Introduction to Sleep Doctor Michael Bruce

I am so excited! Today is my distinct honor and pleasure to welcome the sleep doctor. Doctor Michael Bruce, international Bestselling author I've been following his work for years.

I've recently become friends with him. Friends with you, Michael, and so I thank you so much for joining us. The one and only doctor Michael Bruce, thank you for being here.

Thank you, Doctor Love I appreciate it. I've been following your work for a while, and I'm glad that we have this opportunity to work together. And I think it's really cool because your audience, which has been learning more about brain health and what happens as we age and all of those things.

Sleep turns out to be one of those fundamental aspects that I think they will have an interest in. I know you agree with me on that point, and so I think I'm excited to have this conversation because, I'm curious to see where it's going to go.

I think if you think all the listeners are going to have some fun, so much fun stuff at your at your talk at eudaimonia, where, where we got to meet in person.

I have pages and pages of notes I tried to give you recorded to say I came to do some short content, but it was all so good. I ended up recording almost the whole thing.

I said, well, this is in short form content. I got the whole lecture here. So for those of you who want shortcuts, I want you to know that if you're having trouble sleeping right.

Doctor Bruce's previous book, The Power of Win, is it's an international bestseller. It'll help tell you when you want to sleep. I recently found that on my parents bookshelf, which I was so delighted to see.

They know I had it. I used to figure out when I sleep, can we start? Can we start there, Doctor Bruce? So people don't know when to fall asleep. Especially with, you know, I have a bright light in front of me.

It's it's 6 p.m. now. It's kind of dark outside. People. People are staying up playing video games, watching television on their iPads. Yeah, it it's hard to understand when we should go to sleep, because the natural light is no longer the same influence in our lives that it used to be.

And so, you've come up through the research you cover of the really, really helpful that's helped you identify who they are, what their genotype is, and when they need to fall asleep.

Can can you walk people through that? Sure, sure, sure. So, so I'd like what I like to do is tell you the story of the patient that I had that kind of spawned this whole idea for me about 15 years ago.

So I had a patient come in and insomnia patient. And to be honest with you, I failed. I mean, when I say I failed, I failed. I've been working with her for three months.

We tried cognitive behavioral therapy. We. I talked, worked with her physician. We tried sleeping pills, we tried combinations, we tried supplementation.

Nothing. I mean, nothing was working. And so when I have those kind of cases, I bring them in free of charge. And I just interview them for about an hour and a half, because clearly I've missed some integral component here or some detailed that I really need to get my hands on and about, I don't know.

45 minutes into the conversation, she turned to me. This is when I was practicing on the East Coast when I lived in Georgia, she said, you know, doctor Bruce, if I just lived in California, everything would be fine.

And I was like, excuse me, what do you mean by that? And she said, well, you know, California, they go to work three hours later than us. And, and if I could just sleep in, like if I didn't have to wake up at 630 and I could sleep until 930 and I could work not, you know, till five, but let's say till seven.

She was like, my world would be fantastic. And I was, I turned down, I was like, why don't you do that? And she said, well, got to be honest with you.

I'm, I'm, I'm at on the waiver. She called them waivers at work, which meant she was about to be fired. She'd been falling asleep at, at her desk. Her work product had been awful.

Falling asleep at meetings was a real issue. And so I said, well, would your boss let you come in late and leave late? And she's like, honestly, doctor praise, like, I'm pretty sure I'm getting fired.

This was like on a Friday. So I said, hey, can I call him on Monday and see what's going on? Said, sure. So I called him up and, I told him who I was, what I wanted to do, and he said, look, here's, here's the problem.

She's a mess. He said, I don't care what happens. But in two out in, you can let her come in two hours later and, leave two hours later. But on Friday, she's fired.

I was like, oh my God, great. No pressure. Right? And so, I, I did my thing with her. I had her sleep, then talk with her husband, talk with her family, had her sleep in by two hours.

So she wasn't up at 630. She's waking up at 830. I had to stay at work. She stopped work, not at 530, but at 730. And then when she got home, we kind of cleared it with the family.

And I call her boss on Friday. And the very first words out of his mouth were, I have three more employees I want you to talk to, which was interesting, Hey, hey.

Right. So I was like, okay, I must be on to something here. And so I really started to think about these. I this idea called chronotype. So now I want to be super duper clear.

I did not discover chrono types. Prototypes have been around, identified at least since the early 70s. When somebody came up with a morning this evening, this questionnaire that's been around forever and ever.

And to be clear, you you all have heard about this idea of prototypes. You might not have heard of the term, but you've definitely heard of some of the vocabulary that comes with it.

If anybody out there has ever been called an early bird or a night owl, those are prototypes so that we're right. That's from, I don't know, the Latin words from Chronos, which I think I guess, which means time. Is that right?

And the types of of timing.

Chronotypes and Genetic Sleep Timing

So it's timing type like what is your timing type I believe is that's kind of where it all comes from. And what's interesting about these prototypes is they're genetic.

So you don't get to choose. Right. So a lot of people came to me like I'm an early bird. I know what it's like. Well, actually, I just looked at your 23 and me data or your Ancestry.com data.

I can show you where you're not an early bird. Really? There's a specific gene or set of genes that absolutely there is. So if you if you look on the human genome.

So number one, to be clear, there are 74 different markers throughout the human genome that will affect your circadian rhythms. That's what we're talking about here is circadian rhythms markers that affect your circadian rhythm.

But there's one main grouping and that's called the PR three area. And so what we know is when certain DNA building blocks in this PR three area are flip flopped in the opposite direction, you're a night owl.

When they're flipped in a different direction, you're an early bird. This is genetics, okay? You don't get to change it. You're born with it. Okay. So what's cool about this is once you identify that area as an adult, it actually tells you what your built in sleep schedule is.

So this is where it got really exciting. And so we I created a quiz. So if people go to Chrono quiz.com you can take a quiz. It takes about 4 or 5 minutes.

And at the end of the day, I know people are going to going to click out and do this right now. Can you spell it again? C h r o n o q uic.com chrono quiz.com.

But I'm sure that's not. And so what's cool about it is you can take the quiz 3 or 4 minutes later you will end up in one of four categories. Now people might be saying, wait a second, I've heard of early birds, I've heard of night owls.

He's got two more categories. What's this guy talking about? So what I'm talking about is, believe it or not, there actually has always been a third category.

They've been early birds, there have been night owls, and then there are people in the middle. And for some reason, researchers called them hummingbirds.

I don't know why. It seems really stupid. I can't come up with a good reason for it. But just to be clear, those were the three birds. Now, here's the problem with three birds.

Okay? Gotcha. So so here's the problem. The patient that I was telling you about, she didn't fit into any of those categories. She actually had an irregular sleep schedule where sometimes she was a night owl, sometimes she was an early bird.

It was a mess. Right? But we figured it out by moving her schedule around during that one week, and now we were able to start adapting and doing some different things.

So what I discovered was a fourth chronotype. Okay, so the fourth chronotype actually is one that's related to anxiety. So I called them. So by the way I changed the names.

So you'll look like they're cool. They're mammals. Right. Well and that's what I did was because I'm not a bird I'm a mammal. Right. And so I said to myself, like, come on, I want to identify with this animal.

Now, you'll appreciate this. I wanted to choose an animal that actually represented the circadian cycle, right of that of that particular category. Here's the problem.

You want to you want to choose an animal. That's very inspiring. Okay. Nobody it turns out nobody wants to be a porcupine. You know, nobody wants to be a radical, right?

Like a raccoon, a baboon. No, nobody wants to be any one of those. So I had to find animals that fit the prototypical profile and were inspirational. So early birds turned into lions, right?

Because who wouldn't want to be the king or queen of the jungle every single day? Absolutely right. And remember, lions are the ones who usually go and they forage early.

They usually hunt before dawn. So they really do follow this, this, this category. The middle. What is the middle? Lions are the ones that are doing the hunting.

The male lions are really, really lazy. The women lions are doing all the work. The men kind of kind of lay around. You're you're getting that. You're noticing a few characteristics that are also true in humans.

So focus on the middle right instead of hummingbirds I call them bears. So they basically run off of what's called a solar cycle. I'm going to explain the biology behind all of this in just a second.

The night people are wolves, right? We know wolves are night creatures. They hunt in packs at night. Right. So I want to be super duper clear. So far I haven't told anybody anything that they didn't already know.

Right? Early birds, night owls, people in the middle. And to be factual, when you go all the way back to like caveman cave woman days. Right. And you start to look at all of that, guess what?

Who were the lions? Well, they were the hunters, right? Because they could get up early, go to their kill, whatever. Who were the bears? Well, those are the people that tended the village, and they built the buildings and they kind of did all that stuff because bears love a 9 to 5 schedule.

Who were the guards at night? Wolf? Those were the wolves. They were up anyway. Give them a spear. Have them stand around. Right. Like, might as well do something with yourself.

So again, nothing new until we get to this new category called dolphins. So the reason I chose dolphins is because dolphins sleep uni hemispheric, so half of their brain is asleep while the other half is awake looking for predators because, you know, they're swimming the whole time.

And I don't like that represented my insomniacs who have a lot of anxiety. And that's really what this category came down to, is people with this genetic makeup have a tremendous amount of anxiety, specifically when it comes to sleep.

So once I was able to identify the four categories, then we started to have some fun and to be honest with you, Robert, when I first did this, I thought I was just going to be like getting people their sleep schedule because that's I mean, I'm a sleep doctor, right?

I was like, okay, if it's genetic, we can figure it out. Let's do this. I discovered literally over 250 studies that were done on chrono types that had nothing to do with sleep.

Things like what's the best time of day for a night owl to exercise? Never thought about that, right? What's the best time of day for, a lion to eat a high fat, high caloric meal, right?

