychologist, and both a diplomat of the American Board of Sleep Medicine and a fellow of the American Academy of Sleep Medicine. He was one of the youngest people to have passed the board at age 31, and with a specialty in sleep disorders is one of only 168 psychologists in the world with his credentials and distinction. Dr. Breus is on the clinical advisory board of the *Dr. Oz Show* and has been on the show a measly 39 times.

He's been a principal researcher on numerous grant-funded projects and clinical trials. He's authored several best-selling books – including *The Power of When*, which is all about working with your body's inner clock for maximum health, happiness, and productivity. He's been a consultant to huge brands such as Crown Plaza Hotels, Princess Cruise Lines, and Disney. He writes for *The Insomnia Blog*, *Huffington Post*, and *Psychology Today*. He's been interviewed many times on CNN, Oprah, *The View*, Anderson Cooper, Rachael Ray, *The Doctors*, and *The TODAY Show*. And now he's on the most prestigious show of all: the Chris Beat Cancer show.

Michael: You bet.

Chris: Michael, it's great to have you on. Thank you so much for taking the time out of your busy schedule to talk about sleep with my audience.

Michael: It's my pleasure, Chris. I really enjoy what you do, and I think it's super important. Oddly enough – this is going to sound strange – but cancer is kind of a hobby for me. When most people are an expert in an area, sometimes they like to drill down into one specific thing. I've always enjoyed learning more about cancer and sleep, because most people don't think that there's a tie together and, in fact, there is.

Chris: There's a huge connection with cancer and sleeping. It's something that I try to talk about often. When I was diagnosed, I was completely clueless about cancer, health, nutrition, sleep, all that stuff. And it was a long learning process of trying to figure out how to get my body back in harmony with nature. It started with the food that I was eating. I remember thinking – inspired by books I was reading at the time, too – how far away we've gotten from living “naturally” as our ancestors did and being connected to nature. I don't know if I learned it or if I had an epiphany; I don't know. But at some point, I remember thinking, “Yeah.

My sleep habits should probably be more closely aligned with the cycle of the sun,” right?

Michael: Right. There’s interesting data on that, as a matter of fact. When you start to look at our bodies – our bodies were meant to sleep when it’s dark and be awake when it’s light. And, of course, the invention of the light bulb screwed that whole thing up incredibly. It’s interesting too, because Thomas Edison is known for saying, “I’ll sleep when I’m dead. Sleep is not necessary.” He was really an anti-sleep kind of person. And, of course, he ended up inventing the one thing that prevents many people from sleeping, which is light.

And I like your holistic approach to everything. And sleep is really all about that aspect of it, meaning that we’ve got to make sure that our bodies are getting enough sleep. There are a lot of sleep myths out there now, and we’re going to talk about some of those today. But, generally speaking, one of the biggest ones that I always like to start out with is letting everybody know that eight hours is a myth. Not everybody needs eight hours of sleep. Historically, we used to think that was the case: everybody needs this amount of sleep.

Me, personally? I go to bed around midnight. I wake-up around 6:30_{AM}. I get 6.5 hours of sleep. I’m The Sleep Doctor, for god’s sakes, and I get 6.5 hours of sleep. How can that be? It turns out that the more consistent you are with your sleep schedule – by going to bed at a very particular time and waking up at a very consistent time – your sleep cycle actually begins to shorten because your body becomes better and more efficient at it.

Chris: As people age, they tend to require less sleep, it seems; especially the elderly. What’s the explanation for that?

Michael: It turns out that they don’t need less sleep, but they’re getting broken sleep multiple times throughout the day. I just turned 50 this year and so now I’m starting to think a lot about what goes on with your life, your health, all these different things as you hit these different milestones. It’s kind of interesting, what we see as we start to get older is that people are taking a lot of unscheduled naps. They go into retirement. They don’t have a lot to do. They’re watching TV, reading a book, what have you, in their favorite chair; and boom, they’re out for 30 minutes. So, that has an effect on their ability to fall asleep and stay asleep at night.

When we look at it from a physiology standpoint, there’s also another interesting aspect to it, which has to do with your eye. So, as you get older, your lens in the cornea begin to yellow across the eye. This does not allow light to come in as it once did. And light is really what we call a zeitgeber, which basically means it’s a timekeeper. Light turns the melatonin faucet off in your brain. If you understand that light has an effect on your brain that way, and your body is not filtering light

appropriately, it has an effect and it can actually move you earlier and earlier.

This is one of the reasons why we see a lot of elderly folks going to bed so early. I've got patients who say, "Yeah, I go to bed at 7:00 at night." My first question is, "Why?" I get one of two answers. Either, "Gosh, I start to feel tired around then" or "I'm just bored. I have nothing else to do, so I figure I'll go to bed then." Then they wake-up at 4:00 in the morning.

Chris: Yeah. I typically go to bed around 9:00 or 10:00_{PM}, and I wake-up pretty consistently sometime around 7:00_{AM}.

Michael: Wow. You get a good bit of sleep. That's awesome.

Chris: I do. I used a sleep tracker last year. It wasn't necessarily a good one, but it was a Fitbit kind of a device. I wore it for three months, just to see how many steps I was getting, to see what it had to say about my sleep, and things like that. It was actually a product called Misfit.

Michael: I know it.

Chris: I can't say for sure whether it's accurate, but what it told me was that I was getting about an average of 8 hours and 25 minutes a night of sleep.

