

EPISODE 339

4 Hidden Things That Could Be Destroying Your Sleep Quality

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.

Over the past few years since the release of 'Sleep Smarter,' I've been able to accumulate a lot of new data, and some of the stuff that we're going to cover today is just crazy.

It's absolutely crazy to know how very strange things in our environment, some of the things that we're doing, can have such a tremendous impact on our sleep quality.

And today we're going to be talking about four hidden things that could be destroying your sleep quality, and some of these things are very pervasive, and you probably interact with them on a regular basis.

And I want to make sure that you have these insights and some of these crazy new studies, but also some actionable steps and things that you can do to ensure that you're getting the health that your body really needs.

I can not have a conversation about sleep today without talking about supplementation, because this is one of the things that people really lean towards.

We have a culture of taking stuff, right? A pill for every ill, even if you're doing the natural thing and you're looking at things from a more holistic perspective.

It's still oftentimes this very allopathic thinking that I take something in order to get some result, whereas what we do with *The Model Health Show* is we look at the lifestyle factors predominantly that are really regulating so many of these things.

But understand that supplements can be beneficial, they can be just that, they can supplement an overall healthy lifestyle.

So we don't want to mistake the two, but keeping in mind that people are- especially today there are so many different supplements geared towards and marketed towards improving your sleep.

Because as we know, it's an absolute epidemic today with sleep deprivation and issues with sleep quality.

And so for me personally, I always like to err on the side of the things that are tried and true, the things that have been used for centuries.

And for me, I love the fact that today with our modern science we can affirm some of the things that our ancestors just knew were very effective for different conditions whether it's supporting liver function, or supporting your brain health, or improving your sleep quality.

And so there was a study published in 'Pharmacology, Biochemistry and Behavior' that found that the renowned medicinal mushroom rishi- huge fan of rishi when we're talking about something to improve your sleep.

They found that rishi was able to number one, significantly decrease sleep latency. That means you fall asleep faster.

They also found that rishi was able to increase overall sleep time for the test subjects, increased non-REM sleep.

So this is the deep anabolic sleep. So folks were spending more time in deep anabolic sleep when taking rishi.

And another thing in addition to the improved deep sleep, they also had an improvement in their REM sleep as well. So we're talking about more efficient sleep cycles.

So this isn't something that is effectively knocking you out, right? Just making you unconscious and giving you a real- sort of a pseudo sleep.

That's what I would experience when I was dealing with my own health issues many years ago, and taking my prescription medication, over-the-counter medication to basically knock me out at night because my pain was so bad it would wake me up.

And I never really felt fully out of this fog until hours after I got up in the morning because I really wasn't going through my sleep cycles effectively.

I was just being unconscious, and there's a big difference. And rishi is actually supportive of your sleep cycles. So it's supporting your body to do these natural processes.

In addition to that, there was another study published in the 'Journal of Mediators of Inflammation' that found that the polysaccharides in rishi were able to enhance the proliferation of T cells and B cells.

So it's supportive of your immune function and your natural killer cells, and so really helping to train your immune system.

Because medicinal mushrooms like rishi, they're known as immunomodulators, so they're able to move your immune system in the direction that it needs to go, whether needs to be increased, or whether it needs to be brought down some because it has this intelligence.

And all of these things, again, are mediators of inflammation, just like the name of that journal, and inflammation can play a big part in our brain health and consequently our sleep quality as well.

So big fan of rishi, and I use the rishi from Four Sigmatic because it's dual extracted so you're actually getting a hot water extract and alcohol extract.

That does not mean there's alcohol in it, it's just an extraction method. But these two extraction methods, you actually are able to pull all of these vital compounds we're looking for when we're talking about a study like this.

What extraction method are they using? We don't often know. And also there are compounds- so there are the terpene compounds and hormonal compounds, then there are like the beta glucan and antioxidant compounds.

You're not going to get these things doing just one extraction method. We want all the good stuff from it.

This is why I love them and they're easy simple to use instant packets. So you open it up, put it into your cup, pour some hot water in there, maybe a couple drops of Stevia, maybe a little ghee or some MCT oil, some emulsified MCT oil, something just to enjoy the process.

It's a relaxing part of my evening. It's kind of part of my evening routine that is guiding me to that great night of rest.

We're getting all these beneficial compounds, but also it's just kind of that really powerful evening routine.

So definitely head over there, check them out. It's www.FourSigmatic.com/model, and you get 15% off all of their medicinal mushrooms, and medicinal mushroom coffees, medicinal mushrooms hot chocolate, medicinal mushroom blends, and so much more.

It's www.FourSigmatic.com/model. That's www.FourSigmatic.com/model for 15% off everything. So head over there, check him out, and on that note let's get to the Apple Podcasts review of the week.

iTunes Review: Another five-star review titled, 'You have my eternal gratitude,' by DaringBuffaloHunter.