Never thought about that. And so all of a sudden, I start getting all this research and I'm like, Holy shit, this is like the the absolute unlock. This is like the cheat code of all cheat codes.

It's unbelievable. Pardon my interruption, but one of my favorite parts of your book. I was reading this, when I was home at my parents house for Thanksgiving.

Was. When's the best time to have sex? I thought, that is the number one chapter that this is. This is really. This is really helpful. Maybe I should dog year this or just leave this out for my for my parents.

Do I put them so brilliant. And you made it very, very clear. You said listen, you want to have sex when your sex drive is high, which for most of us speaking is in the morning when our testosterone is high.

I have a boy that's really smart. Most of us do it out of convenience when we're both in bed and we might. That might have fewer clothes on which that night, which is.

And you. You said sex is way too important. Lovemaking is way too important to just leave it to convenience. This is an important part of being human, not to mention the necessary act to continue the species. Plus, it's one of the most wonderful things people can express between loved ones.

You might want to put this at a good time slot. It's if we put work in a good time slot, why not lovemaking? I thought that was absolutely brilliant and so and so, and that turned out to be the most popular chapter in the book.

Surprise, surprise. But we even had chapters on so. So this one was really interesting. So just to take a little piece for a second, there's a chapter on there on when to talk to your children.

Okay. And and so I had this experience with my daughter. So my daughter, when I was writing this book, she was I think she was like 16, 17 years old, so high school.

Right. And, and I was in charge of mornings and waking the kids up, which is never a good idea in high school. Okay? Nobody ever wants to wake up in high school, and I would walk in in her room in the morning and I'd say, Carson, rise and shine, you know, what have you got on the plate today?

And she would be like, dad, leave me alone. Right? Like that was a grunt, like barely audible. We're coming out of her right? If I went into her room at 2:00 in the afternoon when I knew her chronotype, because she was a night owl, would have her be alert and aware.

I walk into her room and I say, Carson, what do you have on your plate? And I have an hour and a half long conversation with my daughter, and there's nothing more important than an hour and a half long conversation with my daughter.

That's what's so cool about this, is you figure out people's timing and then you know when they're available to you, right? Then they then you know when they're going to be receptive to things, whatever it happens to be.

It can be emotional stuff, like how was your relationship? Or it can be biology. When do you want to have sex? Like, what's cool about this thing is it's actually tracking what your internal hormonal cycle looks like and being able to put you in a category.

So that way it starts to make a little bit of sense and so that was the power of when. And it turned out to be a great book. 17 languages, 27 countries, touring the world, teaching people about that.

And my, my new book has books. You can tell. You told me before we start, we start here. How many books internationally did you sell? Or so this. Oh, 125,000 125,000 books.

That's that's a lot of books to to hit the New York Times in the, in the US, you just need 5 or 10,000. The first week. So you content you did that over a couple years internationally.

That's wonderful. But to be fair, I didn't make the New York Times list because we didn't all happen in the first week. It took a little while for people to start taking the quiz and getting used to it.

But to be honest with you, I love the fact that they do and we've helped so many people. It's just it's just kind of a cool, fun thing, you know? I took the quiz.

No less than five times, so I kept on wanting to be, I wanted to be a wolf. I wanted to be at night because I, I'd stay up late, and I thought it was cool to be up at night.

I said, it keeps on saying I'm a bear. This thing's wrong. I'm going to take it again. Maybe a tweak, this move. Maybe I say, I do this. I started like tweaking my answers a little bit more, trying to favor the wolf, but it was always bear.

I thought, can this be right? This is so strange. And then you said, look, if you're a bear, congratulations. That

means life is easier. Life is designed for you.

I wish I was a better I, and I thought, maybe I'm not going to fight this too much anymore. Maybe the quiz is right. Because no matter how I change my answers, it still comes out.

Bears. So I'm gonna I'm going to go with this. Yeah. And what's cool about it is once you learn what your partner is or your father or your mother or your children are, you can start to really understand.

Now, here's one of the concepts that's important that I actually bring forward in my new book, sleep, drink, breathe, which is a lot of people don't know what their chronotype is, so they're going to bed at the wrong time.

Right. And that's really how our whole conversation started, which is what time should people be going to bed? It's variable based on your chronotype.

A lot of people don't understand that. And so it it becomes a very interesting play because once you put somebody into a category, then you can actually give them some Guideposts and say, okay, look, genetically speaking, here's what we think is, is your range for sleep.

Let's start you over there and let's figure it out and lock and load you in okay. Now we're going to do that the same thing for hydration. Then we're going to lock and load you in there.

So it's like once you learn this chronotype it gives you so much insight into everything. By the way anybody out there that's listening? I had one, friend of mine, actually, Robert, you probably know him, Dave Astbury.

He actually prototyped his entire company, which was called bulletproof. So he actually had every single employee take the quiz. And then on their nametags, they had to have their chronotype on there.

And then they schedule meetings based on prototypes. Right. Because here's the thing. If you're a wolf like me and somebody tells you that you've got an 8 a.m.

meeting, what, are you kidding me? I mean, I might physically show up on my brain. Certainly not going to be there. Right. And so that was one of the things that we were trying to capture.

And in the new book, sleep, drink, breathe, what we've been able to do is condense down a lot of that information. So number one, the prototype stuff is amazing.

And and you'll get some of that in the new book as well. But what I've discovered is there are some very simple things that people are doing wrong with their sleep, but also in their hydration and in their breathing.

And so a lot of people have been to me, like Michael, you wrote this really cool prototype book, like, why are you writing a book about things we already do, like breathing and drinking and sleeping like, don't we already do those correctly?

And that's kind of the big discovery is if we tweak a few things, dude, we can make our bodies do so many better things than they already do. So that's what the book's about.

And what's the what's the what was your work is so foundational to human health. Because if you don't sleep, if you don't sleep, you die. If you don't sleep, you're not going to form the all cause mortality goes up.

I mean, whether you're going to fight if you don't. I forget what the data is from the United Kingdom. But big sleep study those who sleep less than 5 or 6 hours have increased of all cause mortality compared to those who sleep seven hours or more.

And it's everything. It's not only diseases, but it's also get murdered, right? You're gonna make bad decisions in the wrong street corner at the wrong time, doing stupid stuff.

People fall off a ladder. You know, I curse out the wrong person getting a car accident. So many problems happen when you don't sleep. Well, just decision making goes down, and then, you know, sleep, drink, breathe.

The Power of When and Personalized Timing

Most people aren't sleeping correctly. Most people aren't drinking either the right amount of water or at the right time in the right way, which you discussed.

But also they're also drinking the wrong water. I mean, right now in the United States, we have oh, I say in our rainwater, if you're not drinking reverse osmosis or distilled water, you're likely poisoning yourself and then breathing.

Doctor Andrew Wyeth said, if you could choose one thing, one thing that affected our health the most, it would probably be the way that we breathe. We're not breathing deeply enough.

And when you breathe deeply, you're actually nourishing your whole brain and body. Oh, I, I couldn't agree more. I mean, at the end of the day, it's it's fascinating.

I'll tell you some things I learned about the drinking that I never knew. Right. So hydration. I've been a runner most of my life and I've been a gym guy.

And so I've always enjoyed working out. So I've always had to pay attention, right, to hydration, you know, nutrition just to make sure I had enough fuel.

Things like that. And here's what I noticed happen. I did this and I don't do this anymore. But I noticed this at the gym. So I walk over to like, the water bottle filling station.

You know, there's like a water fountain, whatever. And here's what somebody is invariably doing. They pulled off their water and they do this and they just like pound like half their water bottle or their full water bottle, and then they bring it back and they get more. Right.

And so I am the pain in the ass that turns to people and say, hey, you should sip, not gulp. And here's the response that I get every single time. I'm just trying to get it in.

And then my response is, it's not going in. It's going through. Okay. Let me explain. When you're dehydrated, your body is like a kitchen sponge. So, you know, when you wake up in the morning and you walk out to the kitchen and there's this kind of rectangle that's out there that's usually hard as a rock.

I mean, you could beat nails with that type of thing. And if you put it under the faucet and you open the faucet up completely and all the water hits the spot, this hard sponge, it doesn't absorb it, it goes flying off of it.

Right? But if you only open up the handle a little bit and you start dripping the water on it like a sip versus a gulp, right? Then the sponge start to absorb it forms.

Now you have a useful tool. Okay, so when you're sitting, when you're working out, it's really good to be gently drinking on, like in between every set and things like that.

You would be surprised how much easier and better it is, and you don't actually have to drink as much water when you're sipping versus gulping, because it's actually getting absorbed.

So that's that. I mean, that's something that we're really not or you're really not taught. And certainly when I played sports in high school, in college, we weren't taught how to drink.

And we also weren't taught what things we should be drinking, should be adding electrolytes to our water. Should we drink? Yes. So I did a whole section in sleep, drink, breathe on what are called, water accelerators.

Right. So, these are powders that you can put into your water that is supposed to help with absorption of your water. So let me be clear. Most of them are salt.

Okay? So just number one, look at the ingredient profile. Because as an example, if you pull one out and you dump it in, it could be almost 1000mg of salt, which could be a lot for somebody, especially somebody who might have hypertension or heart disease or might be a little bit on the older side.

So these high what we call hydration multipliers or hydration accelerators, we have to be careful I like them. But here's how I like to utilize them. If I'm going to go on a hike like a three hour hike, I'll use one net, right?

Or if I'm going to do like if I'm doing my short run during the week. But I have my long run on Saturdays. I'll throw one in my water bottle on Saturdays, right?

So when I know I'm going to have an extended version of what my normal activity level is, that's when a hydration multiplier could make a lot of sense for me, but I have to be cognizant that day in particular to not add salt to my food and to make sure that I don't eat things like, you know, salty foods, because too much salt in the system really keeps the water in.

