



**THE MODEL  
HEALTH  
SHOW**

**EPISODE 457**

**Eat These Foods To  
Improve Your Sleep  
Quality**

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**Shawn Stevenson:** Welcome to The Model Health Show, this is fitness and nutrition expert, Shawn Stevenson, and I'm so grateful for you tuning in with me today. On this episode, we're going to be covering the nutrition sleep connection from my new book, *Eat Smarter*, and we're going to dive into how sleep controls your metabolism, how your gut health and microbiome play major roles in regulating your sleep, which crucial sleep regulating nutrients you need to include on a regular basis, and specifically, these are the nutrients that are needed to build your sleep-related hormones and neurotransmitters to make all of the magic happen. You can get the fanciest, pansiest mattress you can ever imagine, the pillow with the most flex and fluffy-ness and shoots out rainbows, whatever it is, you can get all of this fancy stuff, get the black-out curtains. All those things are wonderful, but if you don't have the raw materials to build your sleep-related hormones and neurotransmitters, our sleep is going to continue to suffer, so this is why this is important, and also when identifying these nutrients, what are the best foods to find them in. So we're going to talk about that.

We'll also cover how commonly consumed foodstuffs in addition to those actually damage your sleep quality, plus a whole lot more. And if this is your first time tuning in to the Model Health Show, again, my name is Shawn Stevenson, I'm the author of the USA Today National Bestseller, *Eat Smarter* and the international best-selling book, *Sleep Smarter*. And again, on this episode, we're going to dive into specific foods that we need to be eating on a regular basis to improve our sleep quality. So first things first, we're going to start at the top, and I want to begin with why focusing on good sleep nutrition is so beneficial. When we think about diet and nutrition, here in this culture, it's generally in the context of weight loss and weight management. That's generally what we relate to psychologically, nutrition and diet, but our sleep quality itself is one of the most powerful controllers of our metabolism, specifically in the domain of body weight and metabolism. Researchers at Stanford University found that insufficient sleep can reduce levels of the satiety hormone, leptin, that has big influences on your overall metabolism, and also sleep deficiency increases the level of the hunger hormone, ghrelin. Alright, ghrelin is really the captain of the

team of our hunger-related hormones that drive us to eat more.

So being sleep-deprived suppresses our satiety hormones and increases our hunger hormones, and the researcher discovered that insufficient sleep directly increases our body mass index, alright? It is a one-to-one result. Our sleep is controlling what our metabolism is doing. Now, that's just a little overarching thing, we're going to dive a little bit deeper. A recent study conducted by researchers at the University of Chicago revealed that our fat cells themselves need sleep too, alright, our fat cells need sleep. The study recruited healthy lean test subjects, and each volunteer went through two study conditions. In one part of the study they spent eight and a half hours a night in bed for four consecutive nights. In another part of the study, they spent four and a half hours in bed, so they took away four hours of their sleep for four nights. Food intake in both phases was exactly the same and strictly controlled, alright? They're in a ward study, they're monitoring everything they're eating, the exact same amount of food on the morning after their normal nights of sleep, and on the morning after their four nights of sleep deprivation.

Alright, the morning after the walk of shame. Each volunteer was given an intravenous glucose tolerance test, which measures their total body insulin sensitivity. In addition, the researchers performed a biopsy, removing abdominal fat cells from the volunteers, and they measured how those fat cells specifically responded to the role of insulin, and after four nights of sleep deprivation, their total body insulin response was suppressed, it decreased by an average of 16% plus, and this is the most important part, specifically their fat cells themselves, again, that they took out via biopsy, their fat cells themselves, their insulin sensitivity decreased by 30%. Alright, so what does this mean? First of all, insulin resistance, this lack of insulin sensitivity, a classic sign of insulin resistance is carrying around more abdominal belly fat, but what does this mean specifically for these numbers? This reduction in insulin sensitivity is comparable to the difference between cells from a lean person and cells from someone who is obese, and again, these were lean healthy test subjects who suddenly their fat cells were functioning as if they became obese in four days, just four days of sleep deprivation.

Or another comparison here is somebody without diabetes, that's what their markers look like initially, becoming somebody with diabetes, that's how their fat cells were actually responding as if they had diabetes within four days. Alright, this is remarkable, and this is again, these controlling factors for our

metabolism that is not talked about in different diet programs, it's not talked about the necessity of optimizing our sleep for so many different things that have to do with our health and well-being, and to put the cherry on top. To put the cherry on top, one more study looking at how sleep impacts our body composition, and this one is incredibly eye-opening, and I really helped to push this into the inter-webs because it's so right to the point.

This study was published in the Annals of Internal Medicine and conducted by researchers at the University of Chicago. And they followed overweight but healthy volunteers to study the impact that sleep deprivation has on their metabolism. They put them on a controlled reduced calorie diet again, they're watching and monitoring exactly what they eat, and they allowed them during one phase of the study to get eight and a half hours of sleep, alright, they got eight and a half hours of sleep for 14 days, carefully monitoring what they eat, so that's one phase of the study, alright? Now they keep them on the same exact diet for the next phase of the study, and they sleep deprive them, they pull away three hours of sleep.

So then now they're getting five and a half hours of sleep for 14 days. And they track the results. Now again, they're on the exact same diet, but in one phase they're getting adequate sleep, in another phase, they're being sleep-deprived. After compiling all of the data, they found that when folks were adequately rested, they lost 55% more body fat, eating the exact same diet. The changes were remarkable. And the question is why? How can sleep have such a powerful effect on our body composition and our weight? And a big part of that is that our sleep is a major controller of our hormones, and when we're talking about sleep quality in of itself, the same thing is true, your hormones and neurotransmitters are the chemical messengers sending these metabolic DMs to make all of the magic happen to keep all of the cells in your cellular community that make up your body on the same page.