Michael: Here's the thing about trackers, just in general. There are a lot of trackers on the market. The biggest problem is accuracy. When I look at tracker companies, the big problem that we have when trying to attract something like sleep is that there's no metric for it. I know what a calorie is, I know what a step is, I know what weights that I lift. But if I turn to you and I said, "Give me a number for how you slept last night," what are you going to say? 74? 96? What scale are you going to use? It's very complicated. So, when we look at companies who are good at tracking things, they don't necessarily have the sleep background to understand how to create that metric. So, that's problem number one.

Let's say you find a company that does a good job with that. Problem number two is, who cares? If I got 17 minutes of REM sleep, I don't know if I care one way or another. If it's comparative to somebody my age and gender, then I've got a metric or a thermostat, if you will, to be able to understand that. So, if I am a 50 year old white male and I only get 6.5 hours of sleep, and I look at other 50-year-old white males and I see I'm in the average, well then I'm okay with that. That's the second aspect. We need some comparable data to personalize it, to understand it.

The third thing that you need in a tracker is advice. Based on my sleep the night before, or the week before, or the month before, what do I do to fix it? Or what do I do to make it better? Almost nobody out there does that. There's only one company I found that can reliably do all of those things and is a sleep company, like has been a sleep company for years.

It's called [SleepScore Max](#). They actually just launched a new app, believe it or not. You can go on the app store and download [SleepScore](#). And it actually all works from your phone, believe it or not. You don't have to have anything on your body. You take your phone, and there's these little speakers on the bottom that you point towards you. And are you ready for this? It uses echolocation to figure out your breathing patterns, because you have different breathing patterns in each stage of sleep. It's like a dolphin. It sends out a sonar signal and then comes back. The speed at which it comes back, the algorithms, are pretty sophisticated. It actually figures out your sleep. It's kind of cool.

Chris: That's amazing. I wonder if two people in the bed would screw it up?

Michael: That's a great question. The answer is no. You'd have to have two phones. It only goes out about three meters.

Chris: Got it.

Michael: It's not going to be a problem. Now, let's say, you've got a dog sleeping in your bed – because there's a large percentage of people that have animals in their bed. I do; I'm one of those guys. By the way, in my bed, it's me, my French bulldog, my chihuahua, my wife, and a cat. That's what happens in my house, on any given basis.

Chris: Let me just tell you, this is not a typical night, but when I got up this morning, I woke up to find me, my youngest daughter, my wife, the dog, and the cat at the foot of the bed.

Michael: That happens a lot, especially with young kids. My daughter used to burrow in from the bottom. I wouldn't even know she was there until the morning. Of course, when kids are lying in bed with their parents, for some reason, have to sleep horizontal, while the adults are sleeping vertical. And they have to flop around like fish all night long, just to drive you crazy. So, I feel your pain, brother; I feel it. But the tracker only tracks the individual closest to it.

Chris: That's cool. And those problems you described earlier were the same problems I had with the little device I wore, which was that it told me some stuff and I was like, "Well, is that good or bad? Is there anything I can change?" It didn't give me any advice, which would be really helpful. So, that's really cool. Does that app you're talking about, the SleepScore app, work on airplane mode?

Michael: It does, as a matter of fact.

Chris: That's great.

Michael: That's the whole purpose of it, so that way you don't get interrupted in the middle of the night and things like that. So, it's actually pretty cool.

Chris: What are the worst sleep-destroying habits that many people have and may not know about?

Michael: If people take one thing from this today, it should be that consistency is king. And it's consistency in your wake-up time more so than consistency in your bedtime. People are going to have a variable bedtime. And I'm going to teach everybody a simple calculation to figure what time they should go to bed. But it's all about the consistency of your wake-up time. Because when you wake-up, your eyes open and you get sunlight, which turns off that melatonin faucet and then starts your day. The more consistently you wake-up, the more your brain knows when to go to sleep, and it will actually curtail the amount of sleep that you need.

There are a lot of people out there who stay in bed much longer than they actually need to. So, what's great about having a consistent wake-up time is that it actually helps you figure out what your total sleep time should be.

Now, the second part of that equation is, "I know what my wake-up time is, generally speaking, because I've got to go to work, or I've got to get up to get the kids ready, or they've got to go to school." That's a socially determined wake-up time. Here's how we can leverage that to our advantage. Let's say, for arguments' sake, that your socially determined wake-up time is 6:30_{AM}. One of the things that we know is that a sleep cycle is approximately 90 minutes long, and most people have five sleep cycles. So, $5 \times 90 = 450$ minutes, divided by 60 is 7.5 hours. We show that eight hours is a myth right there because the math doesn't even add up. But let's take our 6:30_{AM} wake-up time and count backwards 7.5 hours – that puts us at 11:00_{PM} as our bedtime.

And it's a super simple calculation. A lot of people don't know when to go to bed. When was the last time somebody told you to go to bed? At 8 or 10 years old, something like that? That's part of the issue here – a lot of times people will say, "Oh, I was watching *Game of Thrones* and I looked up and it was 2:00_{AM}. Oh, crap. It was a weekday." Setting an alarm to teach you when to go to bed is actually more productive than setting an alarm to wake-up because you should wake-up naturally at a very particular time, based on your circadian cycle and the consistency of your bedtime.

Chris: That makes a lot of sense. You mentioned a calculation about figuring this out. Is that what you're talking about just now?