And then you have a problem. I also want to double tap on a point that you made a second ago, which is the quality of the water is so important. In the book, we actually give the website where you can punch in your zip code and you can find out you can get a water table report of the water that is coming through your pipes.

If you do it, don't let your jaw drop because you're going to see some crazy shit in your water, okay? Literally shit in your water. Okay? Do you remember the news reports that came out 5 or 10 years ago that talked about prescription drugs in our water?

Absolutely. We what happens is, is, you know, people flush their prescription drugs or they pee them out, right? We excrete them in the toilet. Either pills go in there or the urine goes in there and the water filtration system doesn't take it all out.

It stays in the water. And so we're drinking, you know, some some women's birth control pills, happy water. Probably not a really good idea. And some people have the wrong idea about this. I shared this with my friends.

I was the best man at my friend's wedding shows with his parents, and she said, oh, I already take that drug, so I'm not worried about that. Said, no, it doesn't matter that you already take some of the drugs there in your water. That's not the idea.

The idea is that there are some drugs in your water that you probably don't want, that you don't want the baby next door to have. And then there are not only that, not only that is, we really don't know what these micro doses of these medications, after they've actually been fully metabolized through somebody else's system, would do to your system, because basically what's happening is they ingest the pill, the pill goes through their body, then it is excreted.

And so it's not the same thing that comes out is when in number one, so is that really good for people? I'm pretty sure it's not. That's why your body treated it to begin with. Right.

And so it's not I'm a big fan of and I and I also like to, what you said about the double Oz osmosis and and figuring that out. Now, I want to be fair.

There's some people out there who might not be able to afford one of those types of water filtration systems. So in the book, we actually go through a lot of very affordable, like even a Britta pitcher with a filter in it is better than no filter at all.

And quite honestly, I keep a Britta pitcher in my in my frigerator, and I fill it every single morning, and I make sure I drain it once a day, drinking from it myself.

And then I know I'm getting the amount of water that I'm looking for. I'm getting the quality of water I'm looking for. Also, in the book, I go into the differences between distilled spring mineral, what is fluoride and why is it in the water and why should we get it out and all of these other issues.

So I love that you do that. When I was in grad school at university of Texas, I was a big crusader against, getting fluoride out of the water. I met with city council, spoke to city council.

We had worldline experts, Doctor Paul Cornette come in and talk about it. Yeah. And people people laughed at us and and and and then I did did work in policy school and they're like, Robert's crazy.

He's a conspiracy theorist with fluoride in the water. I said, look, just look at the science. Right? I'm right about this. The science shows this is not a good idea.

It's it's dangerous to children's IQ. It reduces IQ in, large studies in China where, I think where they look at population studies that reduce reduces IQ.

It's bad for the pineal gland. It gets gets in the teeth and bones. Only half of it gets excreted, stays in the body. This is a really big deal. And Robert Kennedy addresses this.

But yeah. And this has been going on for since the, since the 50s almost. And then something before I'd started to be put in the water in like the late 40s, early 50s or so and, and I think originally it was all for tooth decay.

I think that was kind of the big thing was, you know, we're going to help people's teeth. And, you know, I just think, I think it turned out to be not such a great idea.

So I again, I think people should drink filtered water. They should know the source of their water. Right. So what is mineral water? It's actually got to have minerals in it.

And by the way, I give a recipe in the book, you can create your own mineral water. It's actually what is your recipe? Because I add a ton of minerals to my eye.

So I get I get reverse osmosis water from Costco delivered, and then I add a bunch of minerals to it. And so what do you what is your recipe? Do we go for a gallon?

So what I do for people is I give a general and then they can add to it. So the general is probably what you already do, which is either distilled water or I like there's I like Green Mountain mineral water because it's, it's kind of a good base to start.

And then I'll add Himalayan salt and some lemon zest to that. And that's usually a good place for me to start. I also personally, there's a group out of Arkansas, a couple of doctors called the mortars, and they have these trace minerals.

So that makes my mineral water really easy because I just put it in and we're good to go. So I like I like doing it that way. We've got a couple of different, ways that you can do it in the book.

And I think it's, I think it's worthwhile. Like if you don't have a big budget, that's okay. Right. Like, don't feel like you can't drink good water because water is fundamental, right?

Like you can go about two days without water and then it is bad like it is a bad scene. Very quickly. And it is hard to recover from it. So do you like do you like adding magnesium or selenium or full back acid or potassium or these things to to your just to what I try.

So one of the things that I try to be careful with is and actually this is a good way to open up the discussion on supplementation anyway. So I have some interesting theories on supplementation.

So my theory is very straightforward which is I like to do bloodwork. So I want to see what's going on in your blood. And if you're deficient in something then let's add it to your water or add it to your supplementation routine for sleep, which is obviously my big area, I really look at four different things.

Well, really three different things. I look at iron, I look at magnesium, and I look at vitamin D, those are the three biggies. I look at melatonin. But melatonin is a much more difficult test to have done.

It's a saliva test. You have to take four samples. You got to send it off. It's a pain in the ass. So it's hard to figure out melatonin as easily as you might want.

But those three are good. Because here's my thought is I want to fix the deficiencies in this unit in my body first. Like, I'm pretty sure that my body doesn't have a deficiency in ashwagandha, you know what I'm saying?

Like, I'm pretty sure it doesn't have an efficiency in valerian, right?

Hydration, Water Quality, and Mineral Water

It could have a deficiency in calcium or potassium or things like that, which is some of the things we're talking about. And so if I can get my profile, then you can actually make your mineral water to fit your profile of deficiencies.

And so that would be my recommendation. Usually. Yeah. So, we were just at a, at a conference where, it was sponsored by a new company called function. Function health.

Yeah, yeah. Documents company. I know, Mark. Doctor. Mark Hyman who, who's had a function at the Cleveland Clinic. I was just thinking recently, someone I saw someone who made a video kind of attacking Mark Hyman in science.

I thought you're attacking 15 or 16 time New York Times bestselling author and head of functional medicine, the Cleveland Clinic. Good luck. Yeah, you better have something really, really important to say, because people and the scientific community have agreed to what Mark Hyman says is pretty important.

So you attacking him on on some study that he's published, that's that's a strange thing to do anyway. Well, this is a well, you can do that. Just as an aside is there's a lot of people out there who are trying to make a career out of trying to poke holes in somebody else's career.

And we see this happen a lot. And and here's what I'll tell you. I know Mark personally. I know his science. He's a good doctor. He knows what he is doing.

He is the last thing in the world he wants to do is hurt somebody. And so he is hyper, attentional to the details, understanding side effects, understanding what's real and understanding what's not real.

I mean, again, I know the guy personally. And I just would tell you that I think he's got high integrity. I think he's really, you know, he is trying to create an entire new field of medicine called functional medicine, which, by the way, we should all be participating in because we go from our pediatrician to our internist to our gerontologist.

And to be clear, you know, we're we're dealing with Western medicine here. I mean, it's fine for acute care and disease, but there's no prevention, right?

That's what national medicine is all about. It's about prevention. It's about thinking forward. It's about probiotics, prebiotics, understanding what our body really requires.

So and also that's part of the reason I wrote the book is I feel like, you know, this is a great place to start as well. So like, let's say, you know, you listen to our podcast here or you listen to Mark Hyman's podcast and you're like, shit, it sounds like I need to get my ass in gear.

What do I do? Where do I start? It's so confusing. There's just so much stuff out there. That's what sleep, drink, breathe was designed to do was to give you a start line.

Right. And so if you can work on your sleep, work on your hydration and work on your breathing, everything else gets better. Like almost automatically. It's kind of cool.

And so that's really what we came to is we're trying to give people kind of like, get rid of the confusion and get you there. Now you have a great breathing pattern that you, taught at at this.

Yeah. At this we also we can help somewhere that I was actually using late last night this morning to try to fall back to sleep. And so I'd love for you to share that that breathing pattern that's both really relaxing, but also can help people fall back to sleep.

And it's it's not only just relaxing, but also it's nourishing to the brain because it's breathing deeply and getting lots of oxygen to our brain, into our body.

Absolutely. So this is going to take me about three minutes to describe this whole thing. So I'm just going to warn everybody now okay. So sit back, grab a cup of coffee or tea.

And now let me let me rip into it. So so here's the deal is everybody's got a core body temperature. And that core body temperature rises rises, rises until about 1030 at night.

And when it hits that peak at 1030 at night, it begins to drop. That drop is actually a signal to your brain to release melatonin. Remember, melatonin is that key that starts the engine for sleep.

So at the end of the day, you've got to have the core body temperature drop. Well guess what your core body temperature keeps dropping dropping dropping.

And then it hits a bottom. And it has to go north. It has to heat your body up. Otherwise you go hypothermic and you die. Okay, guess what? It happens between 1 and 3:00 in the morning.

Usually. And every single human on earth wakes up between 1 and 3 in the morning when your core body temperature, because it automatically puts you into a lighter stage of sleep and oftentimes an awakening.

Here's the difference is 95% of people roll over and fall back to sleep. The rest of us don't. And that's the situation. Right. And so that's really my area of specialty.

That's really the area that I look to. And breathing helps tremendously during this particular situation. Let me explain. So there's three things that I have to have you do.

So number one the first thing I have to people do I tell them is don't go pee. Yes, you heard it here. Do not go to the bathroom. Now I want to be super clear why I've been here to other people.

Coach. People. Have you just wake up. Just go to the bathroom. I hear it so often. And I used to do that. And boy, it just totally destroyed my sleep.

Almost any time I go up, get up and use the bathroom, it was so much harder to fall asleep. It was an hour later before I can fall back to sleep. It was terrible and it wasn't even like you empty your whole bladder.