So clearly, our sleep is a major controller of our metabolism, absolutely. And to optimize our sleep, our nutrition is of the utmost importance. So to see how this interaction between nutrition and sleep actually takes place, look no further than the incredible world of our microbiome. So now we're going to dive in deep, we're going to get up in the guts and take a look at what's happening in relationship to our microbiome and the sleep connection. Your tiny gut bacteria play a gigantic role in regulating your sleep cycles. A recent study published in the journal, Sleep Medicine, discovered that negative changes to your

microbiome can have substantial detrimental effects on the quality of your sleep. Again, negative changes to your microbiome can have substantial detrimental effects to the quality of your sleep, and what's more, the researcher discovered that poor sleep quality can also have detrimental effects on your microbiome. They literally feed into each other and you can get caught in a vicious circle that so many people are experiencing, and they have no idea why. Again, they're getting the fanciest, pansiest mattress, they're getting best pillow, they're getting the heavy blanket. They're getting the blanket that suffocates you. What is it called? What do they call them? Weighted blankets. They're getting the weighted blankets. It makes them feel like they're in the womb again. But it's still not working, alright?

They can't even get smothered to sleep, alright. And shout out to the weighted blankets, I think they're fantastic for some people, but we're not addressing the root cause, what's actually controlling the process of sleep itself, and it has so much to do with our microbiome and our nutrition. Their report demonstrated that as the microbiome is negatively altered, and sleep quality is reduced, there's a direct reduction in our ability to switch between different mental tasks, something called cognitive flexibility, cognitive flexibility, so to make this clear, when our microbiome-sleep connection is disrupted, it damages our sleep and damages our cognitive ability as well. And again, I dive into that in depth, in Eat Smarter, because we're looking at our metabolism, how can we eat to optimize our metabolism, and again, taking people behind the scenes and teaching people how their metabolism actually works, but also what are nutrients, specific foods that improve our cognitive performance, that's what the smarter part of Eat Smarter is really all about.

Now as mentioned to dive in deeper into them guts, to talk about how this actually works. I'm going to read you a powerful tidbit from Eat Smarter. "One of the major reasons that our gut health has such a profound impact on our sleep is due to the sleep-related hormones and neurotransmitters that are produced and or stored in the gut. Take serotonin, for example. Serotonin is well noted to promote positive mental and emotional health, while low levels of serotonin are associated with anxiety and depression, on top of that, serotonin also plays a major part in sexual function, bone health, regulating the movement of your digestive system and sleep quality. A 2007 report found that low levels of serotonin can contribute to insomnia. Serotonin is a potent neurotransmitter with many jobs, and even though it's often associated with things happening in our brains, the vast majority of serotonin is actually located

in our gut. Approximately 90% of the human body's total serotonin is located in the gastrointestinal tract, and scientists at the California Institute of Technology, Caltech reported that there are specific bacteria that interact with the cells in the gut that produce and secrete serotonin for us, these cells called enterochromaffin cells are interacting with your bacteria cells all of the time, and if the North Pole of your microbiome goes south, the only thing coming down your chimney will be a big box of sleep problems.

Not only does serotonin improve sleep on its own accord, one of the most important things your body does with serotonin is use it to make your number one sleep-regulating hormone, melatonin. Yes, melatonin is glorified as a "Sleep hormone," but it's really so much more than that, it's involved in regulating your body circadian timing system, influencing when various hormones are released throughout the day and night, mental energy, digestive function, etcetera, as well as regulating your blood pressure, body temperature, cortisol levels, antioxidant defenses and immune function, saying melatonin is just a sleep hormone is like saying Michael Jordan is just good at putting a ball into a circle.

Now to reiterate and to step away a little bit from the text, melatonin is playing an enormous amount of roles in the human body really regulating what we call this biological clock, and what that means, this is how we're literally synced up with nature, our hormones are getting produced at certain times during the day, neurotransmitters, our digestion, everything about us, every one of our cells has a little biological clock, the circadian rhythm. It sounds kinda a little bit meta and kind of weird or even a little, woo-woo but it's not. This is how we're designed, but the interesting thing about humans is we can pretend we're not a part of nature, alright? We can hide out, we can manufacture at whatever time of the day we want, but the human body is constantly looking to sink itself with the diurnal and nocturnal patterns of the Earth itself, we're connected to it. No matter what. And so when I was in college, I was taught that melatonin really, again, it was a sleep hormone, and also I was taught that melatonin is produced in the pineal gland of the brain, end of story.

Next chapter, turn the page, that was it, very, very rudimentary description of something that is so remarkable. Today we know that melatonin is also synthesized in other cells outside of the pineal cells, such as bone marrow cells, your lymphocytes, and most remarkably cells in the gut. Research published in The World Journal of Gastroenterology revealed that the human digestive tract could contain more than 400 times more melatonin than the pineal gland at any

given time. Do you understand this? I was taught melatonin is produced in the pineal gland, that's what everybody hears. We have 400 times more melatonin in our gut than in our brain. We think that sleep is a head thing, but it has a lot to do with what's happening in our bellies.

Now, to really drive this point home, a new study that I broke down in Eat Smarter cited in Frontiers in Psychiatry, peer-reviewed journal, reported that our microbiome helps to regulate our sleep and mental state through the action of the microbiome gut-brain axis. Your microbiome is at the very root of your sleep wellness, and this leads us to our first list of foods to improve your overall sleep quality, foods that are rich in prebiotic fibers, resistant starch and probiotics. This first list that I want to share with you, it's coming right from the pages of Eat Smarter, are also foods that are rich in potassium, and I did this very specifically because a study cited in the journal Sleep found that potassium can help improve sleep efficiency, meaning that you go through your sleep cycles more effectively.

Alright, it's not necessarily about sleeping a certain amount of hours, it's the quality of that sleeping. Potassium is one of those key drivers, this important electrolyte in optimizing your sleep cycles themselves, and also the researchers found, and again, this was published in the journal Sleep, that potassium helped to reduce wake after sleep onset, so meaning that you wake up less often. Now, when we're talking about potassium and also hitting those categories of resistant starch, probiotics, prebiotic fibers, we got a diversity here. When you think about potassium, a lot of folks think about bananas, alright, "B-A-N-A-N-A as the... Is bananas... "Alright? Bananas are often touted as the best source of potassium, which funny enough, they actually happen to be a very high source of resistant starch that helps to feed our friendly microbes that have a big relationship to regulating our sleep cycles. Alright, resistant starch is something you're going to be hearing a lot more about in the upcoming years. Now, here's the key, there's a certain caveat with this, when the banana is not ripe, when it's a green banana, it's very high in resistant starch, but as it gets more ripe, it goes from a higher starch content to higher sugar content, alright, it's that conversion process, it gets sweeter.