Michael: Yeah. That's the calculation. The second thing that most people do, that they don't realize, is caffeine. Caffeine is the number one abused substance in the world. That's just fact. But what most people don't understand is that caffeine has a half-life, which means that half of it is metabolizing your system in a certain period of time. The half-life for caffeine is between six and eight hours. Hours! When you think about

something like that, my second recommendation for people after having one consistent sleep schedule is to stop caffeine by 2:00_{PM}. You stop caffeine by 2:00_{PM}, and then by about 10 or 10:30_{AM}, which we're thinking is close to most people's bedtimes, at least half of the caffeine is out of your system, and it won't be affecting your ability to fall asleep or stay asleep.

Chris: It still could be. If half of it is still in there.

Michael: You jumped the gun on me.

Chris: Sorry.

Michael: I've always got people who say, "Oh, Michael, Sleep Doctor, you don't know what you're talking about. I can have a cup of coffee right before bed and I still fall asleep. What about that other half of the caffeine that's still in me?" It turns out that if you do have a cup of coffee and then fall right asleep, one of two things is going to happen. Number one, you're so damn sleep deprived that you're overwriting that caffeine's effect on you. Or number two, if I put electrodes on your head, I can guarantee that you're not getting the quality of sleep that you're looking for. That also speaks to this idea that half of the caffeine is still left in your system. If you're a coffee drinker or a caffeine person, that's your dig. But if you want to have less effects on your sleep, stopping by 2:00_{PM} is really going to be a good idea.

The third thing I tell people about, when they're asking about bad habits, is alcohol. The number one sleep aid in the world turns out to be alcohol. There's a really big difference between going to sleep and passing out, and that's one of the things that we have to get people to understand. While alcohol does make you feel sleepy, it actually keeps you out of the deeper stages of sleep. Half of the reason that you have a hangover is from lack of deep sleep. The other half is due to dehydration. And, of course, alcohol is a diuretic. And once you pee and break the seal, you're going all the night long; and that can be a real problem.

So, if you stop alcohol three hours before lights out, after you've had maybe two or three drinks, you're going to be in good shape. The basic rule is one hour per alcoholic beverage. If you're having a nice glass of wine or a spirit with dinner, then you want to stop that roughly three hours before lights out to give your body time to metabolize, because it takes the body approximately one hour per alcoholic beverage.

Chris: I don't drink caffeine at all because if I even smell caffeine, I can't go to sleep that night.

Michael: That's interesting, too, because there are people who have different sensitivities to caffeine. That's something that we're starting to learn now. And so, you're super sensitive to it, whereas I've got people in my

clinic that honestly drink two to three pots a day, and they go right to sleep because their body is so used to it. There's actually MRI data to show that if you've been ingesting caffeine for long periods of time, your brain actually doesn't function well without it.

Chris: Yeah, I get it. Your body has become adapted to it and dependent on it, in some way.

Michael: Exactly.

Step number four is exercise. The single best way to increase the quality of your sleep is to exercise. A lot of people don't realize this, but exercise can rev your body up. And so, you don't want to exercise too close to bedtime. You want to give yourself about four hours for your core body temperature to start to cool down. Because the problem is that your core body temperature has to drop, in order for your brain to release melatonin. So, if you're out there running and gunning, your core body temperature is up and that can be a problem.

Chris: Exercise revs you up. And I've definitely read in multiple places not to exercise late at night; and I don't. My preferred exercise time is about 4:30 or 5:00_{PM}. After my work day, I go hit the gym. That's when I like to do it. Some people like to do it at 5:00_{AM}. I just can't.

Michael: The people who like to do 5:00_{AM} exercise have a particular chronotype. My new book called *The Power of When* is all about chronotypes. And for folks out there who don't know what a chronotype is, if you've ever heard of somebody being called an early bird or a night owl, those are chronotypes. It turns out there's not two, there's four. And I created this quiz that people can take to fall into one of these four categories to understand more about their chronotype. It's actually pretty interesting. And I think you had an opportunity to take the quiz, am I correct?

Chris: I took the quiz, and it turns out I'm a Bear. I would love for you to describe the four different chronotypes – the different animals and what their characteristics are. And then, we'll make sure people take the quiz, which is at ThePowerofWhenQuiz.com, right?

Michael: Exactly. The four chronotypes. I replaced the bird analogy because I'm a mammal not a bird, and I wanted to find mammals. Then I also found mammals that actually follow these particular patterns.

The first one, early bird, is replaced with what's called the Lion. We know that lion's first kill is usually before dawn. They are early, early morning creatures. And when we look at the characteristics of early birds, or what I call Lions, they're pretty interesting. Lions generally have a tendency to be type-A personalities. They're very strict. They make a list almost every day, and they go from step 1 to step 2 to step 3 to step 4 – very organized. They're great managers. They have a tendency to be COOs of a

company. They're great at managing. They don't necessarily do the work itself, but they can get other people to manage to do the work quite well. Lions make up about 15% of the population.

The next category are Bears, which is what you are. Bears make up about 50% of the population. And being a Bear is the best because all of our society is built around a Bear's schedule. Bears have a tendency to wake-up around 7:30 or 8:00_{AM}. They work a 9:00_{AM} to 5:00_{PM} job. They go to bed at around 9:30 or 10:00_{PM}. They're what I call solar sleepers. They're the people who actually get stuff done. They're usually pretty outgoing people. They have a tendency to make friends easily, and they're just a real fun group to be around.

The next group of night owls, which represent about 15% of the population, I call Wolves. So, I'm a wolf. I don't go to bed ever before midnight. I just can't. My body just isn't built that way. Wolves have a tendency to be creative – so artists, actors, musicians, people like that. If a Wolf bothers to make a list, they'll go from step 1 to step 12, to step 7, to step 18; and it makes perfect sense to them, but it doesn't make any sense to anybody else. Wolves are late night people. Most of the time, throughout their lives, they're told that they're lazy. They're also told that they don't work within society very well.