"I am such a fan of your show. It is an honor for me to leave this review. I'm writing you to express my gratitude.

Thank you also to iTunes for letting me leave a review and give back to this community Shawn has created. Shawn's work has inspired me for years. Everything from my use of magnesium spray to adding turmeric to my morning eggs.

The information Shawn provides is absolutely invaluable. The way that he disseminates information into practical knowledge bombs is so helpful and honestly encouraging. Thank you for being out there and in my ear. You have my eternal gratitude."

Shawn Stevenson: Wow, that was absolutely incredible. Thank you so much for sharing that, and I'm just grateful to have that impact in your life. It means everything, so thank you so much for taking the time to share that.

And everybody, thanks for popping over to Apple Podcasts and leaving these reviews for the show. Please, if you've yet to do so, pop over there and leave a review. I appreciate it so very much.

And on that note, let's get to our topic of the day. Today we're covering the four hidden things that could be destroying your sleep quality.

Again, these are things that are very pervasive in our culture, and unbeknownst to you right now, it might be something that is causing issues with your sleep cycle.

It might be causing issues with you falling asleep and staying asleep and just going through that natural rhythm that we really require in order to get sufficient healthy sleep.

So let's start with this statement first in this discussion which is what is sleep really?

Well, when we're looking at this conversation about sleep, it's a very strange thing, isn't it? Sleep is weird, but it's something that is required because we would have evolved out of it long ago if it wasn't something that was of the utmost importance for human evolution and survival.

Because it's during sleep, because of our incredible brains, they're doing so many different processes for us, and many of these processes, we need to shut things down because so much energy is required to do housekeeping with our brains.

Here's a little fun fact that you might not know. Your brain actually shrinks while you're asleep. I know it sounds weird and you might be like, "I don't want that. I want to stay awake forever."

This is actually a good thing because your brain swells throughout the day because of all of the metabolic waste products that get accumulated.

Your brain is doing millions of processes a minute, and there's new cells being created, old cells are dying, there's a lot of waste products and we have to get that stuff out.

Your brain has to 'detoxify' itself, and there's the blood brain barrier. So there's not a direct connection with your lymphatic system, which kind of handles the cellular waste management of the rest of your body.

Your brain has its own system, it's called the glymphatic system. This glymphatic system - a little shout-out, it's run by the glial cells in your brain - to help to eliminate these wastes, and your brain can shrink about 20% during sleep as it's getting rid of these wastes.

And this glymphatic system is ten times more active during sleep than when you're awake. This is when that housekeeping takes place.

And we know today that issues with conditions like Alzheimer's, which is now the sixth leading cause of death - sixth leading cause of death today - that Alzheimer's is now found to be related to an inability of the brain to detoxify itself.

Now this is correlated with- what else is happening in our society? Massive issues with sleep deprivation.

And this is my argument, is that this is one of things we need to address so we can start to see a reduction in these rates of conditions like Alzheimer's.

And that's just one component of it, but when we're talking about sleep, so what is it? Sleep is this really interesting phenomenon where we see repair and improved function of our brains, of our muscle, things like muscle repair is taking place.

Our hormones are getting optimized and back on track because there are different hormones- as we go throughout the day different hormones are being produced, and during sleep is a crucial time because it's a very anabolic state where we're producing a lot of anabolic hormones.

But how do we know we're asleep? We know that we're asleep, we can monitor this when we see changes in our brainwaves.

To really make it super simple, sleep is a change in our brain rhythms. So as we're awake right now, we're in a state of beta.

We've got these beta waves taking place for the most part. We can get into some gamma too. We can get into some gamma.

But from there, we transition as we move into sleep, we move into the alpha. It's a very relaxed state of focus if we're awake and can get into the alpha state.

So that's something that we transition into, then from alpha we move to theta. This is that transitional state into sleep, and then we move into delta.

That's that deep anabolic sleep. We're cycling throughout these throughout the night, and we need to spend an adequate time in each stage of sleep, and depending on which expert you talk to, we've got four stages of sleep cycling.

Predominantly what we talk about is REM sleep and non-REM sleep, and REM sleep is the rapid eye movement sleep.

This is when you are getting your dream on. This is also where a big part of memory processing takes place and converting what you're learning even right now to your short term memory.

It's becoming more consolidated and filed away during sleep.

And so on average, our sleep cycles are somewhere around 75 to 120 minutes in some cases, going through all of those four stages efficiently.

And during your first part of your sleep in the evening, you're going to spend more time in delta, and as the night goes on you spend less and less time in delta during each sleep cycle.

And so all of these stages are important but they can be interrupted, they can be interfered with, they can be damaged by certain things that we are exposed to today.