Now, I don't know about you, but I've never had a craving for a green banana. Alright? If I've ever seen anybody just crack open a green banana, I probably thought some weird things about them. Alright? And also that little part of the banana, the little brown part, it's just kind of tastes like real choky and weird,

some people call it the devil's anus, but it's not very... That part as well, we can do without. Alright, green bananas and the devil's anus... Sorry. So the green banana, as it gets more and more ripe, I think where they called it the devil's anus was in Thor Ragnarok as well, like when the... It's like some portal in the sky, but don't quote me on that. Anyways I just had a whole stream of thoughts from that. And shout out to WandaVision, are you checking out WandaVision? That's going down right now. Very strange. But it's the MCU. I trust you guys. I trust you. Alright, so what we can do here is maybe you add a little bit of a green banana to a smoothie, it's going to have benefits for your sleep as far as the potassium is concerned and also has a resistant starch to feed the friendly microbes, or there's even like green banana flour, that again, you want to get high quality organic if you can, that folks are... You could add to smoothies and baked goods and all kinds of creative ways you can add it in, but if you're not into that, there's so many other options.

Okay, so just staying in this lane with potassium as an emphasis and also having some other benefits for our microbes, so a potassium that really supersedes bananas and you can do without the worry about the sugar or the not tastiness of a green banana is avocados. Alright, avocados. A little fun fact, being kind of one of the roots of the word avocado, it means testicle fruit. You didn't hear that from me though. Alright. Grows in trees in pairs, dangle... Never mind. Alright. This has taken a turn, I didn't know we would turn this direction, but again, avocados, great, and actually funny enough, they're great for your reproductive system, many benefits there as well.

So avocados are another great source, plus you're going to get some prebiotic fibers there too, and again, we're going through a list of foods that have proven benefits in improving our sleep quality, so we've got avocados, green leafy vegetables, incredible source of potassium, and also we're getting some of these prebiotic fibers, alright? In this category of prebiotic fibers to feed our healthy microbes, our, "Friendly Flora," because you could take all the probiotics you want, they're not going to be able to colonize and to proliferate in your system and actually stay and give you benefit if you don't have the prebiotic foods that specific strains of bacteria need to eat. If they don't have their preferred food source, they're just going to leave. They're not welcome. Alright, so we got to feed them their preferred food source, and pretty much every real food is going to have some type of prebiotic benefit for some strain of bacteria. Alright?



Because when you're eating a food, when you're eating a blueberry, when you're eating an avocado, you're eating the avocado's microbiome. Just think, pooh! Just think about that. It's remarkable, we just see these things, they're just some random entity over there as food, but it is a living thing, and it has its own microbiome, and we're taking that on. It's remarkable. So as we're adding in more diversity of real foods, we're adding in... We don't have to just go and get a list of prebiotics from a Google search. Because it's going to be very limited in its scope and in its... The thought process is coming from the researchers, it's very limited like, "Oh, we know... We got Aniline here, whatever the case might be. So Jerusalem Artichoke, garlic, onions, leeks," we know that that's on the list, but every real food has prebiotic potential, so avocados is another great source of potassium, green leafy vegetables as mentioned, sweet potatoes, a great source of potassium. Sea Veggies. Oh my goodness, especially dulse, this is one of the most remarkable sources of potassium. Alright? Gram for gram, the best source for potassium you're going to find is dulse, and also they got these prebiotic capacities as well.

On that lane, even if there's a beverage that's great with potassium, coconut water. Alright, coconut water. I got put on a coconut water, man, when was that about, probably about 15 years ago? My mother-in-law, she would go to this world market and get these coconuts, these young coconuts, and I'm from Missouri. I never see such things, I didn't get it at all, but cracking those bad boys open, I had to kick it down to the side, you also feel like some kind of way about it too, when you're cracking open that young coconut, you feel like you could play... You know what I'm saying, playing ukulele or whatever, just hand it to me, all of a sudden you just got that skill, you don't, but you just feel it. So yeah, coconut water is another great source of potassium, and again, there's microbiome, you're consuming the microbiome of that coconut as well, so I don't want to be limited in our thinking of what prebiotics are, it's bigger than just... This is what we call fiber, it's so much bigger and broader. Also with resistant starch and potassium, white beans, alright, black beans, some diet frameworks don't allow it. They don't allow it.

And that's okay, but maybe for you, maybe your genes, maybe your ancestors for the past centuries have thrived by incorporating beans and spinach specifically feeding strains of bacteria that have protected you against weight gain, against inflammation, however, maybe the beans are causative factor for some related health issues, because they definitely can be, of course, one of our most incredible guests, Dr. Steven Gundry, multi-multi New York Times best-



selling author, a brilliant physician. Oh my goodness, he's just... I love him so much. Such a great guy. He's seen incredible results. He wrote the Plant Paradox and teaching people, he really brought to the market the understanding of these lectins, these plant poisons, the plants have built into them to protect them. But there are ways, if they're done in traditional fashion, for example, like using a pressure cooker or soaking the beans, like people weren't just making random bread back in the day, when you hear about these scriptural references, oftentimes, it's fermented, it's prepared in a way that's much more intentional versus today's like factory farming, dwarf wheat, this genetically manipulated, whatever that is, it's so far removed from how it's produced, what we evolved with, and also the way that it's prepared.

Okay, shows up as Wonder Bread. "I wonder why I have health problems." So anyways, white beans, black beans, also fit into this category again, if it's right for you, preferably if they're soaked and or sprouted, cook properly, they might be very helpful for you. Because again, Eat Smarter is a unifier of all the best diet frameworks, we provide solutions and strategies for everybody, nobody is left out of the equation, all of these wonderful diet frameworks that are out there, they get results for patients, they absolutely do, but consistently, there's a large percentage of people who don't get the results, and it's because many of these frameworks can be very dogmatic and prevents you from having something that you need, and also encouraging you to eat something that might actually not really resonate with your system. Alright, so we have to keep both of those in context, so moving on and looking at, again, rich sources of potassium, we're just starting out, this is the first list, it's the first list, and also probiotic/ prebiotic capacities to support your microbes that help to create your sleep-related hormones and neurotransmitters, we also have yogurt is in this category. Again, clinically proven it's a great source of potassium and also we get in this conversation, what kind of yogurt?