These are the people who are great on shift work, but not great at the 8:00_{AM} meeting on Monday morning type of thing. Again, they make up about 15% of the population. And believe it or not, they have the most health consequences. I know the show has something to do with cancer for a subject matter, and wolves actually have a greater tendency to have cancer than any of the other chronotypes.

The final chronotype is what I call the Dolphin. The reason I chose dolphins is because (most people don't know this) dolphins sleep unihemispherically, which means that half of their brain is asleep while the other half is awake and looking for predators. They're never asleep and never awake, and I felt like that was a good representation of insomniacs; that's the category that I really contributed the most to. The other three have been around for a while, but what I discovered was actually a genetic propensity for some people that have insomnia.

By the way, these categories are all based on your genetics. You could go to 23 and Me and they actually have a report on morningness and eveningness there, that you could get to learn more about your genetics. But this is all based on genetics.

So, the Dolphins are just like the Lions, but they have a lot of anxiety. So, they're type-A personalities, but they've got just enough OCD in them where they can never quite finish a project. They always think there's a little bit of tweaking that needs to be done. They're anxious people, in general, but they are very hard workers; great people to get along with.

But oftentimes, they're better off if you just leave them alone and let them do their own thing.

Chris: Yeah. That makes a lot of sense. My wife and I are both Bears, pretty much.

Michael: Which is good when you live with somebody who's the same chronotype. But sometimes you can be off.

Chris: Yeah. I know a lot of couples that are off. I'm thinking of one in particular where the husband loves to stay up and work late into the night. And then, he'll sleep in. He works from home, runs a business from home. But my wife will typically sleep in longer than me, even though we go to bed at the same time. I don't know what that's about. When I wake-up, I'm up. There's a certain point where I'm like, "There's no point in me lying there anymore."

Michael: There's actually some data to show that women require more sleep than men. We think it has to do with the fact that their brains turn out to be a little bit more complicated and they actually do more with their brain. Women are much better at multitasking than men are. I don't know if that's an evolutionary thing, but being a mom and being a wife and being a career person and all these different things require a whole lot of attention in a whole lot of areas. And so, your brain gets tired. And we think that has something to do with why women have a tendency to sleep a little bit more than men.

Chris: That makes a lot more sense to me. Do men tend to be more morning people than women?

Michael: It doesn't seem to fall into that category, like with the chronotypes. We never saw any real big gender differences between chronotypes, other than the fact that women do have a tendency to sleep longer than men have a tendency to sleep.

Chris: So, I'm a morning person. Usually when I wake-up, I'm just happy; I'm awake and I'm in a good mood, typically. When my wife wakes up, she's typically not in a good mood. And if one of the kids wakes her up, or if I wake her up, in the middle of the night, she's ferocious. Does that mean anything to you?

Michael: Well, women are actually the ones who talk to me more about insomnia than men have a tendency to do. There's no data yet on mood and gender differences with sleep, in particular. But one of the things that we know is that disrupted sleep has a dramatic effect on mood, no matter what. My daughter calls them grumpy fish. It makes perfect sense, as soon as you hear her say that. Because at the end of the day, one of the things that's really important is understanding that sleep affects you emotionally, it affects you cognitively, and it affects you physically. So,

when somebody's sleep is disrupted, they're going to feel effects in their body, in their mind, and in their emotions; so, that's not an uncommon thing for me to hear.

Chris: We talked about habits that are affecting good sleep. Cutting back on caffeine – not drinking caffeine late in the day or not drinking it at all – cutting back on alcohol or not drinking it at all, things like that are obvious things that people can do to improve their sleep habits. Are there some others?

Michael: Oh, yeah. There certainly are. Those are the big ones. But one thing that a lot of people don't think about is sunshine. Getting outside for 15 minutes every morning is incredibly healthy for two reasons. Number one, vitamin D production, which actually helps with sleep. Number two, resetting that circadian rhythm again. If you can get outside within 30 minutes of waking up – take the dog for a walk, or go get the mail in the morning, or the paper, or what have you – any of those types of habits or activities are going to be very helpful for your overall sleep cycle. But a lot of people don't think about that.

Another big one is fresh air. Just being outside and having fresh air is really good. There's data that now shows that if you sleep in a space that doesn't have good filtered air, doesn't have well circulated air, lots of carbon dioxide in there, it has an effect on your ability to reach deeper stages of sleep.

There was a great study that looked at insomniacs. They brought them all out to the woods and took them camping for two weeks. By the end of the two-week study, they all slept great just by being outside, going to bed when it got dark, getting up when the sun rose – and these were chronic, chronic insomniacs. These were no joke. These weren't people who occasionally had sleep problems. These were hardcore insomniacs; and all of them did much better being outside.

Other things to think about is blue light. One of the things that we see a lot about in the media these days is blue light. Let me just dispel a few myths here. First of all, the light itself is not blue. There's a spectrum of lights. So, any white light that you see is made up of a spectrum of many different colors. The area of blue is approximately 450-480 nanometers; that's the frequency of that light. Now, why is that important? It turns out that about 10 years ago they discovered that we have cells in our eye that are called melanopsin cells, and they get triggered by this particular frequency. So, when that frequency hits them, it turns off that melatonin faucet I was talking about earlier. One of the big problems is people playing with their devices right before bed – they're checking Facebook, checking email. Here's the thing, the blue light is literally right there on your face because the proximity of the device is so close.