It wasn't like it was a big deal. Most people will tell me when they wake up the middle of the night, they'll be like, well, maybe I have to go. I'll go try.

That is a terrible idea. Let me explain why. In order to enter into a state of unconsciousness, you need a heart rate of 60 or below. Okay. When you go from a lying position to a seated position to a standing position and you walk across the room, guess what?

You just jacked your heart rate straight up so you don't want to do that if you don't have to. I want to be very, very clear to all of our listeners. If you've got a P, please go P, okay.

But if you don't really have to, don't get out of bed. Number two problem looking at the clock now, I wish I could tell you that nobody was going to look at the clock if I tell them not to look at the clock, but everybody looks at the clock, and then they instantly do the mental math and now they're pissed off, right?

So they're like, it's 330 in the morning, I've got to get up at six. Sleep, sleep, sleep. Right. And they try to force themselves to sleep. Now, if you think about it just from an energy perspective, your energy's going in the wrong direction, right?

You're trying to force yourself to sleep. That's requiring energy. You want to relax yourself to sleep, right? You don't want to add because when you're adding energy, you're adding heart rate.

And remember we want a heart rate of 60 or below. So if you can don't look at the clock. Now to be fair, I'm not so stupid as to think nobody's going to look at the clock.

Everybody's going to look at the clock. And if you have to actually go to the bathroom, you're going to have to get up and pee. Okay, Michael, I'm back in bed now.

What do I do? This is where the breathing technique that you mentioned really comes into play. It's called four, seven, eight breathing. This was developed not by me, but by Doctor Andrew, while, who is a Harvard trained, one of the very first holistic, naturalistic doctors got a great clinic down in, Arizona, I believe Tucson.

And, this is a breathing technique, believe it or not, that he was teaching the Navy Seals. So if you're a Navy Seal and you're a sniper and you're shooting downrange, if your heart is beating too fast, you can actually change the trajectory of the bullet.

So he had to teach them through breathing to lower their heart rate so they could fire in between heartbeats. Now, that's a long story. But the moral of the story is he taught everybody how to lower their heart rate to 60 or below, which is our magic number.

Also, this technique requires you to count in your head, which means you cannot think right. The second biggest problem, other than going to the bathroom in the middle of the night, is what my wife calls monkey mind, which is when you get back in bed and you start thinking about something like your kid or your career or the news, and you just spin it up, your heart rate is up and now you're screwed, right?

So four, seven, eight breathing is exactly what it sounds like. You slowly breathe in for a count of four. You hold for a count of seven, and you breathe out for a count of eight.

Let me explain the physiology and why it works. Most people are shallow breathers, meaning they don't use the entire lung. They. Write. They don't get there.

And in fact, what that requires is it makes your heart beat twice as fast because you're only using half of your lung. The lung was originally developed in order to be extended, and then that air goes all over the body.

When you're only using half your lung, you literally have to breathe twice as much to do it. So when you slowly breathe in for a count of four, you're adding some air onto some basically carbon dioxide that's been laying dormant in your lung for a little while.

When you hold it for seven, you burn through whatever's left, and then when you expel for eight, you really dump all of that excess carbon dioxide. Now you're so out of breath because you've expelled so much air.

You slowly breathe in for a count of four, and now you've got a fully extended lung, and your heart rate starts to go down. Within ten cycles, your heart rate should be at around 60.

Now, a couple of quick caveats here. While you're trying this in the middle of the night, I lost count in the middle of the night. So you have to do ten cycles of this or more in order to get to a state of 60.

So here's what I do is I would lay my hands next to my body in like, small unclench, like kind of clenched fists. And then what I would do is when I get through one, like I do for seven eight, I'd stick out a finger.

Then I do four, seven, eight, stick out a second finger, and then four, seven, eight and stick out a third finger. And by the time I have all ten fingers, I know I've gone through it because it's hard for me to count in my head for seven, eight, follow the breathing, and then count how many of those cycles I was doing.

Does that make sense? So this breathing technique is not only about relaxing, which is necessary for sleep, but is also about lowering the heart rate down to 60 or below so that we can fall asleep and distracting our brain by counting.

So we can't think of stuff that stresses us out. So it's kind of like a double whammy, right? That's why I like it so much. Once you get through 10 to 12 cycles of that, what you can do is just kind of slowly go back into your normal breathing.

Now, for some of you, that might not that might not help. You might get more relaxed, but maybe you don't sleep. That's okay. Then you move into my second new way of counting sheep, which is counting backwards from 300 by threes.

It is mathematically so complicated you cannot think of anything else, and it is so damn boring. You're done. Right? So once I get you there. Now I have to distract you long enough while I keep you there.

And then the natural sleep process can be able to take over. And this isn't the only breathing technique that we talk about in the book. We talk about breathing techniques for energy, for relaxation, all the above.

So I'd love I'd love for you to lead us in this exercise. But first, have you ever watched Rick and Morty the show Rick and Morty? Okay, have you seen the one about, the Night Person? No.

Oh my gosh. If we're if we're in the same place, we we can watch it, or I can, I can tell you. So it's this great episode where they program their unconscious sleeping person to do activities for them during the day.

But at the very beginning of the episode, we'll cut this in the podcast, you see. So there's a Counting Sheep app. And so she's on his her phone counting sheep on her phone.

And I feel like this is the worst way to fall because you got the blue light, right? It's actually activating the mouth. It's like, this is the absolute worst thing.

It'd be better to watch a Die Hard on your phone would be do this counting Sheep app. It's hilarious. Would you please walk us through. Oh, so when we cut this, let's let's add that little clip in from, from Rick and Morty to show the Counting Sheep app. So.

So let's come back. So, Doctor Bruce, can you walk us through that, that breathing pattern so we could experience it firsthand and embody. It's that way, that Trump can do it tonight when they go to bed.

Absolutely. So let's all do it together. Is everybody ready? So what I want you to do is sit in a chair, have both feet planted on the ground, if you can, if you will put your hands maybe, down by your sides in small, not tight clenched fists, because we're going to be able to go through this and you'll understand how it works.

I'm going to walk you through the first five cycles right now. Everybody ready and with your eyes closed. And by the way, you're breathing in through your nose and out through your nose.

Okay. So slowly breathe in to three, four. Hold to three, 4567 out. 2345678. So I just did one cycle for everybody to

kind of get a feel for it. Now here's a caveat is some people find it hard to hold their breath for seven seconds.

And some people find it hard to expel a breath for eight seconds. So what you can do and we're going to try this one. Two is we're going to do four, five, six breathing as a starter for you to get used to it.

And I recommend that you try this during the daytime. So let's try that first. And then we'll show you how you graduate to 478. Everybody ready. Slowly breathe into three four.

Hold to 345. Out to 3456. Make sense. So either 478. Isn't it relaxing. It's okay. So actually to let everybody know on 478 breathing right before I go on stage, if you ever see me I'm sitting off on the side of the stage.

I'm doing four, seven, eight breathing. Right. That's what I do before big anxiety moments or just big exciting moments. I always do this for seven eight breathing because it helps me become present and it resets me very, very quickly.

So you can do it during the day or at night. Excellent. So that's it's just a really powerful tool. I love that so much. It's free and it reduces stress, which is so good for health, for sleep, for the brain, for reducing dementia, and also empowering us for difficult situations, whether it's stepping on stage or giving a presentation or having a difficult conversation with a loved one.

Yeah. So I want to get your thoughts on I've been taking notes. I have all kinds of fun questions to ask you. I've been I find it amazing. It's just amazing.

That's we start school so early. Oh. It's ridiculous. It is ridiculous. Almost. It's almost like we had a bunch of monkeys make a decision by throwing darts at a board and choosing the earliest possible time.

I'll tell you how and why it works that way. So I've looked into this. So I actually got involved with a school start time company that was working towards lobbying to change school start times.

So it all actually comes down to the bus schedule. So parents could not all parents couldn't bring their children to school at particular times. And so what happened was they would put all of their kids out the bus comes by, you shove all kids on there of all ages, and they eventually make it to school that way.

When it first started, what actually we had was we had a round of bussing that would take the young kids and then a later bus that would take the older kids, because the old idea, it's a much better system. Right.

And so it's really messed up because it's all based around bussing these days. You can actually change it around. And there are some schools that have taken that into account, but it is a monumental task in order to do that.

But if you look at the data, there was a great study that was done at the University of Minnesota where they change school start times by one hour. Later, and every single child in their first period didn't matter what their age was, went up a full letter grade when they came in an hour later, that crazy gosh.

Imagine going from a B student to an A student, right? B student is I guess it's kind of average, right? Going from average to a high performer. Oh my goodness.

I think I think it's in the book Nurture Shock. I don't know if you've read that one. They report a bunch of interesting data. Their book reported that there was a there's a town where they, change start times from 8 to 10 a.m.

for students. And what they found was that SAT scores went up 100 points, which is not surprising in a state school. Yeah, just to state school. Harvard. Right.

Or a very good school and, and a good school like 100 substantial. And then number two car accidents were cut in half. Yep. Car accidents a team were cut in half.

So better drivers of safer drivers, higher S. A. T. scores. And all they did was just allow, two hours of sleep, in the morning. Amazing. And what's interesting about that is, you know, don't forget that teenagers are very young drivers.

Like, they don't have a lot of experience driving. Right? They're 15, 16 years old. They've been driving for a year. For two years. Right. And on top of that, we having them drive to school while sleepy, right.

So they're not very experienced. We're going to put them into a vehicle that could kill themselves or somebody else. And by the way, they're going to be really tired.