Well, obviously it's not Go-Gurt, we're not talking about Go-Gurt, the squirtible like... Artificial color, whatever, that stuff. Okay, so ideally we want to get full fat, and we talk about this in Eat Smarter, the nuances, whether you're doing the plant-based or the dairy-based, but we want to avoid... It should be coming from a source that's also consuming its normal diet, so ideally, if it's grass-fed full fat, so it's actually the whole kit and caboodle, but also then there's plant-based versions of yogurt that are becoming very popular today, it doesn't have as much clinical evidence to its benefit, we're still... But tests are being done all the time, and I just want us to be able to have the data at hand that exists and use it



if we deem it something good for us. And also in that camp, when we're talking about potassium, we've got fish like mackerel and salmon, they don't meet the prebiotic fiber rule necessarily, but they're also exceptional sources of potassium, so there's a wide spectrum of different foods, this is just some. We definitely... Please hear me, you have to be consistent, every day, target something that has a good source of potassium because it's required to build your sleep-related hormones and neurotransmitters.

Alright, this electrolyte, because our bodies are largely running on this kind of electrical currency, it helps ourselves to literally communicate, our brain cells need electrolytes in order to communicate, signal transduction. They cannot talk to each other unless we have adequate electrolytes. Okay, now next up, before we dive into more specific foods and nutrients, we want to target again to build our sleep-related hormones and neurotransmitters, even that's not going to matter much, if we don't remove the cause, remove the things that are damaging our sleep-related hormones, neurotransmitters and our microbes, our microbiome, that all of this associated activity is controlling our sleep quality on so many different levels that we've already covered, so we need to remove the cause of the problem. What can be hurting us? And so we're going to just go through a few of these. All of these are listed out in Eat Smarter, but peer-reviewed studies have shown that each of these have, again, proven detrimental impact on your gut bacteria, alright, the same gut bacteria that communicate with yourselves and your gut, creating your sleep-related hormones and neurotransmitters. These are proven, agricultural chemicals, pesticides, fungicides, herbicides, rodenticides, -cide means to kill, it means to kill.

The suffix -cide means to kill, "But it's not going to kill anything in you, it just kills the little pesties... "You're made... We are more of these single-celled organisms than we are human cells by far, alright? Our microbiome is that, it's these very small entities that are very susceptible to chemical exposure. Most agricultural chemicals, the vast majority of the thousands of them, thousands approved for use for growing human food, by our EPA, Environmental Protection Agency, why do they allow it so much? I thought he was going to protect me, I'm part of the environment, EPA. No, it doesn't work like that. These organizations, we have to look out for ourselves and we have to encourage policy change, alright, so...

But these chemicals, they're either estrogenic or neurogenic, so estrogenic meaning that they disrupt the reproductive cycle of very small organisms, or

they're neurogenic damaging the nervous system of these various small organisms and just to say, again, something that I was kind of mis-educated about in school is the nature of a bacteria cell, this single-celled organism doesn't have a brain, it's not smart. Oh, now we know that bacteria communicate with each other, they respond to pain, they respond to changing conditions, that sounds very similar to a nervous system to me. We might call it something else, it's not human, but these things, now again, they're proven to cause significant damage to us, I talked about recently chlorpyrifos, one of the most widely used pesticides. And the multiple studies showing how it's caused significant brain damage to children, the pregnant mothers who were exposed to this chemical again, approved by the EPA and its red taped right now, it's supposed to be banned, it's at the senate floor, it's at the courts or whatever. Why isn't it just gone?

It's all for these politics, man. It's all these politics, then also skyrocketing rates of miscarriage. It's damaging the development of the nervous system of our babies, it's crazy. Alright, so to say that these things are damaging our microbiome, it shouldn't even be complicated to understand. Also processed foods. What does that even mean? What is it? Trust the process. Now, when it comes to food, now when it comes to food, it's so far removed from anything that we're designed to eat over our countless centuries of evolution in this current form, we got homo erectus, homo sapien, we're becoming homo domesticus. We're becoming this domesticated, I think about the album cover, Evolution of Robin Thicke, I don't know if you... It's like you'd be evolving, and then we're kind of devolving, we're eating things in such a small window of our evolution that have never existed before, it's so far removed from actually being real food, it's just chemical and crazy processing to the degree that this corn that we're growing, where we're growing the maize, the corn that we're growing has been put through so much manipulation that now we've got Captain Crunch.

That Captain Crunch doesn't look a damn thing like corn, alright, but it's derived from corn somehow, trust the process, not with this, trust the process in life and other things, but not with food. Don't trust the process, but not to say again, you can't... If you're into crunch berries, it's okay. But we want to make sure that that is the exception and not the rule. Myself, my family, where I come from, it's the rule. We say if I have 30 close family members of mine growing up, 28 of them are obese. I grew up in this. This was just normal. Alright? Knocking down, man, I'd eat a half a box of cereal easy, that's just... That's a regular. And



don't let me get some good cereal, 'cause a lot of times we had the off-brand stuff, I didn't get Captain Crunch, we had King Vitamin, true story. King Vitamin was not as tasty. Alright?

Some of the stuff was equal, is comparable, alright? We had the... We didn't have Tony the Tiger, we had, I think it was like a polar bear, it wasn't Frosted Flakes, it was like sugar flakes with the Polar Bear, "Polo the polar bear. They're good." He's changing the motto and everything. But anyways, but this is just what we were inundated with. Nearly every meal that I ate was processed foods, and wonder why we were in such a poor state of health. These foods are also destroying our bacteria cascade and really feeding opportunistic pathogenic bacteria who look for weakness in our system, it's just how nature works. So these are the things destroying our microbiome, destroying our sleep quality, and we want to be more cognizant of these things so that we can avoid them. Also haphazard use and repeated use of antibiotics. Now, at this point, for all of us, we should really get this, you need to be very aware of when you're getting a prescription for antibiotics, we want to make sure that it's for an actual bacterial infection, because for years, they were just handed out like candy. It didn't matter if it was fungal, it doesn't matter if it's viral, it's called an antibiotic, against life, antibiotic, but specifically killing bacteria cells, alright?

And nine times out of 10, it doesn't care which bacteria that it's destroying, it's like a little bacterial nuclear bomb going off. It doesn't care what team the bacteria is on in most instances, so we want to be much more conscientious to ask questions, make sure that the appropriate diagnosis is there because antibiotics can be incredibly helpful in the right circumstance, but the majority of the time, it's not necessary. And we've seen the ramifications as over the past few years, past few decades, we've destroyed our terrain, our microbiome, when you look at the diversity of our microbes versus... And I shared this study in Eat Smarter, folks who are still eating more, something closer to their indigenous diet, more of the hunter-gatherer, they have four times more bacterial diversity in their gut than the average person here in America.