Now, one thing that people are going to say out there is, “Oh, I’ve got night shifts on. I’ve got one of those software programs on.” The data now shows they don’t work, period. Data out of Rensselaer Polytechnic Institute in New York shows that, specifically, the iPhone one does not suppress the blue light effects on melatonin. I don’t know about the Android one. If you’re doing something on your laptop, however, there is a program that does do something really good. It’s called Flux; just google it and it’ll pop up. It’s free. It downloads through your computer and it changes the color temperature on your computer, which is actually a better way to be interacting with your device.

Chris: That’s really good advice. What about [BluBlockers](#)?

Michael: I love BluBlocker glasses. I’m a huge fan of them. I have both of my children wearing them every night, if I can get them to; my son does it more so than my daughter. But it’s very, very helpful, especially when they’re watching television.

Chris: I actually have two pairs, depending on what mood I’m in.

Michael: I love it.

Chris: My wife thinks I’m just like the biggest dork ever, by the way. Let me just be very clear about that.

Michael: That’s okay.

Chris: I’ve got the rocker pair and I’ve got the more studious pair, because I thought, “I’ll get a different pair and maybe she won’t roll her eyes at me so much.” She doesn’t think they’re any better.

Michael: Well, here’s the thing. They do look a little goofy – not necessarily you, but just in general.

Chris: It’s me. It’s okay.

Michael: It might be you. Here’s the thing. Eye strain is a huge problem because we’re all in front of our devices all day long, especially kids. And that was one of my biggest concerns: the blue light effects on sleep. But also, the eye strain is tremendous. And we’re seeing kids needing corrective lenses and reading glasses sooner these days because they spend so much time reading small fonts on a computer screen. So, it actually helps reduce eye strain, which is critical. So, it’s actually a really good, healthy thing to do. And if you get kids doing it early on... My kids take selfies with them on and they share them on Instagram. They’re like, “Look, at what my dad makes me wear. He’s such a goofball.” I’ve got no problems with that because they’re participating in their own health, and that’s really important.

Chris: That is good. My routine is that, at some point after sundown, I'll be like, "Oh, okay," and I'll put those glasses on, just to try to block some of that blue light and encourage the reduction of melatonin, so that I fall asleep sooner and get a good night's rest. The worst case scenario is I don't put them on until I get into bed, and we might watch a show on Netflix or whatever for 30 minutes or an hour. I've never really had difficulty sleeping, but I feel like my quality of sleep has been better since I started wearing them. I feel like I toss and turn less. Not that I did a lot, but I feel like I do it less since I started to use it.

Michael: You probably do. You mentioned something that I want to talk about with everybody out there, which is that you watch television in bed. I'm the only sleep doctor in the universe that says it's okay to watch TV in bed. I'm the only one. And I'm going to tell you why: because most people don't actually watch it, they listen to it. When my wife and I started dating she said to me, "Hey, by the way, one of the things I need to let you know is that I fall asleep with the TV on every night." I was like, "Oh, I'm a sleep doctor. Don't worry about it. I'm going to fix you of that." We've been married for 19 years and the TV is on every single night.

I didn't do such a hot job fixing anything, number one. But number two, she doesn't really watch it. Again, she listens to it. And she's got monkey mind – her wheels are spinning, spinning, spinning all the time. She's always thinking about different things. And so, for her, this is a great distraction for her to not have to think about what's going on in her world, and just listen to an old episode of Seinfeld and fall asleep. For folks out there who are watching TV before they go to bed, 95% of televisions have a timer built into the software. Just turn on the timer for 25 minutes and you're good to go.

Chris: Is your wife kind of like a dolphin?

Michael: Yeah. She is kind of like a dolphin, actually.

Chris: That's really interesting. Let's see. Are there any other habits and/or devices that you think are especially helpful for people?

Michael: I do, actually. There are specialty light bulbs that have filters in them that filter out the blue light. So, if you don't want to look goofy by having those glasses on, I've got a bedside table lamp. And they're only \$20. The company is called Lighting Science Group. If you go to their [website](#), or if you go on my website (TheSleepDoctor.com) and you go into products, you'll see it. I think you can get a discount, actually, on the bulbs themselves. I have them in both of my kids' bedside table lamps, and they don't know the difference. And it filters out the blue light, so I'm in much better shape. I still try to get them to wear the BluBlockers, but kids are kids so it's not always so easy.

I'm also a big fan of sound machines.

Chris: Me too.

Michael: There's a lot of people out there who use them, and they're very, very effective. Sometimes you can just download some sounds to your phone, if you're okay with having your phone in your head while you sleep. Me personally, I don't like my phone anywhere near me when I sleep. I charge it in my office because I'm just not interested in getting phone calls in the middle of the night, or emails, or be tempted to look at it. But you can listen there or you can just get a regular old sound machine.

My favorite on the market is called [Zenenergy](#) from iHome. I worked with them to help them develop the product itself. So, we've got meditations in there – relaxation. We've got special sounds that are conducive to sleep. It's actually pretty cool when you look at the whole technology that goes in behind it. I would say that those are some big things that I've found to be extremely helpful for many of my patients.

Chris: We pretty much blackout our room at night. We use an air purifier that has an audible fan, which is the equivalent of a sound machine.

Michael: Absolutely.

Chris: I have a couple sound machine apps on my phone but I don't know. I've never been crazy about any of the fan sounds that they make. None of them have been quite right. And then, I found one, that really famous sound machine that everybody knows.