And oh by the way, they're probably taking their little brother or little sister with them. Right. And they're trying to look cool. I was definitely trying to look cool when I was driving. Oh, I had to have had my loud music, and I had to be sitting in a certain posture and had to do it fast.

Oh, by the way, my kids are not learn to drive at 16. They're learning like lit, as if we were on a farm at 1213. If you're old enough to like, sit behind the wheel, you're gonna learn how to drive and get those skills before your hormones kick in and you start to local like, absolutely.

They're learning that skill early. I hear you. And so, yeah. What can what can parents do? I mean, it's the old is the only answer homeschool or just.

I mean, if I had a kid right now in high school, I'll just write a note to every single parent, say, look or every single teacher look. My kids come in and, like, do what you want.

Their their get their get their sleep because that's the right thing to do if your school is going to start early, that's just dumb. And so yeah, my kid will do well on your test.

Breathing Techniques for Sleep and Relaxation

Right. Well, we try to do is we try to talk to schools about maybe like having physical education as the first thing in the morning versus, a high level academic, like a math or something like that, where kids are going to get penalized for making small mistakes because they're tired.

Or maybe a humanities course where there's more discussion, going on than actual, you know, having to take notes and things like that there. I think there are some adaptations and it would be great.

But at the end of the day, you know, kids are adaptive. They will adapt to the system and they'll do okay. And we've all kind of gone through it, but it would be ideal if we could get them sleeping at their right time specifically for their chronotype.

So just so that folks understand if you're a teenager, you're a night owl, absolutely guaranteed. But you grow out of that into what would be considered your adult chronotype.

And then go forward about 40 years, maybe hit your mid 50s, early 60s and then your chronotype changes again. And so everybody actually goes through almost all of the chrono types, which is kind of the interesting part.

And so, you mentioned something interesting about hydration. And so have you been to Burning Man? I've never been, you know, that cool. I have a lot of friends who have gone, and I'm kind of thinking about putting it on my bucket list, but I'm not really sure.

I'm kind of the guy who would want to like helicopter in, have a shower, have a place, go after a few experiences, and then helicopter out. I tell you, I'm there for a full three weeks.

I show up a week early to build. I'm there for the week. The brand that I stay late to clean up, I love it, I don't want to leave. I'm one of the last people who leaves.

I just love it so much. It's been my greatest source of my evolution and transformation. Like that. Oh that's cool. I've learned more about myself and about others and about, as they say, apply.

Playa will provide like provides. And then you got people like Elon Musk and, Jeff Bezos who come to Burning Man to get to get inspired for, for their transformational businesses.

But Burning Man is a place where sleep is really hard. Yeah, because it's loud. It's loud at night. I mean, there's stuff to do at night because you want to stay up.

And then number two, it's hot. And so it's hard to sleep past ten unless you have AC. So that's a problem. And then, and then some people take mind altering substances which can affect sleep.

And then then the hydration is an issue at Burning Man two, because if you just drink water, especially during build, when we're out in the sun, we're basically a bunch of us go there and build.

We don't get paid any money. We pay extra money to go there and build our camp out in the hot. I mean, I'm swinging a pickax into the into the ground.

I'm thinking, man, I paid for this. I enjoy this pickax and this is great fun. Would sweat up a storm. And so the hydration is such an issue there too.

And these fundamental things are really challenging out there. And so I'd love to get your thoughts on, just a little, little selfish request in difficult situations like this where it's hot and where it's distracting at night, where it's loud.

And then we want to stay up all night, and I'm able to do Burning Man for three weeks because I prioritize my sleep. I say, like, I'm going to go to bed at 5 a.m.

before the sunrise, and I'm going to sleep until 11. I'm going to get a good six hours, and that's enough to last me during the week of the burn. And I'm at and, if I do that, I drink enough water.

I'm actually, I can make it through there and be it and be rather rational after it. After seven days of being out there in the middle of the desert. Yeah. So what we see with, with extreme conditions, right, is it's all about prep, right?

It's all about your preparation and your knowledge base. Right. And so like the the areas that you're talking about for me, for Burning Man, that I would have a big interested in is so like number one, one of the things that we could do is we could use melatonin and we could shift your clock so that you would not be tired until 6 a.m.

and then you would be extremely tired at six and like a shift worker would be. And then we would use, like, an eye mask of special Imax that would be very inclusive.

We would have special, bows, another company called Oslo. I have no relationship with them, but they have special sleep buds that you can put in your ears and wear while you sleep.

That will drown it. Bose headphones. It made them originally, and now a new company picked them up called Oslo. I believe you might have to look them up.

And then from a heat perspective, here's what I have my, patients do who get warm but don't have air conditioning is I have them get a water bottle and freeze it, and then they put it into a tube sock, and then they put one on either hip when they're in bed.

And so the tube socket so that when as the, as the frozen bottle melts, the condensation on the side, you just don't want to have a wet spot in your bed.

So, but it's like having your own little mini air conditioning and it will actually help you sleep longer because it helps keep your body cooler longer.

And so I have people do that. It's like a little mini air conditioning. Oh that's fantastic. Oh, that's going to be so great for for Burning Man. Now, we're talking about talking about sleep.

I know mattresses are a big question, so I'd love to get your expert opinion on what should what what would be good for a regular person to look into a mattress.

Do they want these temperature changing mattresses? This is something new in my experience. In the last 510 years, mattresses that change temperature monitor temperature.

We'll get to stiffness. Do we want what do we need? Because I for one, for some reason I spend, you know, a third of my life on my mattress, but I don't want to spend the amount of time that I do I money on my mattress as I do with my car, even though I spend more on that.

You could certainly say that affects my life more than my car. And so I think if people are just pricing mattresses, the value of a mattress in their mind because it's so important.

Yeah. Well, I would argue it's the it's probably the most important piece of furniture that you're going to buy, right? You spend more time on it than you do your couch or your La-Z-Boy or, you know, even your car, though.

So I tell people that, that it's worth putting a few dollars into a bed. Now, I want to be honest with you on my website, the Sleep doctor.com. We have over 150 mattress reviews.

So what we did was we kind of took all the hard work out for people, and we brought them in and we actually did lab tests on them. So we did the spring test. We did that.

There's like a ton of different tests that we do so that we can understand, like what are the physical properties of this unit and how do they match with the human companion.

And so we've created of like a sleep commercials where they have they're dropping bowling balls and they're spilling glasses of wine, or they have the pillow and they're dropping a, they're dropping a cannon ball on the pillow fluff.

And like, you know, the bag isn't getting crushed. I mean, these commercials for sleep with the pillows, it matches. They're just they're just great. They're great.

And there are a lot of fun. We don't do the bowling ball drop. We have things that are a little bit more on the science side of things, but we do have an understanding of like tensile strength and springs and how those work.

And so the good news is, is that there are different mattresses for different types of people and different types of sleepers. So as an example, if you're a larger person, then you're going to have to have a particular matches.

It's going to have specialized steel springs. Because if you're let's say you're 300 pounds or 350 pounds, normal mattress isn't going to be supportive for you, and it's going to run out in terms of its support fairly quickly.

So you might need a specialized, steel framed mattress if, for example, if you're, older, let's say you're 55 or 60, you may want to have increased edge support on your mattress, because a lot of, people who are my age, when we get up in the morning, we sit on the edge of our bed for a few minutes to just kind of wake up and kind of get the day going.

If you don't have edge support, you fall right off. And now you're on the floor, right? Looking at low back pain, there are certain mattresses that are better for low back pain than others looking at sleep position there.

For example, if you're a stomach sleeper, there are certain beds I would never want you to sleep on. But if you were a back sleeper, those beds might be just fine on.

So I've heard that it's best to be in the fetal position for your back, that that's actually it, and it's best for that for breathing. What is your thought on sleeping position?

Should people try to be in a specific position for optimal sleep? So here's what I would tell you is the best position in terms of overall is actually on your back.

Because when you displace weight across the skeletal frame, you can do it evenly when you're lying on your back. Right? When you're on your side, all of your weight is being pushed to one side or to the other side, and that's causing the capillaries to become crushed, what we call capillary crush.

And then you get the tingly feeling that it makes you rotate to the other side. And then you're kind of doing the back and forth thing most of the night.

Now the fetal position is interesting, because what it actually does is when people are kind of bringing themselves into this fetal position, what they're doing is they're actually opening up their spine.

So many people don't know this, but while you're walking around during the day, the constant pounding is actually squeezing the discs in between your vertebrae.

And when you lie in the fetal position with your back arched, you're actually opening up the discs and they become rehydrated. So that's really one of the best aspects of being a side sleeper.

I will tell you, though, that, you want to sleep more on your left side than on your right side. I try to remember it as right is wrong. So because if you sleep on your right side, you actually will crush, the, opening to your stomach.

And that can cause that, that, sphincter to open. And that's where acid can come into your, stomach, and then you get gastroesophageal reflux, things like that.

Also, for women who are pregnant, they don't want to sleep on that side because it limits, food to the fetus, things of that nature. So it's worth, reading an article.

I've got a lot of articles about sleep position and kind of what are the best ones. And to be fair, if you have low back pain, you should never sleep on your stomach.

So so back generally is is good for just displacing the weight. And then if you do if you have, if you have back pain sleeping on your, on your left side in the fetal position is good.

Because I've heard about some things about elevating the bed. I've heard both that I actually don't sleep with the pillow, because I've trained myself to not see you. The pillow.

Because I read that it's better to have a certain angle. And so what I've heard, it's good to have the top of the bed higher so your head is higher. That that is good. For some reason. I've also heard you.

If you have your feet higher, actually more blood drinks to your head and kind of it increases the lymphatic system, which we haven't talked about yet, the lymphatic system.

So there's yeah. So there's no data that I've seen that suggests that raising your feet increases the lymphatic, system. But raising your feet does, especially for women, because their pelvises are tilted slightly in order to be able to give birth.