We're losing... It's like a rainforest, we have a lot of endangered species and a lot of things have gone extinct, and as the data very clearly shows, we're going to get... We shared multiple studies on this, just incredibly eye-opening in the book, as your micro-diversity goes down, your rate of obesity goes up. As your micro-diversity goes down, your rate of insomnia goes up, your rate of heart disease goes up, your rate of diabetes goes up. Our microbes matter. Alright?

Trust the process, but not with your food, alright, so haphazard use of antibiotics as well, we want to be more aware of that, and again, there's a list of some other things that we need to be more conscientious about and careful about, so we're not destroying the very microbes that are helping in the process of creating our sleep-related hormones and neurotransmitters.

Now on that note let's dive into some more of the good sleep nutrients and specific foods for us to target to improve our sleep quality. The next one I want to talk about is one of the nine essential amino acids. It's essential. That's a powerful statement. Now, I believe that in the next few years, we're going to move away from this term of being an essential amino acid as if the other ones aren't, because many of them also play absolutely essential roles, but this one already gets that moniker, it already gets the name tag, it shows up at the events like I'm essential, I'm a speaker here, I'm VIP. Alright? And this one, it's essential also noting that it must be obtained from our diet, our body is not just readily wishy-washy making it because our body can actually make quite a few different nutrients. And really, really wild stuff.

And this nutrient, the specific one that we want to target for our sleep quality, one of the nine essential amino acids is tryptophan. A tryptophan deficiency has been found to create disruptions in our REM sleep our rapid eye movement sleep, while also improving tryptophan levels have been shown to reduce wakefulness at night and increase mental alertness after waking up in the morning, this is according to data cited in the journal Nutrients. Now, if this isn't remarkable enough as it is, all these benefits that we see with tryptophan, as you'll recall earlier, we talked about how serotonin is a key building block of melatonin. Well, tryptophan is a key building block of serotonin, it goes tryptophan-serotonin-melatonin. Alright, your body needs... This is why I'm specifically targeting this nutrient is that your body needs copious amounts of tryptophan, it's used for a lot of different processes. So this is something to be more intentional about including more of these foods in your diet that are rich in tryptophan.

Again... Within the bounds of your particular diet framework that you might be subscribed to, or allowing yourself to maybe experiment with some other foods that might just hit a real powerful sleep note for you and improve your sleep quality. So some of the best sources of tryptophan include, there's the stereotype with the turkey. Alright? Tryptophan and the itis. You get that turkey nap on game day. But it's not from the turkey. Let's be honest. Alright? It's from

the sheer amount of food that we eat, because it's as if we're not... We're basically eating like we're not going to eat again till next Thanksgiving. We got to just pack it in. That's why we're sleeping. But turkey, chicken, lobster, eggs, cheese, tofu, chocolate is a really great source of tryptophan, but again, we want to get the best stuff, the best quality chocolate comes from a plant. Cacao. These little cacao seeds. Spinach. Another great source of tryptophan. Pumpkin seeds, excellent source of tryptophan. Peanuts, and also, spirulina is a really good source of tryptophan as well, the super green algae. Alright. So those are some more foods to include at an array of them or, again, this is something whatever fits into your diet framework, but we want to make sure tryptophan is very important for improving our sleep quality.

And now for the next nutrient and specific foods that we want to look to targeting for sleep quality. This is another major point that when I was in my traditional university nutritional science class that I paid for, I paid to be mis-educated, I was taught we need to get our essential nutrients, vitamins, minerals. Get a multivitamin. Get a multi. It's got everything you need. Well, here's the problem with that. When we're getting our calcium from a multivitamin, multi-mineral, when we're getting our vitamin A, when we're getting our vitamin C, is it the vitamin C that we actually need? Is it the vitamin C that we're deficient in? Because there's multiple types of vitamin C, there's multiple types of vitamin A, there's multiple types of... Not just the B vitamins, but even within the category, the sub-category, B vitamins, B12, there's multiple types of B12. There's multiple types of vitamin D, there's multiple types of magnesium. The intelligence is not there in the damn Centrum Plus formula. It's just not. That's why food is so powerful. It's got it all. And it also has these co-factors, these bio-potentiators that make it work better in your system. That's how powerful food is. We evolved having food, not Flintstones Vitamins. That's new. Not to say food-based multi can't be helpful. But we don't want the synthetic garbage, and we want to make sure that we have an array of these nutrients.

So I just want to preface by saying that, so when I talk about this specific B vitamin that we know has a deep connection to our sleep quality that we want to look at food first. Alright? And this vitamin is B6. Alright? B6. Now, vitamin B6 is a critical co-factor in the tryptophan-serotonin pathway. Coming into the game in its short shorts and unsuspecting demeanor, vitamin B6 plays the role of John Stockton, making the biggest assist in the production of both serotonin and melatonin. Low key, you wouldn't even know it. Now, when your system is



jazzed up, shout out to the jazz, John Stockton, you see how I laid at that? That's an Eat Smarter, baby. This essential vitamin helps to modulate your body's stress response and relax your nervous system. How often is our sleep disrupted simply because our sympathetic fight or flight nervous system, our levels of stress are just messing with us. B6 is essential in that pathway in helping to activate that parasympathetic rest and digest nervous system. That's how important it is.

Some of the best sources of B6 are yogurt. There's yogurt again. It's got some value, but again, it's been used for thousands of years. Not the Go-GURT, not the stuff we have today. Yogurt's got that B6. Salmon, tuna, eggs, chicken liver, it's a good source of B6, chickpeas, spinach, sweet potatoes and avocados. Now you can start to see some consistencies with foods that have more. They have multiple of these good sleep nutrients. So these are when we can start to stack it, like, "Oh, wait a minute. Sweet potatoes are good for both." Get you a food who can do both. So, B6 is one of these good sleep nutrients that we need to target. Again, targeting these foods at least several times a week, if not daily, because many of them your body needs pretty significant amounts, because they're responsible for so many different functions.