And so today again, we're going to cover the four hidden things that could be destroying your sleep quality, and we're going to start number one with something called MSG. Alright?

MSG or monosodium glutamate, and it's labeled as a flavor enhancer that's been used in food production for decades now.

And monosodium glutamate is simply the sodium salt or the ionic form of glutamic acid. And now this is an amino acid that is one of the building blocks of many proteins.

So it's something that we need, we require, but this is the ionic form of it. And some of it occurs naturally in the cooking process or even fermentation process and that's all good.

But commercially processed MSG is a potential culprit in several health issues. So let's just start with this before we get into the sleep connection.

And by the way, so what is the flavor enhancement? What is it? It really plays on that umami flavor sensation.

So we've got sweet and salty and bitter and sour, but the other one that is kind of newly discovered and talked a little bit more about, is umami. Alright?

First of all, I just like saying umami, but that's more the savory kind of thing that's attributed to the flavor and experience of things like broth, and different meats, and things like that. So that's that umami flavor. So MSG really enhances that.

Now listen to this. Research published in the journal 'Obesity' confirmed that animal studies indicate monosodium glutamate can induce hypothalamic lesions, lesions in the brain, and leptin resistance, possibly influencing energy balance and leading to obesity.

Wow. When we hear like, 'Oh there's controversy around this, we don't know what MSG really does.' It's right here. It's in the journal 'Obesity.'

And so leptin resistance, potentially this could be a huge culprit in obesity because leptin is your body's major satiety hormone, helping to really regulate your appetite.

And so when you have leptin resistance, this is going to inherently lead to being hungrier more often. So that's what they're seeing in animal studies, but what about the people? What about the people?

A human study published in 2008 in the journal 'Obesity' looked at the MSG intake of 752 people between the ages of 40 and 59, and found that MSG consumption was directly correlated with higher rates of being overweight.

The study also accounted for other factors like physical activity, total energy intake, and MSG was clearly a culprit connected to having a higher body mass index.

Alright, there you have it. It's not just 'I don't know if it's a potential issue.' It probably is. It probably is. Now where is it? Where is MSG sneaking its way into your body?

Well it's used pervasively as a flavor enhancer in things like fast food, and restaurants, and frozen meals, and canned soups, potato chips, and things like that.

Now what this is kind of labeled as out there, which this is the controversial part about it, is this category of what are known as excitotoxins.

And according to Dr. Joseph Mercola, and he was on the show a while back, we'll put that episode in the show notes.

"MSG is one of the worst food additives on the market and is used in canned soups, crackers, meats, salad dressings, frozen dinners, and much more.

It's found in your local supermarkets and restaurants, in your child's school cafeteria, and amazingly even in baby food and infant formula."

And he goes on to say that one of the best overviews of the very real dangers of MSG comes from Dr. Russell Blaylock; a board certified neurosurgeon and author of 'Excitotoxins: The Taste That Kills.'

In it he explained that MSG is an excitotoxin which means it over-excites your cells to the point of damage or death, causing brain damage to varying degrees, and potentially even triggering or worsening learning disabilities, Alzheimer's disease, Parkinson's disease, Lou Gehrig's disease, and more.

And part of the problem is that free glutamic acid is the same neurotransmitter that your brain, nervous system, eyes, pancreas, and other organs use to initiate certain processes in your body.

Even the FDA states this. 'Studies have shown that the body uses glutamate and amino acid as a nerve impulse transmitter in the brain, and that there are glutamate responsive tissues in other parts of the body as well.

Abnormal function of glutamate receptors has been linked with certain neurological diseases such as Alzheimer's disease and Huntington's chorea. Injections of glutamate in laboratory animals have resulted in damage to nerve cells in the brain.'

Now we know that this has a significant impact on our brains and other cells in our bodies, but what about the sleep connection? Listen to this, this is nuts.

A 2013 study published in the journal 'Nutrition' found that MSG intake was significantly associated with snoring and a high probability of sleep disordered breathing in test subjects who were of a normal body weight.

What? That is nuts. MSG is related to sleep disordered breathing. Snoring, this is another big epidemic right now, because trust and believe if you have sleep disordered breathing, you're going to be having interrupted sleep cycles because that lack of oxygen is going to cause you to come out of different stages of sleep.

You might not be conscious of it, you might not fully awake, but it's going to interrupt because it's a survival response if you're not getting enough oxygen in.

Now I specifically wanted to share this information about MSG because this is something that has been anecdotally a problem for me, causing issues with my sleep, and I didn't know this at first, but this is the benefit of really doing this work and

getting more in touch with your body, is that you start to see different patterns and when something is different that you've maybe eaten or that you did different with your activity, and it might have an impact on your sleep, for example.

And I was able to analyze consistently, because a lot of the recipes we were using at the time was incorporating some soy sauce and things like that, that typically have some- sometimes it's naturally occurring, and sometimes it's added MSG in it.