It does when you when they raise their feet up, it actually tilts their pelvis and it pulls all the strain off their lower back. So for women who've got low back pain, I like them to put a pillow underneath their knees while they're lying on their back, which helps rotate that pelvis upwards and makes for a much more comfortable, situation by raising the head of the bed.

What you're basically doing is kind of pulling gravity out of the equation. There's pros and there's cons to raising the head of the bed. You might have seen they have adjustable bases now where they can raise the head, raised the foot, you know, do all these kind of fun things.

I think those are good for people who are back sleepers. But for example, if you're a side sleeper and you're and you're head of your bed is raised like it's not going to go well, you know, like you're going to be crunched, like it's not going to feel good.

So I tell people all the time that you need to sleep in a position that you can fall asleep in pain free and wake up from pain free. If you can't do that, you need to look at changing your sleep position into something where you can.

That's a that's a really good, good marker there. So I interrupted you about, mattresses. So in your in your in your experience with the data, there's no, cognitive enhancing benefit to either raising the head or raising the feet of of the bed or raising the head or feet of the man.

I just haven't seen any data. I don't know if it's there or not. I just I've never looked it up and I haven't seen any data that would suggest that when you're looking at something called the lymphatic system, which is kind of the waste management system of the brain.

So it's kind of comes in and it pulls out all the proteins, something called beta amyloid and tau, which are very important for, avoiding things like Alzheimer's disease.

Stage three for sleep becomes super duper important because that's where the majority of the lymphatic system is working. What there is data to suggest is that, if somebody does have the head of their bed raised, I, I want to say I think there was one study that showed that it increased the stage three for sleep in some people, but I'm not positive on that one.

So I'm going to I'm going to have to go back and look it up. But that would make intuitive sense. So if you, if you had to raise the head of your bed, which helped improve stage three for sleep, which then helped improve the lymphatic system, then I would say, okay, raising the head of the bed helps with the comforting system.

And so can we talk a little bit about, sleep memory and Alzheimer's disease? Yeah. And so in my in my experience, I'm a neuroscientist. I specialize in helping people prevent Alzheimer's disease.

And so sleep is one of the biggest factors that a lot of people don't. If there's just this one night of bad sleep, you're memories impaired. If you're if chronic bad sleep, you got chronic brain fog.

And now that's a major risk factor for Alzheimer's disease. And now you're in trouble. Right. And so can you talk about the role of sleep and memory formation?

Memory consolidation, and why this is so important for having a healthy brain as we age? Absolutely. So number one, you may know more about this area a little bit than I do.

So you can feel free to correct me if I'm if I've got my anatomy or any of my theories wrong. But you know, when we're looking at memory consolidation, it's really about REM sleep.

So there is some pre, memory consolidation that occurs in stage three and stage four, which is basically where your brain is kind of sorting through all the data and deciding what to keep and what not to keep.

And then during REM sleep, it takes the data that it's decided to keep, and it basically moves it from your short term memory to your long term memory.

Right. And so there's an encoding process that occurs. So basically you have data that's coming in through your eyes, through your ears, through your nose and through your mouth.

And your brain has got to do something with all this information for retrieval later on. So it creates an organizational substructure like a filing cabinet in your head.

And so it knows where to kind of put that information. And that's where the memory consolidation comes in. And that information can come in. And so that way you can go back and retrieve it.

Now, to be fair, dreaming is really, what we think a lot of this process is. This consolidation of memory seems to create this crazy movie in your brain.

That is pretty interesting at times. Sometimes you remember it and sometimes you don't. I really also think of this, this, process as what I call emotional metabolism.

So I, you know, there's a lot of stuff that goes on during the day, and emotionally it has to get somewhere. It has to be processed, it has to be turned into memorial, functions.

And so that occurs during REM sleep. And so that also is what I believe dreaming and dreams are. Is this memory consolidation. And then the emotional metabolism of what the, emotions were within the memory is what's going on.

It's usually projected into the back of your forehead like a dream. And so why is sleep deprivation chronic sleep deprivation or, chronic trouble sleeping, you know, can you help you understand why this is such a major risk factor for Alzheimer's disease and other, other forms of dementia?

Yeah. I mean, I think the biggest one I think I would probably go back to, well, I think there's a few. So number one, when you're sleep deprived, you're not getting either the quantity or the quality of the sleep that you're looking for.

And when we talk about sleep quality, we're talking about stages three and four and we're talking about REM sleep. Those are the biggies that we really want to kind of see happen.

And so I go back to the lymphatic system again because I feel like that is probably the biggest influencer that sleep has on Alzheimer's. And once again, just for folks edification, the Glenn Photic system is like a garbage truck that comes into your brain at night and pulls something called beta amyloid and tau out of there.

To allow for more of it to be formed. Now, you might be wondering, well, why do I have beta amyloid and tau in my brain to begin with? Well, that happens when you think and when you make decisions and things like that.

This is a this is a what we call it's not the best term, but they call it brain dirt. Right. So it's the it's the aftermath of what happens when you're thinking a lot.

These proteins begin to form. And what's interesting is, is if the proteins don't get cleared out, they like to wrap around the nerves. And that's called Alzheimer's disease.

And that's what we want to try to avoid. So by pulling the proteins out we have a much greater likelihood.

Sleep, Memory, and Alzheimeru2019s Risk

Now I want to add one caveat to this explanation, which a lot of listeners are not going to enjoy, but they need to understand it is the truth is that alcohol basically destroys stage three for sleep, which is where this protein elimination occurs.

So you can avoid all timers. So for folks who are listening, drinking alcohol, especially before bed, is absolutely, positively a terrible idea, even though it makes you feel sleepy.

And even though a lot of people use alcohol as their sleep aid, believe it or not, number one sleep aid in the world. It's horrible for your sleep. Now, how much alcohol and how close?

So can we do a glass of wine at dinner? By the way, I don't drink and I love what you're saying. I wish people would go alcohol free. First of all, they're it's there's so many negatives to alcohol.

It's actually quite expensive. And there's there's it. Being sober feel so much better, for my brain and for my body because now I can work after dinner.

I like to work after dinner, drinking wine at dinner just so my productivity can impair my sleep. I was a less nice person when I don't sleep. So my my quality of life, my quality of work has skyrocketed since, letting go of alcohol basically.

Completely. And so is how much alcohol? Yeah, I haven't, but this, so I have a method. So what I tell people is you can have it's all about the amount and how close the lights out.

So the more you have and the closer the lights out, the worse it is. So it takes the average human one hour to digest one alcoholic beverage. Here's an interesting little fact.

That number changes to four hours when you're asleep. Okay, so when you go to bed drunk, that's one of the reasons why a lot of people wake up and still feel buzzed after 6 or 7 hours, because their entire metabolic process is slowing down.

But let's go back. So what I tell people to do is let's say that your bedtime is 11:00, okay? So and you're sitting down to have dinner at, let's say, 630.

So 630, you can have your first glass of wine. Now have a glass of water. After that you want to intersperse water in between your wine. Now it's about let's say 645 7:00.

The meal is served. Have your second glass of wine. Have a second glass of water. Now you stop. You wait three hours, which. So it should be about 730.

So three hours from that is 1030. Your normal bedtime is 11. You're good to go. You're not going to have a massive problem with being able to sleep while drunk.

Okay? But this is really only if you got to have alcohol. And I will tell you something, Robert, is that is the biggest negotiating factor that I have with my patients on a regular basis is I'll do anything you want, doctor Bruce. I'll wake up at this time. I'll go to bed at this time.

But don't take away my booze. Right? Is one of the things that I hear on a regular basis. And so I have to educate them. And so what I tell them, as I say, look, let's run the experiment of not drinking for two weeks and let's see if it improves the quality of your sleep.

And then you can go back to drinking whatever you want. I just want to run the experiment to understand what's going on. So I approach it very scientifically.

From a data perspective. One of two things happens. Either they're able to do it and then they say, oh, I didn't realize how much alcohol affected me.

I'm going to really change my ways or they can't do it. And then they have another problem. They have an alcohol problem. Then we start to fix that. Essentially, that's the major sticking point that you have with, patients and clients when I work with patients and clients.

So we have a medical clinic here in Florida where we're we're first in Alzheimer's disease. And part of it's through lifestyle pivots through an FDA approved drug for compassionate use for the treatment of Alzheimer's disease.

Our biggest challenge is food. Our biggest challenge is helping people change their diet. People are very resistant to someone telling them, you can't have this.

So we try to say, look, you can eat whatever you want, but if you don't want Alzheimer's disease, you really don't want to eat this. And so I highly suggest you stop eating this, because this this food's really expensive to your brain, to your health and your quality of life. I can't tell you what to do.

I can usually is that usually, like overprocessed, like ultra processed foods, or is that are those certain foods in particular? It can be ultra processed foods.

Usually people know those are bad for them, but it's oftentimes the things that people think are good for them that aren't. So for example, taking away dairy like cheese or gluten or a bunch of carbs or things like that, people think, well, I think this, this food is healthy for me.

Well, actually, it's no, it, no, it's not, not the way that you're eating it. It's actually spike. But it's so fascinating to me. And then the science on food is so interesting where.

Oh, yeah, carbs spike blood triglycerides, carbs, and spike fat in the blood, whereas fat actually lowers triglycerides. So fish oil will lower your blood triglyceride, which is it's a fat, whereas carbs spike your blood for bus rides.

And so people don't understand that they have high blood triglycerides because they're eat too much carbs. And so just that's just almost any, any tinkering of the diet people are generally pretty resistant to because, you know, I'm dealing with older adults, people are 65 plus.

They've eaten what they've wanted to for most of their lives. Now that they learned that they can't. People people really resist being told what to do.