Michael: [Marpac](#).

Chris: Yeah. The [Rohm Marpac](#); it's travel sized.

Michael: That thing is awesome. I have one of those in my luggage because I love Marpac. They do great work.

Chris: It's just the perfect fan sound. And it has a couple of settings. Now, I travel with this thing. And it's USB; you charge it up. I think it'll run all night for several nights before you have to recharge it; and it's great. It's called the Rohm, by Marpac. Amazon is where I got it. We have a couple of those now.

Michael: They're awesome. And kids love them.

Chris: Oh, yes. My kids both have the full size Marpac sound machines in their bedroom, and then we pack a few of them when we travel. I love to travel light, but I have all these devices and stuff that I bring with me. It can be a little burdensome, but it's okay.

Michael: Travel is a big deal, and it affects sleep in a lot of different ways. I know you and I were talking before we came on about jet lag. There's actually a

new app that just came out. I want to tell people about it. It's called Timeshifter. If you go to TimeShifter.com, you can download it. I think you get one of the first jet lag prescriptions for free and then, afterwards, it's \$5 or something. What's cool about it is you plug in the time zone you're in, you plug in the time zone that you're going to and what your chronotype is, and it will actually pick out flights that are better for you to sleep on. It's amazing, dude. It will give you light recommendations, food recommendations, exactly what you should do before, during, and after your flight.

The data all comes from NASA and the Space Station. When you're up there on the Space Station, you get a new day about every 90 to 120 minutes because that space station is moving pretty quick. The sun rises and falls quite fast, and so we need those people to be very on, from a circadian perspective. They can get jet lag very easily. And that's a bad thing for them because you don't want to leave the air lock open or something like when you're on the Space Station.

So, we tested it out with them and then we brought it down here. And we used it on Formula One race car drivers because they drive all over the world and they can't even be a second off. If they hesitate the wrong way once because they're tired, it can be a crash, it can be a loss, those types of things. It's a pretty cool app. People should check it out.

Chris: I'm super excited about that. I'm going to download that as soon as we finish this interview, actually. I was in Russia a couple of weeks ago. My wife and I went; I spoke at this event there. And the travel time to get there is about 20 hours. We left early in the morning on a Friday and we got there early in the morning on a Saturday, Russia time. And we got a little sleep on the plane, but not much; more like the equivalent of a nap or two. Of course, we got there in the morning. And the goal is you want to try to stay awake all day, that first day, so that you are just really tired by night fall – which we did. I think we had a little nap in that day, but by the time night rolled around, we were both pretty sleepy and we got in bed.

But little did we know that the sun rises in Moscow, at this time of year, at 3:30_{AM}. And so, at 3:30 in the morning, we were both just blasted awake with the sun. And this room did not have dark curtains. We were like, "What's happening?" Fortunately we both had sleep masks handy from the plane, and we put them on and were able to go back to sleep. That's actually the first time I've ever used a sleep mask – that night. Man, it saved me big time. So, we ended up using them every night in Russia. We went to St. Petersburg about three days later. We spent a few days there, and they're in the middle of what's called White Nights, this time of year, which is like in Alaska. The sun never sets in St. Petersburg. It'll go down where you can't see it – it's past the horizon – but it's still bright outside.

Michael: It's interesting, when you look at the summer solstice – because that's coming up now and that's part of this whole White Nights – the summer solstice is the day of the year where the earth is tilted towards the sun the most, and it's the closest to the sun. And it turns out that our daylight is extended on that day longer than any other day throughout the year. I was actually recently doing an interview talking to people about what you need to do to prepare for the summer solstice for sleep, and the big thing is to get an eye mask. You're dead on, dude. You figured it out before I could even tell you.

Chris: The summer solstice, fun fact, is also my birthday.

Michael: Happy almost birthday.

Chris: One thing that happened to both my wife and I, because we don't use sleep masks normally, is that we both woke up with... You know when you sleep funny on your pillow and you wake-up and you have wrinkles on your face?

Michael: Sure.

Chris: This particular sleep mask left this huge indentation on our faces from where the seam is, because of just sleeping on the side of my head. We both had it on our face for half the day. I mean, it was ridiculous. Is there a particular sleep mask that you like or recommend?

Michael: There is actually. There's a company called [Dream Essentials](#) and they're like the Nordstrom of sleep masks. They've got 30 different ones. And there's a couple of different pieces of technology that can actually be helpful. The flimsy, satiny ones that slide all over your face really aren't that effective. What you want is one that has a Velcro strap, not an elastic strap. Because the elastic will wear out, but the Velcro will fit nicely to your head. You also want one that's raised off of your cheekbones and has something underneath your eyes. Because when you're lying down, light comes up underneath and can bother you. You want something that's going to keep the light out of there. Also, I like the ones that have little eye cavities. I don't like when my eyelashes rub up against it. It's very annoying to me. So, given a little bit of height there, they can work very well. But if people check out Dream Essentials, I think they make the best eye masks out there.

Chris: That's great. I mean, the ones I have are all ones that you get for free on a transatlantic flight, or whatever. They get the job done. But I'm sure there's something better – especially for a side sleeper. I don't want to wake-up and go to an interview and have some giant chaffing or whatever on my face.

Michael: Exactly.

Chris: That's great. Hmm, there was something else I was going to ask you about.

Michael: A lot of people like to ask me questions about supplementation and different supplements that people can take that can be helpful for sleep.

Chris: Please.