Alright. Let's jump to the next one. And this one, I had to put into Eat Smarter because of data cited in the journals Appetite and the peer-reviewed journal, PLOS One, Public Library of Science One, demonstrated that insufficient intake of vitamin C increases the likelihood of sleep disturbances and shortens the duration of overall sleep time. Moreover, listen to this, a 2009 study showed that a combination of vitamin C, which was 100 milligrams in this particular study, and vitamin E, which was 400 IU, taken twice daily, in addition to... Well, this was folks who were dealing with significant sleep apnea, in addition to them using their positive airway pressure, CPAP administration...

The combination of these nutrients helped to significantly reduce episodes of sleep apnea versus just using CPAP by itself. We want folks to not need the CPAP, we want to be able to help to reduce body fat, to improve the oxygenation of their brain to actually enable them to get efficient sleep cycles so that they're healthier. We're just treating a symptom still with the CPAP alone, and ultimately, all of these things are an option, but the part that's often left out of the equation is the nutrition side that makes everything happen because your lungs that is trying to breathe, your lungs are made of food, your brain that's running all these processes, it's made from food, it's made from





these specific nutrients, so I just wanted to add that piece in because a lot of folks are dealing with sleep apnea today, it's one of the... Again, just rapidly growing, this didn't exist before at this level, it's just at an epidemic, and we want to be able to get folks better sleep, so that they can feel better and be healthy, so also the inclusion of vitamin C and E improved sleep quality for study participants and decreased daytime sleepiness, they had more energy throughout the day.

Vitamin C is ideal, but it's another one of those things we need copious amounts, it's used for so many different things. But again, we generally, when we hear vitamin C, we probably think about the immune system... Yeah, there's a lot going on with that, immune system stress, but also it's important for regulating our sleep quality. Great sources of Vitamin C include just everyday foods that a lot of folks know about like bell peppers, green leafy vegetables. I don't think a lot of people realize green leafy vegetable is a great source of vitamin C, broccoli, a really good source of vitamin C, Kiwis, shout out to Kiwis. Underrated, underrated strawberries, citrus fruits. I think we generally identify citrus fruits as being like the vitamin C food, but there are many that have... Many foods that have more Vitamin C content, but these are good too.

Papaya is another great source of vitamin C, then there's superfoods, like they have this incredible concentrations of vitamin C, like Camu-Camu berry, Amla berry, Acerola cherry, and many others, but these are foods that even myself personally, I'm finding creative ways to get in vitamin C dense foods. I've seen it first-hand clinical practice, getting somebody's vitamin C levels up, improving their sleep quality, I've seen it time and time again, it might just be the one thing they're doing all of this stuff right, but a simple vitamin C deficiency helping them to sleep better at night. Alright, next up, I'm going to provide a specific food for a specific sleep scenario, because getting a good night's sleep is one of the most effective treatments for things like colds and flus, but unfortunately, sometimes being under the weather can cause problems with you getting good rest to help you to recover. So in that specific scenario, if you need a little assistance to sleep better when you're dealing with symptoms and as well as your family members, your kids, like a grotty cough and sneeze and just an inability to breathe well and to sleep well. Look no further than your favorite beekeeper.

A randomized double-blind placebo controlled study revealed that honey is able to outperform a placebo and significantly reduce cough frequency and severity

at night, and was found to improve sleep quality. Honey is also a remarkable source of antioxidants, and it's even been found to help to reduce things like blood fats when used as a replacement for sugar, and all of this is pretty sweet, but again, what are we doing in terms of reducing coughs and helping to sleep at night? We turn to these "Cough syrups" that have these insane... Let me just share with you, we're just talking about one of the populars, right? The NyQuil, that NyQuil. Ingredients in some of the most popular conventional cough medicines, FD and C, blue number one, red number 40. What is that? High fructose corn syrup. They're not even trying to hide it. They got the fructose, they got the high fructose in there, propylene glycol. Just Google propylene glycol and anti-freeze and enjoy. Saccharin.

Alright, so we want to avoid these things, how are we trying to get better, but we are adding things that make us worse? Again, many of these things damage our nervous system, damage our microbiome, and it's coming along with our "Medicine," we have to do better, and what my family uses and what we keep in our cabinet is this incredible B-soothed Cough Syrup made with high quality honey and some of the most powerful immune supporters on top of that, first of all, you want to get honey that does not have a... That's third party tested, it doesn't have lead and pesticides, unfortunately, this is common in that industry now at this point, so it's third-party tested, and it also has this incredible combination of other immune supporters, so it's pure high quality honey, elderberry, chagas in there. We got chaga, bee propolis, which also has powerful anti-viral capacities as well, and this is seen in the peer-reviewed journal, Antiviral Chemistry and Chemotherapy revealed that propolis has significant anti-viral effects specifically in reducing lung infections. Come on, this exists and it's real and it's natural and it doesn't have all that craziness in it.

So again, this is called B-soothed cough Syrup. B-soothed Cough Syrup from Beekeeper's Naturals. No drugs, no dyes, no chemicals, no refined sugars, this is what you need to have, especially during this time of year, just have this around in case you need it. Alright, go get you some, like right now, B-soothed Cough Syrup, go to [beekeepersnaturals.com/model](http://beekeepersnaturals.com/model), and you also get 15% off as well. So take advantage of that, that's B-E-E-K-E-E-P-E-R-S, [naturals.com/model](http://naturals.com/model). Again, that's B-E-E-K-E-E-P-E-R-S [naturals.com/model](http://naturals.com/model). Alright, so that was a specific food for a specific scenario, and we've got a list of these powerful specific nutrients to build sleep-related hormones and neurotransmitters in Eat Smarter.

Let's target another one. Again, there's many more, but we've got to talk about



this one because it's so important, a 2016 study reported that magnesium is able to reduce the activity of your sympathetic fight or flight nervous system and turn on the activity of your parasympathetic rest and digest nervous system. And in another study published in Pharmacological Reports states that magnesium is able to interact with inhibitory GABA receptors and induce anti-anxiety effects, "Hakuna matata," that's the "Hakuna matata" vibe that magnesium provides.