And every time I would have this very strange like not- I couldn't quite fall asleep. I was just like just below the surface of consciousness, if I could explain it like that.

And it was just like- it was terrible. It was just terrible sleep whenever I would have it close to bedtime.

And sure enough recently, because it's been a couple of years since I've gone out, and we went to P.F. Chang's.

I've never been. I wanted to know, what's the big deal? They've got the statues outside, the big horse sculptures. I'm like, "It must be something."

So we had P.F. Chang's for dinner, I had some dishes that had some soy sauce in it, and sure enough I had that crummy sleep that night, especially like the first phase and trying to fall asleep.

My sleep latency was disturbed, which is literally the opposite for me 99.9% of the time, and I knew, "Okay wow, it really does affect me."

Now everybody's going to be different. It might not have that kind of an impact on you, but this is something that I want to make sure you have this information in your possession because it might be helpful for you now, maybe later, and also for the people that you care about potentially.

And what I want to share is this. The final straw for me in putting this on the list that broke the sleep deprived camel's back was a 10-week study cited in the journal 'Pediatrics' reported that more than 50% of hyperactive children showed fewer behavior problems and less trouble sleeping when they implemented a diet that was free of artificial and chemical food additives including monosodium glutamate and the next culprit we're going to talk about on our list.

Specifically those two things were the main things that they pulled out, which we're going to get to that in a moment.

But I wanted to make sure that you know some of the hidden names of MSG because sometimes it won't say monosodium glutamate on the label.

This could be in the name of hydrolyzed vegetable protein, or textured vegetable protein, yeast extract, seasonings. What is seasonings? Just tell me what the season is.

And again, sometimes companies are doing the right thing and they're literally- it's maybe a secret ingredient of seasonings, right?

Maybe it's just a little sea salt, a little sugar, some paprika. I don't know, but sometimes it's just a blanket way that you can slide some MSG in there as well.

So just keep that in mind. What we want to do is if you do potentially have some issues with MSG and things like soy sauce, just make sure that you have it a little bit earlier in the day.

It doesn't bother my sleep if I have it for lunch, for example, because my body can have time to metabolize it. But this might be something you need to pull out completely.

And even hearing that study with the kids, that is really something to think about, and to really support and protect our babies.

Alright so that's number one on our list of these four hidden things that could be destroying your sleep quality. Let's move on to number two.

There was a study conducted by researchers at Wayne State University School of Medicine, and what they discovered was that having a cup of coffee or even caffeinated tea too close to bedtime can be terrible for your sleep quality.

What they did was they gave test subjects caffeine right before bed, and/or three hours before bed, and/or even six hours before bed, and found that even six hours out, that caffeine consumption led to measurable disruptions in their sleep quality.

So caffeine can be a big problem. That's number two on our list with disrupting your sleep quality.

Now there's a clear distinction that I've got to make right here because there's a difference with the objective and subjective experience with this caffeine consumption and sleep.

So in this study, the test participants subjectively thought that they got the same amount of sleep. We'll just say it's eight hours, but objectively using a sleep monitor, they found that the test subjects when they had caffeine even six hours before they went to bed, they lost about an hour of their sleep.

An hour of their sleep quality was lost. Alright? So they might think subjectively, 'I slept for eight hours.' Lost a full hour because of caffeine being active in their system.

Now what is going on? First of all, full disclosure, I'm a fan. I'm a fan of caffeine. I think it's a gift. I think it's great, but it all needs to be in its proper perspective because we could definitely abuse it, and we can use it in ways that definitely can hurt us.

And one of the things about it is that caffeine has a half life of on average about five to eight hours.

So that means- we'll just say you consume 200 milligrams of caffeine, and that's a normal we'll just say cup of coffee.

So half life is after- we'll just say the half life is eight hours. So if you consume 200 milligrams, eight hours later, half of it is still active in your system, so 100 milligrams.

And we've got to keep in mind that caffeine is a very powerful nervous system stimulant. And then after that, eight hours later, half of it is still active in your system.

So half of the hundred, so fifty milligrams. That could be enough to stir up the pot. It could be enough to stir up the kittens in your mind. What? Why'd I say that?

It could be enough to really cause disruptions with your sleep quality. So keeping that in mind, number one, caffeine is a very powerful nervous system stimulant.

Also caffeine, what it does directly, is it elevates your cortisol and adrenaline. Those are part of the reason why you get the stimulation from it.

So it causes the secretion of stress hormones. Alright? So that's the second thing. But I also want to share this with you because caffeine doesn't 'give you energy' in the exact way that we tend to think it does.

So we have the aspect of being a stimulant, yes. But a more interesting aspect in how it makes you feel like you're energized or not tired is that it has this really interesting connection with something called adenosine.