And they really don't like it when you take away their food, especially when our food is so chemically engineered to be addictive, to be, very tough, very compelling.

But that palatability, it's very it's very hard to, help people steer away from that, that harmful food. Yeah. And I also find one other area, is caffeine.

Is that especially with my older crowd, they're so used to drinking coffee all day, you know, it's just like, yeah, I drink coffee. Oh, how much do you have? Well, I don't know. I've never even counted.

I put on a pot in the morning and and I put on another one in the afternoon. I'm like, oh, God. Right after dinner, I, I'm sipping a cafe latte in the evening.

Right. You're feeling tired, right? Yes. I remember when creamer goes in to see the psychiatrist and, he's like, he's like Elaine's, Elaine's shrink, and he's playing to be her boyfriend.

And he says, would you like something like. Coach? Would you like some drink? Yes, I'll have a decaf cappuccino. And he's like, I don't think we have that drink.

You said, well, that's very peculiar. Why do you find this strange? Well, it's a very popular drink. It's like this is an office, sir. Right. I understand exactly.

So I love caffeine. And then I also like it with my morning cold plunge. I know you're a fan of Cold Plunge. You got a picture of you and your son in the cold blood here.

So the cold plunge. I love the dopamine spike from that. And then when I add in coffee, I am just focused for the first four hours. I don't even need food.

I feel amazing with my morning cold plunge for three for three minutes and then my my cup of my cup or two of organic coffee with some MCT oil. I love that now I come to choose my cut off.

So that's what we need to talk about is what is the cutoff for caffeine. And so when we're talking about, you know, people who are, let's say in their 40s or 50s, then I think 2 p.m.

is probably a good idea because that caffeine has a half life of between 6 and 8 hours. And so if you stop at two, at least half of it is out of your system by ten, which is when most people are kind of going to bed.

However, if you're 65 plus, here's the problem is your metabolism doesn't function like it did when you were younger. And so the half life is actually longer, not shorter, for older people.

And so they need to actually be stopping caffeine earlier. Like more like noon if at all possible. And again, it's just about running the experiment. Right. Is that that's how I, that's how I posed it to people.

As I say, look, I'm more than happy to let you drink as much caffeine as you want, but can we just run the experiment where you stop caffeine by noon every day?

I give you you can have two three cups in the morning if that's really what you want to do. And go for it. Me personally, I drink a half a cup of coffee every single day, right before I either run or spin, or do my cardio.

I, I have a half a cup of black coffee. I usually have it, after I've drank at least 20oz of water and taking my omegas, my vitamin D, my creatine. And I'm ready to go now. Do you like, hydrate before you caffeinate.

I love that phrase. I you've got to hydrate because, well, what people don't realize is sleep in of itself is a dehydrated event, right? You lose almost a full liter of water just from the humidity in your breath.

That's not even like, you know, sweat and oils and things like that coming from your skin. So does that hold true? If we if we mouth tape? So I've been mouth taping for the last two years I love it.

My thought is I'm keeping a lot of the moisture in my body by not exhaling through my mouth. So the greatest likelihood is, yes. But what I will also tell you is people need to be careful with mouth tape and let me explain why.

So for a lot of people out there, their reason their mouth taping is because they're waking up with a dry mouth or something along those lines. What's really going on is they have a lot of nasal congestion.

94% of people will close their mouth once they're asleep. If there's no nasal congestion, that's that's what the data says. And so a lot of people are out there mouth taping.

Here's my biggest issue. If you have undiagnosed sleep apnea, you are screwed. Because basically what you're doing is when you take your mouth, you're completely stopping the symptomatology.

And the disease is just getting worse without you knowing it. So it can be highly problematic. And so the only caution that I have is if you're going to use mouth tape, there's two different things you need to know one, get tested for sleep apnea before you do it.

And number two, there's a special kind of tape. It's a micro pour tape by 3 a.m. and it should go vertically. You should never go horizontal. It can be problematic for all kinds of reasons.

And please don't use something like scotch tape or duct tape or anything like or any masking tape. Terrible idea. You will rip the hair. You'll rip the skin right off your lips.

And it'll be quite painful. And so, you mentioned monitoring sleep devices. So I have an aura ring, and I like looking into. And so. So I noticed you and I aren't doing the conventional on the pointer finger.

I don't like the look of a ring, a ring here, I like it on the middle finger. Maybe I'm not. I'm not trying to pretend that I'm married, so I don't I can't have it on this finger.

So, so the middle finger for, for for the ring. So I this has been really helpful to me just to look at my heart rate, monitor my activity during the day and then see, well, how did I sleep?

I think I slept like this, but what is what is the data show? And I know the data is not not perfect. Is this good enough to to test for sleep apnea? So will this tell someone if they have sleep. It's not.

No. So here's what I can tell you about trackers kind of in general. So number one I wear an aura I like aura I would say that it's probably the most accurate, but this is really the best of the worst.

Okay. Like to be clear, nobody does a good job of this, Aura and Fitbit have done head to head studies and those two appear to be comparable. I personally do not like the whoop strap.

Whoop strap is great if you monitor activity aura is great if you monitor sleep. I feel like those. There's a very big distinction there because aura is a sleep company and, whoop is an activity company.

They just happen to measure what each other is doing. Also, don't don't forget is you never want to look at your pinpoint data with aura or any of the trackers.

Like, I can't count the number of people, dude, that walk up to me say, what does this say? I've got 14 minutes of deep sleep. Michael, what does this mean?

To be clear, it doesn't mean a damn thing. What it means is that your tracker is being consistently inaccurate, right? If it says you're getting 14 minutes of deep sleep every night, we all know that you're not getting 14 minutes of deep sleep.

But for some reason, people are so freaking stupid. They come up to me and they're like, I, what's going on? This is a problem. I'm like, so how much deep sleep and how much REM sleep should we shoot for?

For a healthy adult, that's not the right question. The right question is how much sleep should I get so that I wake up and I feel refreshed so people should not be digging into the numbers because, number one, they don't have the knowledge base to understand what they are.

And number two, they're not getting accurate data. Okay, there isn't any. And especially with this demographic, let me let me tell you about something that not one tracker has done.

And it really pisses me off, is when you're in the sleep laboratory, like if you came into one of my our sleep laboratories when I was practicing, what we would do is, if you are over age 55, we actually have to change the scoring criteria of your waveforms because your brain waves are not as high in amplitude.

So when I was first doing this 25 years ago, all of a sudden we noticed, hey, everybody who's age 55 doesn't have any deep sleep anymore. And then what we realized was, is they actually have deep sleep, but it's harder to identify because the waveforms are so different for older people in deep sleep.

There's not a tracker in the frickin universe that that accommodates for that. I can assure you. And I certainly haven't seen one. And I've asked a bunch of them, they're like, what are you talking about?

Like they don't even know. So when you're talking about people who are in 55 plus and they're using trackers as number one, don't look at your data, only look at it one time a week, okay?

And look for trends. If it says consistently that you're getting 14 minutes of deep sleep, you're not you're fine. If it says 14 minutes one night, 407, the next in 362, the next.

Okay. Then we want to see what's going on on those days. So we're really looking for the delta or the the differentiation from the trend is what we're really trying to look for when we're tracking sleep.

And I want to be also clear about something. Is there some people who should not track their sleep because they get too into the numbers and then they start freaking out about it, and then they're waking up.

They're saying, and they're looking at their aura score in the morning, and they're saying, I feel like I slept great, but I got a 47 that doesn't do anybody any good.

And so how do we want we want to use this to track trends, a trend, a of our of our sleep, of our about over the time that we initiate sleep, in the time that we get out of bed and try to stay consistent in those times.

That and that's why it's it's really helpful. And I like the I like the heart rate to the heart rate before bed is informative to me. Saying, okay, maybe I actually had to wait another 20 minutes to calm the heart down.

I agree, I like the heart rate before bed and then aura also has a nice feature which is called HR v or heart rate variability. And that's also another measure.

That's something that you have to measure at night because you're looking for the very variation between your highest heart rate and your lowest heart rate throughout the day.

That's what heart rate variability means. And so I like that aspect for aura. And and to be fair, I think they're getting better. I think they're trying I know they're everybody's working on the science.

There was actually a different ring company that has just come out with an FDA cleared ring that actually does full nighttime polysomnography that you can actually diagnose sleep apnea, narcolepsy, restless leg syndrome with this ring.

And it literally just came out like three weeks ago. So I would say that the technology is starting to get better and better. So what I guess the main message is hold tight, because the next round of trackers is probably going to be a lot better.

That's good news.

Caffeine, Trackers, and Sleep Supplements

And so before before we go, I'd love to get, You're so good with quick answers. I'd love to get a couple of, of zippy things that we can do. We can, we can use on, on social media.

And let's. I'd love to get those. What questions would be ideal to ask you? So one is what are your top three sleep supplements? People. Just people just like people like pills to solve answers. Yep.

So let's do that one first and then, I think maybe, maybe the biggest mistakes. Oh, so if this is helpful, we can kind of outline what they are. And that way you don't need to unless you already have it.

You already have this answer. And then we can. Okay. And then what are the biggest can we ask, can I ask you, what are the top three mistakes that people are making with their sleep that are really screwing up their sleep?

Yeah, I think that's the right question to ask. Okay. And then do you do you have you have that one already. Of course you go. Yeah. I mean usually when I ask this I have to I have to sit with someone and say, well what are the my top, what are my top supplements for X that I know that I can answer that in 10s.

Excellent. And then what are your, and what is the third rapid fire kind of social media question to be? I think that, How about, well, okay, here's a funny one.