Michael: That might be a topic that I think some of your listeners could find quite fascinating. When we look at supplementation as a broad category, there are a couple things that people need to know. First of all, magnesium is king when it comes to sleep. Our bodies don't actually produce magnesium, we have to ingest it. Unless you're eating a bushel of kale a day, you're not getting enough magnesium; your body is pretty deficient in it. It turns out there's over 300 different functions that magnesium has in your body; so being deficient in it can really wreak havoc on you.

So, magnesium supplementation daily is a good idea, number one. Now, if you're not a big pill swallower or you want to give magnesium to your children, I have a sneaky but fun way to do that. So, it turns out that bananas are nature's sleeping pill. They're loaded with magnesium. But it turns out that the peel has almost three times the amount of magnesium as the fruit itself. Here's what I have people do: get an organically grown banana, wash the dirt off of it, cut the tip and the stem off, cut it in half, leave the fruit in it and the peel on, drop it in about three cups of boiling water, and boil it until it turns brown. And then, drink the water.

Chris: Wow.

Michael: It's called banana tea. Kids love it. You've got to like bananas though, because it's very banana flavored. But it's loaded with magnesium and a lot of other things that can be very helpful for you. If you're getting tired of chamomile tea and things like that, it's a great substitute. I've got one mom who actually made the banana tea, and then she poured it in popsicle molds and she made popsicles out of it. And she gives it to her kids as a treat before bed, and it helps them sleep. So, it's a really cool, fun idea.

Chris: I can't wait to try that. I have one kid that loves bananas and one kid that cannot stand to be in the room with bananas.

Michael: I've got one of each of those myself.

Chris: I've never even seen anything like it, but she just has this repulsion to bananas. But anyway, that's great.

Michael: So, magnesium is big.

Chris: Now, in terms of the supplementation, is it better to take it with dinner, near bed time?

Michael: With magnesium it is. It's definitely better to take it later in the day, unless you're taking a magnesium complex that has other things in it – like vitamin B or things like that. Vitamin B affects sleep quite a bit, by the way, and should be taken in the morning. A lot of people get really energetic from vitamin B, so you should take your B in the morning. And if your magnesium is with vitamin B, go ahead and take it in the morning. But generally speaking, you should take it at night.

Another big thing are your omegas. There's a lot of data to now show that omega 3s are very, very helpful for sleep. Most of us don't eat enough fish, which is where we would get those omegas. So, one of the things I'm talking about with people constantly is omega 3 supplementation. Talk with your doctor to find out what you personally might need. I actually take a full gram a day. That's just me. I'm a little overboard on it, but I like the effects that omegas have on cognitive function for me, and so that's why I take that level of them.

The other thing is vitamin D – another big, big, big one, especially for folks who don't get a lot of sunlight. Vitamin D helps regulate your circadian cycle. I take between 1,000-5,000 units per day.

Chris: What about melatonin? I don't regularly take it, although there is some interesting research on melatonin supplementation and improved cancer survival, which I came across recently researching for my book. It basically indicated that 20 milligrams a day, which is a lot, for cancer patients was indicated to improve survival. Now, I've never taken it, but when we were in Russia in this apartment we stayed at, we were totally jacked up – jet lag and everything else. And they had left us a bottle of melatonin by the bed. So, my wife and I both would take it before bed; it was just five milligrams. That seemed to help a lot, too.

Michael: It does. The first thing that people have to realize is melatonin is a hormone. So, you wouldn't just wander down to the local health food store and buy testosterone or estrogen; but yet melatonin is readily available. The appropriate dose, it turns out, is between .5-1.5 milligrams for an adult to reach plasma concentration levels. Here's what's interesting: almost 95% of melatonin is sold in an over-dosage format. So, most people are taking far more than they actually require.

Now, cancer is a completely different topic area. If you are going through that, absolutely talk with your doctor because there is some really good data about high, high dosages and cancer survival. Definitely talk with your doctor about that. I'm not a cancer expert. I do know a lot about melatonin and I know that those higher dosages work quite well there. The problem for high dosage melatonin, just to make everybody aware, is it's actually a contraceptive at high dosages. So, it's birth control. Believe

it or not, it's actually used as birth control in several countries in Europe, and by prescription only, as a matter of fact.

Chris: Wow.

Michael: It's not something to trifle with. You need to be super careful about melatonin in children. So, my big warning for people is that there are almost no children out there who have a melatonin deficiency. Kids don't need to be taking pills to go to sleep. That's my general rule. Now, are there instances where we should take issue with that rule? Of course. Specifically, with kids who are on the autism spectrum, we know that they actually do very, very well with three, five, and in some cases ten milligrams of melatonin in the evenings. We're not 100% sure why that's the case, but we do see that in those group of kids, it can be very effective. But generally speaking, melatonin is not something that I recommend for children.

Chris: In terms of my personal melatonin usage now, after the Russia experience – please tell me if you don't think this is a good idea – but my thought is, "I'm going to travel with melatonin now," especially if I'm crossing time zones.

Michael: Yeah.

Chris: Whatever bottle we had, the five milligram dose, maybe that was too much. But just to take it before bed when I travel.

Michael: Here's what I'll tell you. The best place to buy melatonin, that I found, is at Trader Joe's. Their house brand is 500 micrograms, which is a half of a milligram, which is the correct dose. And it's a chewable. So, grab it and throw it in your suitcase, along with your sound machine. But here's the thing: melatonin is not a sleeping pill. It's not a sleep initiator; it's a sleep regulator.