Now everyday while you're awake, neurons in your brain are firing and producing a neurotransmitter byproduct called adenosine.

Now adenosine is not some- for years it was just considered like a waste product, a throwaway product, but it's not that because as adenosine is being produced, it fits into receptor sites that start to nudge you to go to sleep.

So this adenosine production, as it's being made in your body, it is fitting into receptor sites that start to make you tired, sleepy, relax. Alright?

Now here's the interesting thing about caffeine. Caffeine has the ability, because it's so similar in its structure to fit into receptor sites for adenosine, and so it can just sit

in there, in those receptor sites, like a family member overstaying their welcome on your couch.

And it just sits there, and your body is continuing to produce adenosine which is going to nudge you to go to sleep, but it can't get into the receptor site.

And so you actually don't even know how tired you are. So I hope that makes sense. Because the caffeine is sitting in the receptor sites, adenosine can't do its job to start to nudge you to go to sleep, to relax, to take a nappy.

Now listen to this. What does this do over time is the question, and it starts to really throw off the normal rhythm or the actual normal functioning of your endocrine system and your nervous system, which is this beautiful symphony that's always working to keep you well.

And so what happens when you have all of this buildup, and you don't actually shut things down, and sleep and relax like your body is wanting you to do?

This can lead to elevated levels of stress hormones specifically, which can lead to a whole host of problems from issues with anxiety to accumulation of excess fat and to obviously sleep deprivation.

So just keeping that all in context, this is one of the things that caffeine does. So if you're going a little bit too hard with the caffeine, this can definitely cause some problems with your entire circadian rhythm.

So these are all aspects of the interaction that caffeine can have in relationship to our sleep and our health.

But again, I'm a fan and I believe that we can take advantage of it and use it in an intelligent fashion, and it could be great. It could be great.

But here's a couple of things that I want you to keep in mind to do so that it's not causing issues with your sleep.

I'm a big fan of consuming caffeine in the early part of the day because just even in the cycle of cortisol secretion, you're supposed to get a cortisol kick in the morning.

That's a natural cortisol rhythm, and I think it can support getting that rhythm on track for a lot of people who are- clinically we call them tired and wired, where the cortisol is too low in the morning, causing a difficult time to get out of bed, and it's too high in the evening, and they're just up.

So this can help to reset that if we're having some caffeine in the morning for some people.

And so what I would recommend is to have a caffeine curfew; just a time that we shut it down and we don't have caffeine the rest of the day, and that can be really helpful.

And it depends on your metabolism for caffeine, because again, it could be somewhere on average five to eight-hour half life.

Some people metabolize it even faster than that and some slower. Some might need to cut it out totally, whereas others can have it a little bit later in the day.

But I would not- just say you trying to get to bed by 11:00. I would still give myself a solid eight hours, preferably more, but a solid eight to be done consuming the caffeine.

I prefer even before noon, but in our culture, we don't really think about this a lot. When we go to a nice restaurant, and then after you're done with your meal- we're out for dinner, it's 8:00, you're kicking it, you're gazing into each other's eyes, and then the guy comes over and he's like, "Would you guys like a cappuccino? Coffee?"

What? No, actually. And it took a while for me to really listen to it because I would just be like, "No," I just never really thought about it.

And it hit me that people do that, because they're asking for a reason. Obviously people are doing that. They're hitting that cap.

They're hitting that chino at night right before bed, and then wondering why they're going to have issues sleeping.

And again, this might not be conscious, and the next day, maybe they had some wine or whatever, and they're having this hangover, and these two things are competing and causing these different endocrine and nervous system issues, and stimulation, and deprivation.

So just keep this stuff in mind, and maybe hopefully this can help you to think a little bit differently when you're out to dinner, and whether or not you're going to have that cup of coffee at 9:00 at night. Probably not the best idea.

Now another small thing I want to direct your attention to is it's not just coffee that can be the issue. It's not just tea, caffeinated teas, but there are some other things that you might be- chocolate.

Having a nice amount of chocolate in the evening might cause some issues, but chocolate also has some other compounds that are more relaxing too. But for some people it might be an issue, even having a hot chocolate in the evening.

So just keep that in mind. What are the substances that we consume on a regular basis that have a nice amount of caffeine in it?

Another one is kombucha. Let me tell you, this was one of those things. I would have kombucha in the later part of the evening, and it would cause that same weird kind of not really falling asleep sleep for me.

And I didn't realize that it can have a potentially pretty high amount of caffeine in it because it is fermented, and using of course the kombucha, the mother is what is called, but also it's generally going to be a caffeinated tea that is used as kind of the base for making the kombucha.

And so it will cause issues with me sleeping, and also it can have a nice amount of alcohol in kombucha. I don't know if you knew that.