So there was an interesting study that was done looking at mammals. And no mammal can physically urinate longer than 21 seconds. Really? Yes. And so it's a great way to know and understand when you urinate, how full your bladder really was by counting, and what you'll discover is like, if you make it to 11 seconds, then you're like,

oh, okay, that's what it feels like to have half a full bladder.

Or if you make it to 20s, it's like, wow, I really needed to go. And that actually can be super duper helpful. And it's something that once I tell people, they can never seem to be able to forget it.

So what is the question that leads to that? What's the headline question is, is there any information that you could give us, Michael, about the length of our pee I had this how about, an easy way to see how hydrated we are is or is that, I can give you a few of those, like, what are what are three easy ways to see how hydrated you are, that three easy ways that number three, number three is number three.

You will not be able to forget, right? Yes. Three easy ways to see how great you are. Number three, to see how hydrated you are. Number three, you'll not be able to forget I might do that one first because that's just top of mind.

And then let's do one more. What else. So three sleep supplements. Three top three sheet mistakes. Three easy. Three easy ways to see how hydrated you are.

Number three, you won't be able to forget. And then at anything else that's. It would be a really good reputation. One on breathing. Okay. What would you like if you wouldn't mind?

I think what I'd like to do is. Okay. Hold on. Oh, yeah. I want to do, shallow, shallow breathing. So the question would be, at what rate? And, like, how should people what is the best way for people to breathe?

That's the question. And then I'll ask about oh no. Like what it. No, that's not a good question. The better question would be what are the three problems that people have with breathing that they don't realize they have?

Is it breathing during sleep or breathing while awake? Both. I'll say breathing while they sleep. That's that's it. That's curious. And they could say this actually applies to both three problems people have breathing while awake.

What after? I want to say that in a in a more elegant way. What are the top three problems? Top three breathing problems. Top three breathing problems.

People have sleeping. Okay, so Lewis and team, this is 123, 124. In the recording, we're going to clip out all these or Pat and team. We're going to clip these out. So we're going to focus on social media.

And then we're going to post you know I want a little clip that says, you know, five by the book on Amazon. You can show a picture of the book in the bottom of the corner.

You'll buy this on Amazon now and have the have the title sleep, drink, Breathe by Doctor Michael Bruce. And so let's have that at the it doesn't need to be the whole video, but you know, the last third of the video, let's make sure that they understand they can get the book and then I'll do a little outro.

If you want to get the book, get it here. So, so all four of these, we're going to post these on social media. And then we're going to link back to his book.

So thanks for you're welcome. Happy to help. Thanks for doing this. This is super fun okay. So number one is the top three phones. So the way I like to do this is I'll just I'm just gonna do a complete video with you that we just snip out like that.

So I'm going to I'm going to I'm going to do the title. Let me introduce you. And then I'm going to ask you the question. And then you're going to answer the question.

And if you can answer the question in approximately 60 to 90s. So you're explaining a little bit about each supplement. Yep. That's usually that's usually a good length.

Okay. Got it. So the top three supplements, top three sleep labs is what we're gonna start with. Okay. The top three

sleep supplements. So I'm here with Doctor Michael Bruce, the sleep doctor, one of the world's leading experts in sleep.

Doctor Bruce, what are your top three sleep supplements? So, believe it or not, my top three sleep supplements are not the ones that you might imagine.

It's vitamin D, iron and magnesium. Let me explain. So before people going out and looking for supplementation, what I like to tell them to do is do some bloodwork and fix your deficiencies first.

So you probably don't have a deficiency in ashwagandha. You probably don't have a deficiency in valerian. But if you have a deficiency in vitamin D, magnesium, or iron, these can affect your sleep in major ways.

Let's break it down. Vitamin D is a circadian pacemaker, which means your circadian rhythms require vitamin D to work. Magnesium actually helps you calm things down at night, and can be extremely helpful in lowering your heart rate.

And iron turns out to be really important, especially as we get older for things like restless leg syndrome and fidgety ness before bed. So if I'm really looking, those are my three big ones.

Fantastic. And so now I'm going to do I'm gonna do a pitch each each each one. The one that might be better than the other. Okay, so Doctor Bruce has a new book coming out.

And so you can get this on Amazon right now it's called sleep drink breathe. Check this out. You're absolutely going to love it. And then I want you. Can I ask you about lion's mane?

I know I asked you a little bit about lion's Mane. Do you have, a strong opinion on Lions Media about the data on sleep on Lion's Mane? Is that a worthwhile question to ask you?

So I'm not super duper familiar with it, but I have read one study that I think said that it promotes REM sleep. If that if memory serves. But I'm not a I'm not a lion's mane expert, so I don't have a lot I to ask you about that because people will be like, well, people are going to ask me, well, well did you ask about Lion's Mane?

Because that's, that's like that's that's my thing. I do know that Lion's mane does appear to help with REM sleep, especially taken in the evening before bed.

So, for folks who are you can ask me about it if you want to. Yeah, I think that'd be great. Okay, so let's do that one. Does lion's mane improve sleep?

I hear it, doctor. Michael Bruce, the sleep doctor, one of the world's leading experts in sleep. Doctor Bruce, a lot of people are struggling with sleep, and they want to know what supplements are effective.

Some people say lion's mane is great. Other people say lion's mane will actually keep them up at night. What is your understanding of the research on lion's Mane and Sleep?

So it's a great question. And and you know, I think about it often, there's a lot of different mushrooms out there. And lion's mane turns out to have a lot of really great properties to it.

What I've learned in the sleep literature is that it appears to accentuate or help REM sleep. I've had at least two patients where we utilize this, and we actually extended the amount of REM sleep that they had.

I think results are gonna vary. So I can't say that it's going to happen that way for everyone. But in my experience, both with patients and in the literature, it appears to be a REM accentuated.

That's so interesting because my experience a lot of other people's experience is that it gives us vivid dreams. We actually have what that would make sense.

Yeah, that's so interesting. That would make perfect sense. Thank you. All right. So next is three easy ways to see if you're dehydrated. Number three is number three.

You won't be able to forget this. Was that the headline? Yep. Three easy ways to see if you're dehydrated. Number three, you will not be able to forget.

All right, let's do that. Three easy ways to see if you're dehydrated. Number three, you will not be able to forget. So I'm here with Doctor Michael Bruce to sleep.

Doctor, one of the world's leading experts in sleep. And your new book is about sleep, hydration and breathing. Hydration is so important for our health and our sleep.

What are these three tricks that you have that people can use to assess how dehydrated they are? So I love this question. It's not it's not something that we think about as much as we should, because a lot of people don't think about, am I thirsty or not?

So here's a few simple things that you can think about. Number one is something called the skin tugger test. This is where you take a little bit of skin and you pull it up and you pinch it, and then when you release it, it should form back to your skin within two seconds.

If it takes longer than two seconds, then you're probably dehydrated. Number two is you really should think about how thirsty you are. A lot of people, they'll get a thirst signal in the back of their of their head, where they'll say to themselves, gosh, I'm a little bit thirsty. And then they push right past it.

So don't avoid the signals in your brain that's telling you, hey, I might need a glass of water. If it's telling you that, then you want to do it. Then here's one that a lot of people don't know about, which I find really interesting is there was a study done that looked at mammals and discovered that no mammal can urinate longer than 21 seconds.

So I have my clients time, their urination, and they can then see how full their bladder really was, because a lot of people will get up in the middle of the night thinking they have to pee, and in fact, they pee for five eight seconds and they realize they could have actually stayed in bed.

So the Austin Powers movie was not, biologically accurate. You actually can't pee for that long. You cannot pee for as long as Austin Powers can be. That is correct.

That is a great piece of biological balance. I will definitely be remembering that one. That's great. Okay, we got two more three problems breathing. Three pros.

What are the top three breathing problems? People have during sleep? Is that right? It's not the way I want to ask that. Yeah, but it's not during sleep.

It's just the top three problems. People have one breathing. So what are the top three problems people have when breathing? Yeah. That they don't know okay.

All right. So this would be the last one on this. The top three breathing problems that people don't know about I'm here with Doctor Michael Bruce, the sleep doctor, one of the world's leading experts on sleep and author of the new book sleep, drink, breathe, available on Amazon right now.

Fantastic book. So, Doctor Michael Bruce, what are these three problems? So people don't know about, that are affecting their breathing? So the biggest one is most people are shallow breathers.

They don't realize it, but they don't actually extend the lung. And therefore it forces their heart to work twice as much. So number one big problem that I see out there is to shallow breathing.

How do you fix that? Make sure you're breathing a little bit deeper. Right. So go ahead and give yourself some time

to breathe in and some time to breathe out the next there.

Another big one is that people have a tendency to be too mouthy. What do I mean by two mouthy mouths were meant for eating. Noses were meant for breathing.

Keep your mouth shut when you breathe. Why? Because you're getting unfiltered air through your mouth. Which means all the particulates, all the bacteria, all the viruses are going straight in.

When you breathe through your nose, got cilia, you've got terminates. You've got all these different things that not only filter your air, but make it warm, which makes it much easier to transport oxygen.

And then the final one is people have a tendency to breathe too high. What do I mean by that? When you ask somebody to do a breath and you say, take a big, deep breath, if when they breathe in, their shoulders rise, that means that they're not actually expanding their lungs.

They're only lifting their shoulders up. What we want with a big, deep breath is for you to breathe wide, not high. So when you take a big, deep breath, you feel your body expand outward, not upward.

Fantastic. So the book is sleep, drink, breathe, available on Amazon right now. He also has another great book that tells you exactly the time that you want to go to sleep, called The Power of.

When I read that one years ago. I love that book, so either one of these books is a great place to start if you want to improve your sleeping and if you want improve your breathing, go with this one.

Thank you so much, Doctor Michael Bruce. Thank you. Which and everybody out there. Sweet dreams.