So, melatonin should actually be taken between 60-90 minutes before you want to go to bed in your destination. I use it for jet lag every time I travel. If I go through more than three time zones, I'm going to take melatonin 90 minutes before bed. And then, I'll use bright light therapy in the morning when I wake-up, to turn that melatonin faucet off. I've been able to reduce my jet lag pretty dramatically.

As a funny story, I have a patient who's a Saudi Arabian princess and she flies over from Saudi to Los Angeles, which is where I'm based, a couple times a year. And her jet lag was terrible. She was crossing 14 time zones, and her jet lag was 7-8 days long, which is, believe it or not, fast for that many time zones. Normally, it takes the human body one day per time zone to adjust. But it was killing her because, by the time she was finally acclimated, she was ready to leave. Using melatonin, this light therapy, a little bit of caffeine, and some napping, we were able to

reduce her jet lag down to approximately one day. That jet lag app is based on a lot of the theory that we were using then and can be helpful for that, as well.

Chris: That's amazing. When you travel, do you just take half a milligram?

Michael: I take half a milligram, approximately 60-90 minutes before bed. If you're doing a melatonin spray, you can actually take it much closer to bedtime because it doesn't take as long for it to get into your system because it's sublingual.

Chris: That makes sense. Man, this has been great; such good advice. I love it. I know my audience is going to love it, too.

Is there anything specific related to sleep, melatonin, and cancer that you would like to add?

Michael: First of all, generally speaking, one of the things that people out there should know is that the data has now become very clear that the more sleep deprived you are, the faster cancer cells multiply. That is a fact, at this point. Sleep turns out to be one of the best things that you can do, if you've been diagnosed with cancer because it allows your body to heal. Remember, sleep is healing. That's really what it's doing for our bodies. So, getting more sleep and better quality sleep is always going to be helpful.

The second thing that's really interesting is that cancer actually works on its own circadian rhythm. The disease itself has a 24-hour cycle. And we've now learned that administration of chemotherapy, at particular times in that circadian cycle, can actually be even more effective and you can use less chemo. Guys, less poison in our bodies and it's more effective. I mean, it doesn't get any better than that. Those are two big things that have come out of the research in the last four or five years that I think are important for people to know and understand. Get your sleep, don't be sleep deprived, and understand the circadian rhythmicity. And if you have to have chemo, talk with your doctor about whether there a way for you to do it on a circadian cycle. In the places like MD Anderson and Sloan Kettering they're starting to institute this now.

Chris: That's good. I've seen some of those studies and I thought that was fascinating about timing chemo doses with the patient's circadian cycle, and how they determine an optimal time to give it to them – it might be late afternoon, or it might be before bed, or whatever. And apparently there are different times in the day when the cancer is more sensitive to chemotherapy. Unfortunately, this is not widespread practice yet.

Michael: No, it's not. And people who are sleep deprived also have a greater tendency to get cancer. That's another interesting fact.

- Chris: Like shift workers.
- Michael: Like shift workers, exactly. The three big cancers that we see that are most related to sleep deprivation turn out to be prostate cancer, colorectal cancer, and breast cancer. Those are the big three in cancer, anyway. I can't hope enough for people out there to take sleep seriously when it comes to our overall health, especially if you've got something like cancer going on as an issue. It really turns out to be important.
- Chris: You mentioned that study earlier, which I think is the same study I read. Or if it's not, it's one that is almost identical to the study I read. They took people out into the woods for a week. They tracked their sleep cycles before they took them out. They measured their body's production of melatonin – the onset and the offset. And they found, within about a week, they started getting sleepy within an hour of sundown; the melatonin production started much earlier. Then it stopped right after sunrise. So, all of their bodies shifted to be in-tune with the cycle of the sun and, as a result, they produced more melatonin per day. Melatonin is a powerful anti-cancer hormone. So, generally speaking, the more melatonin you can produce at night, the better off you're going to be.
- Michael: Absolutely. Most people don't know this, but melatonin is not only produced by the pineal gland in the brain. Almost 80% of our melatonin is actually produced in our gut. Gut health turns out to be super, duper important as an anti-cancer, and even for folks who have cancer. So, really understanding your microbiome and getting healthy bacteria in there is going to be very helpful.
- Chris: Are there particular bacteria probiotics and/or foods that contribute to healthy gut bacteria that contributes to melatonin production that you know of?
- Michael: I don't know of any, per se. But I would have to believe that there are. That's a very specific line of research. But if I had to guess, I would say that the answer is yes, there are certain probiotics that can be quite helpful in your melatonin production and, therefore, in your sleep. I just don't know them.
- Chris: That's great. Dr. Breus, thank you so much. This has been so fun, so interesting. I'm super excited to share it. Where can people find you?
- Michael: I'm super easy to find on the Internet. It's [TheSleepDoctor.com](https://www.drsleepdoctor.com). You can't forget that. I'm the same on [Facebook](https://www.facebook.com/drsleepdoctor), [Twitter](https://twitter.com/drsleepdoctor), and [Instagram](https://www.instagram.com/drsleepdoctor); it's just The Sleep Doctor. If you want to take the quiz and learn more about your chronotypes, or pick up my book, you can go to [ThePowerofWhenQuiz.com](https://www.thepowerofwhenquiz.com) and check it out.
- Chris: Awesome. Thanks again. This has been really fun. Hey, everybody. Thanks for watching, thanks for listening. Please like and share this

interview. I know it's going to help a lot of people. And I'll see you guys on the next one. Thanks again!

Michael: Thank you.

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