In some states, like actually it's a warning on the bottle. It's like you've got to be 21 to buy the kombucha. And I experienced this. I remember I was driving home, I was in the passenger side with my wife, and we were young in our marriage still, and I'm sipping on a kombucha.

And she's driving, which is rare by the way. I'm usually the one putting in the miles but I was kicking back, I was sipping on some kombucha, and everything just got really funny to me.

You know, I was just like laughing about silly stuff, and just laughing, and I couldn't really stop laughing. It's like what's going on? She's like, "You sound like you're tipsy," and I was like but I'm just drinking kombucha. Stop. Stop it."

And I'm just laughing about that, and come to find out, yeah it does have a nice little bit of alcohol in there too, which again could cause issues with sleep.

Is alcohol proven to help us to fall asleep faster? Absolutely. It absolutely does. But one of the things that it can do is something called a rem rebound effect and our REM sleep specifically gets damaged when we have alcohol too late to bedtime.

So alcohol could have made this list as well. I might throw in a couple of bonuses. That is a bonus actually. Alright? So having an alcohol curfew, giving your body some time, and also nature's solution to pollution is dilution.

Alright? So helping your body to process. What happens if you drink alcohol? You tend to pee a lot more because your body's just trying to flush it out.

You know, so support your liver, and your bladder, and your kidneys, and just having a little bit more water can really help to eliminate sleep issues and hangover symptoms.

The hangover experience is just a result of having damaged REM sleep. That's why we really experience that with alcohol. So just keep that in mind as well.

Now I also want to share with you a little hack when it comes to the caffeine side of things because sometimes there's going to be a situation where maybe you're working late, or maybe you are in that kick it- you know like it's 9:00 with friends, and you're going to be out for a while and you're going to order that chino. Alright?

You're going to hit the chino. And so what do you do? Here's a little hack for you, and this is using L-Theanine. Alright?

L-Theanine acts as an effective counterbalance to caffeine. Now this is an amino acid that also is considered to be in the camp of nootropics, which are substances that may improve cognitive function.

In fact, a placebo controlled study published in the journal 'Nutritional Neuroscience' found that versus consuming caffeine alone, taking L-Theanine and caffeine in combination are significantly beneficial for improving performance on cognitively demanding tasks.

Alright? So just taking caffeine alone versus having caffeine with L-Theanine, the test subjects performed far better.

Now it's also known to amplify these alpha brainwaves. So we talked about alpha being the transitional stage as a lot of folks- as we transition into sleep.

But this can be a waking state as well that allows for a kind of calm centered focus. Now it's also a natural anxiolytic, meaning it reduces anxiety in humans and can even reduce blood pressure and normalize heart rate.

And it does this by reducing levels of stress hormones like cortisol, while substances like caffeine elevate cortisol. Alright? So you see how this is a really interesting counterbalance now.

L-Theanine has also been shown to boost levels of GABA in your system as well, and other hormones and compounds that promote calm focus, regulating mood, and good sleep. So GABA is related in that track as well.

GABA is an important neurotransmitter in the central nervous system. In fact, it is the major inhibitory neurotransmitter in the brain which means that it blocks the action of excitatory brain chemicals. Alright?

So L-Theanine, this connection to GABA is another way that it can support kind of counterbalancing caffeine and helping you to sleep.

So if you've had caffeine a little late, or a little bit too much, try some L-Theanine. It's a little hack for you, but just keep in mind like with any supplement, it should be respected and not overused because this is a supplement. It's not real food.

We want to focus on food first and then supplements to be supplemental to the good stuff that we're doing.

Alright, so there's another little strategy for us addressing the caffeine issue in our sleep, but also simply taking some time off and cycling caffeine is a really great tool.

And I personally do that. So maybe if you're having caffeine five days a week, maybe take two days off. Or maybe you're doing it pretty consistently for a month, and then maybe take a week off or cycle things.

We should really cycle just about everything that we do unless it's a tonic, which is something that is- historically that it's used daily and it just has a more and more beneficial effect as it kind of accumulates or has an exponential benefit for you. But most stuff needs to be cycled.

And so I would cycle my caffeine. Alright, so that's number two on our list of these four hidden things that could be destroying your sleep quality.

So now we're going to move on to numero tres. Number three here on our list is going to probably trip you out a little bit and something that can be potentially damaging your sleep that is just incredibly widespread today, and this is based on a study and this was published in the journal 'Neuro Psycho Biology,' looked at the effect of electromagnetic fields like that of WiFi and cell phones and the impact that it has on healthy human test subjects.

The study results found a REM suppressive effect with reduction in duration and percentage of REM sleep when exposed to WiFi, cell phone radiation. Moreover, researchers discovered qualitative abnormalities of the EEG signal. This is used to measure the brain's electrical activity during REM sleep.