And one of the double-blind placebo controlled study published in 2012 on that improving magnesium levels appears to improve sleep efficiency, improve melatonin function, reduce cortisol and reduce wake after sleep onset. Come on now, magnesium is the number one mineral deficiency in our country. About 60% of our citizens are chronically deficient in magnesium, we have 115 million people who are regularly sleep-deprived, coincidence? We can do something about this. And again, how are we deficient in something that's abundant in real foods? Now, magnesium, the reason that it's so powerful and so essential and so needed, and we also have the big deficiency is because it's responsible for so much. Magnesium, we now know that it's responsible for over 650 biochemical processes in the human body that translates... What does that mean? That translates to mean that 650 things your body cannot do if you're deficient in magnesium or can't do effectively, the human body is resilient, it tries to find a way, but 650 processes in your body that we know of now are dependent upon magnesium being present, food first, what are some excellent sources of magnesium? Again, I'm stressing on really how important this is in this category of eat these foods to improve your sleep quality, foods that have excellent dietary sources of magnesium include avocados, coming in again, get you someone who could do both, get you a food who could do both or three.

Pumpkin seeds are great sources of magnesium as well, almonds, great sources of magnesium, dark chocolate, chocolate is there again, so really, really great source of magnesium, leafy greens, anything that's green, is that indication from food because colors indicate nutritive value as well. We didn't get here without instructions from nature, it's telling us that we get feedback from the way food tastes, it's something called post-ingestive feedback as we evolved eating natural foods, when we would eat a food that we happened upon, our body would effectively take notes, like take a little sticky note, and write down, "Okay, so I just came across these berries, I just got a little bit of copper, I got a little bit of magnesium, I got a little bit of vitamin C," and it creates flavor sensations, connections and cravings and desire for certain foods based on the

nutrients that our bodies needed, but food manufacturers have muddied up the water of that communication, we can clear it up by eating real foods, and our body is getting attuned again to knowing that this specific flavor that the food is attached to is associated with these specific nutrients, but also the way that the food looks, the colors are indication of nutrients, anything that's green, especially leafy green vegetables, spirulina, great sources of magnesium.

Chlorella AFA, blue green algae, but also in that kind of black and brown category, as I mentioned chocolate, black beans are also a great source of magnesium, fatty fish are a great source of magnesium as well, and as I mentioned already, super green, green dense superfoods like spirulina, Chlorella, all great sources of magnesium, we need to be very proactive at including many of these foods, and as mentioned, we go through many more of these good sleep nutrients in Eat Smarter, and also some of the other things for us to be more intentional about just managing a little bit better, because some of the things that we can be consuming on a regular basis could be destroying our sleep quality and we don't really even realize it, and one of these things during this very strange time of a pandemic and all the associated shutdowns that has really skyrocketed in consumption is alcohol. It's that liquor. A recent meta-analysis, affirm that drinking alcohol close to bedtime does in fact help people to fall asleep faster. Wait a minute, what? Hold up. Let me continue.

But there's a catch bigger than OBJ reaching back and posturizing a defender, there's a catch here, cited in the peer review journal, JMIR Mental Health, researchers found that even one drink close to bedtime can impair your sleep quality, moderate alcohol consumption was found to lower restorative sleep quality by 24%.

With high alcohol intake damaging sleep by nearly 40%, a hangover isn't from the alcohol alone, it's from the detrimental impact that it has on our sleep cycles, specifically, alcohol is known to create damage, and disruption to our REM sleep, right, it's called the REM rebound effect that we see with the consumption of alcohol close to bedtime. With alcohol in the system, even after the person is asleep, because again, it helps us to fall asleep, our REM sleep is delayed and or suppressed leading to insufficient recovery of crucial brain and bodily functions. So again, it's not that alcohol inherently is something that is just off limits if you... It's not like that, we just need to be more intentional and knowing that drinking close to bedtime, we want to have a little bit of an alcohol curfew there, so your body and...



Also your body processes alcohol very quickly, let me give you a heads up as to what that looks like, alcohol cannot... This is so powerful, what I'm about to tell you, and this is things that are highlighted in Eat Smarter that you just don't hear anywhere else, your body, unlike the other macronutrients, fats, carbohydrates, proteins, water is a macro-nutrient, alcohol is also a macro nutrient, as in an energy source. But your body cannot store alcohol. As soon as it comes in, everything else is forgotten about, your body gets on that alcohol, alright, immediately. Immediately, because it cannot store it. Some toxicity components there. Alright, so a process called fat sparing happens where your body will stop using stored body fat, switch gears, switch over, use that alcohol instead, it's called fat sparing, it literally stops the process of burning fat when alcohol is present, just letting you now. Not to say you can't get your sip on, but this might be the thing that's disrupting your sleep and also disrupting the results you're looking for with your metabolism.

The rates of alcohol consumption have skyrocketed, it's a stress reliever, it's a way for us to get away from... From the problems that we're experiencing, as there's so much stress, we've got to be able to manage this a little bit better, maybe this is a call for someone to just check themselves, just to check in with themselves and just be like, "Have I kind of went a little bit overboard where I want to be with my alcohol consumption and what are the ramifications of it?" Not that there aren't even potential benefits, and I talk about this in Eat Smarter, there's some remarkable things there, if you look at some of the categories within the construct of alcohol, but we also know that it's a very powerful psychoactive drug, and we also know that it can be incredibly detrimental to our sleep quality.

So with that said, let's have a little bit of alcohol curfew, give yourself a little bit of time for your body to metabolize the alcohol. That's number one. Number two, if possible, and number two, we can also help for your body to metabolize it and flush it out of your system even quicker by upping our intake of water, alright, the quote is nature's solution to pollution is dilution, right? So adding in a little bit of water can help your body to process it a little bit quicker and improve your quality of sleep, so again, there are things that we might be consuming that are damaging our sleep quality and we don't really realize it, which then if we're sleep-deprived. If you've ever had a hangover, there are long tail effects that come along with that, this might cause problems with our sleep later on as well, our body's trying to sort itself out.



So maybe we can break that pattern a little bit, and again, being more aware of the things that might be damaging our sleep and adding in more of the things that improve our sleep quality, because again, all of these processes are happening based on food, sleep-related hormones, neurotransmitters, our bacteria, our gastrointestinal tract, our brain itself is made from food, this matters and this is the power that food has to affect so many different areas of our lives, and I'm just going to share a couple more very specific food sources that we can imbibe, that we can utilize to improve our sleep quality, and one of those...