So these exposures that we're all just pervasively exposed to today has an impact. It can literally damage your REM sleep.

The researchers said, 'Knowing the relevance of REM sleep for adequate information processing in the brain, especially concerning memory function and learning processes, the results emphasized the necessity to carry out further investigations on the interaction of this type of electromagnetic field and the human organism.'

What we've got to understand is that this is a new technology. This is something that we have not been exposed to throughout our evolution as humans. This is very, very new, and we don't really know the long-term ramifications.

We're playing with these energies and we don't know how they interact and could be affecting our bodies now. Let's just get real basic for a moment here, just using our common basic simple knowledge base.

We understand WiFi, for example. WiFi can go through walls, floors, ceilings. It can go through all this stuff; you think it can't go through you?

You think it's not going into your body, and through your body, and interacting with your cells? It absolutely is, it's just it's Captain Obvious because more so than the walls and the floors, you are a much more permeable and even conductive entity than your floors.

Right? And you are an electromagnetic being yourself. And so of course these things travel through us and interact with our cells.

And this is one of the things that we're seeing is that it can cause issues with cellular communication, thus issues with hormones, and neurotransmitters, and just how your body is functioning.

We don't know again the long-term ramifications but I just want to put a spotlight on this for us to think about it.

And we could do some things to potentially limit some of the exposure because we don't really know yet, but we don't need to walk around with the tinfoil hats because you know, I like WiFi. Okay?

When I get on the plane, give me the WiFi. Alright? Let me get that WiFi password whenever I go to your house. I need that. All right. But if we could put this in a little bit of perspective.

And so what I want to share with you, and this is direct from Chapter 12 in my book 'Sleep Smarter,' and this says, "Researchers at Lboro University Sleep Research Center in England set out to test the impact of cell phone radiation on the human brain.

In this study they strapped cell phones to the heads of study participants and monitored their brainwaves by EEG while the phone was switched on and off by remote computer.

The experiment revealed that after the cell phone was switched to the talk mode, as if you were on a call, brain wave patterns called delta waves remained depressed for more than an hour after the phone was turned off.

These delta brainwaves are the most reliable marker of deep sleep. A significant portion of your sleep consists of this stage and interference with it will have a noticeable effect on sleep efficiency, which is exactly what the researchers observed.

When the test subjects were allowed to go to sleep, they ended up remaining awake twice as long after the phone was shut off. They could not fall into deeper levels of

sleep for nearly one full hour after the cell phone radiation stopped playing hide and go seek with their brainwaves."

Now again, that's directly from 'Sleep Smarter,' Chapter 12, maybe you want to check that chapter out again, or if you haven't read 'Sleep Smarter' yet, what?

Make sure you grab yourself a copy. You could even grab the audio book, and this is just crazy. You know, just being able to see it directly impacts your brainwaves. That's nuts. That's nuts.

And so yeah, there's recommendations out there about not holding your phone up to your head, but what do we do? It's a phone. It's a phone, what do you expect? But we don't have to sleep with our phone right on our pillow with us, because right now we've got millions of adults who are sleeping with their phones.

And it's just a very- again this is new and this is an abnormal behavior that could have some abnormal side effects. So what are some of the things that we can do for supporting our own health in our sleep as far as WiFi exposure and cell phone radiation?

Number one, something very simple is to put your phone in another room when you go to bed potentially. And some people might- "I just can't do it. It's like putting my arm in another room. What- I can't."

Listen, there's a 99.99% chance everything's going to be okay. The world is not going to end because your phone is not right there next to you on your pillow. Alright?

You're going to be all right. If the world ends, I'll call you. But your phone will be in the other room so don't worry about it. But anyways, you're probably going to be okay. Alright?

So at least giving some space. All right so if you do have it in your room, because a lot of folks will be like, "Shawn, well it's my alarm clock. How am I going to get up?" Get an alarm clock. Get an actual alarm clock if your phone is your issue.

Because some folks, it's the last thing we do before we go to sleep, we stare at our phones which we know the impact that it has on increasing cortisol and suppressing melatonin. We've talked about that many times in the show.

Or if you happen to wake up, we don't do like our ancestors did, which they would have these dual phases of sleep basically, those dual sessions sometimes.

You can sleep through the night or some folks historically would wake up, go to bed when the sun goes down first of all, so you have time to do this, and maybe they sleep for four hours, then they get up and maybe they write by candlelight, or they

eat, or they have sex, or they do some reading or talking, but then they go back to sleep for another three or four hours until the sun comes up.

And so that's normal, but today if you happen to wake up, and your cell phone's right there, you're screwed. You get on your cell phone. Guess what's going to happen?

Stimulation of your brain, elevation of stress hormones. It's just the name of the game, so let's get a better relationship with our device. So that's number one.

Or if it is closer to you, put it on airplane mode at least, right? Put on airplane mode just as a little safeguard.