This is one of my favorite things. I have this most days during the week, just about everything, I try to cycle and not just use this thing all the time, but this is in the category of well-noted, there's thousands of years of documented use, thousands of years. We can't say that about hardly anything, but this is in a category of what's known as adaptogens and or having these kind of tonifying effects where the more you use it, the more benefit that you see, but I still like to cycle things, but again, most nights of the week, probably three or four nights a week, I have this about 30-45 minutes before bed. And this is because of a study published in the Journal of Pharmacology Biochemistry and Behavior, found that the renowned medicinal mushroom Reishi was able to significantly decrease sleep latency, meaning you fall asleep faster, increased overall sleep time and increased non-REM deep sleep as well as REM sleep. So it improved all parts of our sleep cycle. Well, that's incredible. This is something that everybody should know about, and again, but the quality matters, don't just go out and get Reishi just because whatever.

You want to make sure that it's done right. And the Reishi that I use is dual extracted, so meaning it as a hot water extract and alcohol extract, this does not mean that alcohol is in it, the alcohol is gone, but it's used to extract it from the mushroom. And this has been done for thousands of years, because there's different nutrients that are unlocked from the Reishi through different extraction methods, you can't get everything out through one method, right? You got the categories of beta glucans, you got categories of hormonal beneficial like tri-terpenes, you get all of it when you get Four Sigmatic Reishi, they do a dual extraction, super easy little packet to have a Reishi tea in the evening. Alright?

And that's [foursigmatic.com.com/model](http://foursigmatic.com.com/model) is, F-O-U-R-S-I-G-M-A-T-I-C dot com. And

you get a special discount, 10 to even 15% off. Depending on how much of the mushies you get, mushie is a cute little name for mushrooms. But Reishi is one of my favorite things. Now, just to be clear, Reishi doesn't mean delicious. It's a very... It's a very herby, you know, it has its own flavor to it, but I like to have it. The bitterness can get cut with a little bit of like MCT oil, a little bit of... depending on your diet framework, maybe a little bit of Ghee, maybe a little bit of coconut oil and also maybe a couple of drops stevia, but just make it taste nice and you can have a pleasurable experience, but a lot of people just drink the Reishi as it is it's not like... Let me tell you a nasty tea, Pu'er, listen to the name Pu'er, but man, it's got some incredible benefits as well. But Reishi is one of my favorite things to have in the evening because... And I noticed it, like I really noticed when I have Reishi, especially if I haven't had it for a while, and I'm just like, "Man, I should do this more often. Reishi from Four Sigmatic. That's [Foursigmatic.com/model](http://Foursigmatic.com/model).

Alright, also, one of the things that even my grandmother would have, chamomile, incredibly storied, medicinal herb, and also for relaxation and improved sleep, it doesn't have as much efficacy and real benefit as far as sleep is concerned as Reishi does, but chamomile still has some really interesting properties. A randomized controlled trial cited in Complementary Therapies in medicine demonstrated that Chamomile extract was able to significantly improve sleep quality in test subjects versus a placebo, we got it, versus a placebo. And chamomile is another excellent tea to have in the evening, or it can be taken as capsules. They have that available as well. But as with anything, I want to look for organic and no questionable fillers and binders, especially in capsule form, which is again, another reason I love Four Sigmatic its organic. We're not worrying about having this incredible beneficial, medicinal mushroom along with pesticides. That shouldn't go together.

And one more thing I'll share, because again, this is so important because it's the number one mineral deficiency we talked about, I just want to reiterate this point, so food first with magnesium, but also this can be utilized in supplement form, but there's so many different types of magnesium so we want to be aware of that, but magnesium is one of those things that is also easily absorbs topically through our skin, so there's some wonderful magnesium. Topical applications, magnesium sprays. There's one at [easemagnesium.com/model](http://easemagnesium.com/model), ease, [E-A-S-Emagnesium.com/model](http://E-A-S-Emagnesium.com/model). That's what I use most evenings, it's really great for recovery, sore muscles, all that good stuff, but also just even a simple Epsom salt bath, everybody's heard about that for many, many years. It's one of

those things that helped to accelerate healing, but also sleep better, that's a form of magnesium, Epsom salt, its magnesium sulfate.

So it's not just what we eat through the normal process of what we think of eating, like putting food in our mouth and it traveling throughout our system, which is really amazing because the food stuff becomes you. Food stuff, becoming you stuff, it's a miraculous process, but also our skin eats as well, so the stuff we put on our skin matters too. And I hope that you got a lot of value out of this. There's so many powerful dynamic aspects of this conversation, but to help to improve our society's sleep troubles, we have to look at the number one thing causing the problem, and the number one solution, which is our food.

It's what our sleep-related hormones and neurotransmitters in our gut and our brain and everything involved in making the sleep magic happen, it's all made from food, and it can also be damaged by the wrong stuff, alright, so again, I hope you got a lot of value in this episode, make sure to head out and get your copy of Eat Smarter if you haven't done so as well, they're back in stock, they're back in stock, they were sold out very quickly. It was kind of crazy. And even some of our most... The people that I just absolutely love who pre-ordered the book, some of the retailers didn't even get books in the first place, and they weren't even able to get their books when they pre-ordered, and so we've been working like crazy to take care of them and get them some extra cool stuff as well.

But we just want to keep the momentum going, the books are back, we've got a big mission ahead, we've got an entire culture to change, we've got an entire world to change, and now we have the data to do it. And again, this is inclusive, it's a unifier, nobody is left out, but we all have to take what we learn and apply it in our lives, and also apply it and share it with the people that we love, number one, by being the model that's the most powerful way you can effect change is by being it, but also just providing exposure, and I wanted to create a book that regardless of where you are as far as your education with nutrition, you could be the most advanced superhero with nutrition to you're just trying to figure basic stuff out for everybody to get an immense amount of value, but in a way that makes sense, that's fun, that takes you on an adventure of learning and discovery and empowerment.

So very, very honored and grateful for this experience, but we got work to do, and we've got some incredible episodes coming your way very soon. So again, if



you got a lot of value out of this, share this out with your friends and family on social media and be ready, we've got some epic stuff coming your way. Take care. Have an amazing day and I'll talk with you soon.

And for more after the show, make sure to head over to the [themodelhealthshow.com](http://themodelhealthshow.com), that's where you can find all of the show notes, you could find transcriptions, videos for each episode. And if you got a comment, you can leave me a comment there as well, and please make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome, and I appreciate that so much and take care. I promise to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.