It's a tiny thing, but these tiny things might accumulate, and we might know years from now that, "Oh wow, these cell phones being next to us while we're sleeping was an issue."

And so I don't want you to be that much of an experiment right now. So that's that. And also something that I do that I learned from Katie Bowman, I put my WiFi on an electrical timer.

So it's just a little simple thing I got from Amazon, it's just- you know, it was like \$10 maybe, and it sets your outlet on a timer. So we got the WiFi plugged into that, and it just will basically shut off at a certain time.

I could set it for 11:00 at night and then set it to come back on at 5:00 a.m. or whatever the case might be. But just giving my space in my home, some time to not have that pervasive WiFi umbrella just bathing- that we're bathing in it.

Now this might be a little bit- this is even on the edge for me of being like a little bit concerned because we don't have enough data. But I have enough data to make me cautious and to make me ask questions, and so that's all I want you to do.

You know, we don't got to break out the tinfoil hats like I said, but we do want to start to pay attention to this because we're only going to learn more and more and more as the years go on as far as our exposure to WiFi and our cell phone radiation.

So that's number three on our list of these four hidden things that can be deeply damaging your sleep quality. So let's move on.

Now we could move right to number four but I want to add in a bonus one because I think this is very important for us to talk about this, and this is something that I took a chance on even putting this information into 'Sleep Smarter.'

And I'll tell you why in just a moment. But renowned scientist and chemist James Brought, PhD, he believed that sudden infant death syndrome, or SIDS, can result from a variety of causes.

But he felt that the number one concern was toxic gases and off gassing of these mattresses generated from what the babies were sleeping on.

And he asserted that these compounds contain phosphorous arsenic and other things that were added to mattresses, and still are for other purposes as early back as like the 1950s, and today some of these compounds used to treat mattresses have actually been banned.

Alright? They've been banned for example PBDEs, and PBDEs were used as a flame retardant, but a 2003 study published in the 'Environmental Health Perspective' found that PBDEs were being found in alarming levels in mothers' breast milk- in U.S. mothers breast milk.

In a 2001 study found that PBDEs were linked with behavior abnormalities, and this was around 2004 where legislation outlawed them, and they'd been phased out.

But since then, it was determined that chemicals - these PBDEs - were toxic to your liver, thyroid, nervous system, and again, they've been phased out because of that. But just what?

These are things that we've been doing and not really asking these questions. And so this is what I wrote about here in 'Sleep Smarter' about his discovery because there was a really important nationwide program that took place in New Zealand to protect kids and prevent SIDS- sudden infant death syndrome.

This was back in 1994, and understanding this startling data regarding the hazards of off gassing mattresses, healthcare professionals throughout New Zealand actively advised parents to wrap their new baby's mattresses in an inexpensive non-toxic protective covering, and over the following twenty year span, there was not one single SIDS death reported among the more than 200,000 New Zealand babies who were sleeping on mattresses wrapped with a protective cover.

While there was also 1,020 crib deaths reported since the mattress wrapping campaign began, none of those children were sleeping on the beds that were properly wrapped.

And this is a tough conversation because we're talking about our babies, we're talking about our kids, and it's just a sensitive subject, but I think that we shouldn't turn a blind eye to something like this.

And you know, just a massive application done, and looking at how can we better protect our kids? Because it's not just the fact that they have these chemicals and it's off gassing and this kind of thing, but also some of the things that may be causing these reactions are how bacteria and fungus as mattresses are used over and over and over again.

You know, the passing it down kind of thing. Like I slept on a mattress when I was a kid, probably two people before me slept on, you know.

But bacteria and fungus interact with those chemicals and they can cause even more strange off gassing. And so for me, I really took a chance.

You know, I knew this research and I knew that though it's controversial, I wanted to share it just to err on the side of caution when it comes our kids.

And I'm looking at it right now, and the note from my publisher, and just saying, "Are you sure you want to put this in here? We know that the data is pretty solid, but it's controversial and this could impact some sales."

And I definitely wanted to put it in there, and true story, I was approached by the number one furniture company in the world who wanted to buy tens of thousands of copies of 'Sleep Smarter.' Right?

I don't know how they found out about me. They might have heard a talk, or maybe they listened to the show, somebody who's a big person in the company.

And they reached out, and everything sounded great. Like I wanted people to have this information because they're selling mattresses, and just having that experience of knowing that our sleep isn't just about the mattress but our overall lifestyle.

So I was like good to go with it. But I was also like, "Did you read Chapter 15? Did you not get to that part yet because I'm kind of talking about the mattresses that you sell, and how I cannot be an advocate for those mattresses."

And sure enough, went cold, conversations just diminished, and I guess they got around to reading that chapter, and I took that risk. That could have been a small fortune for me, and who knows what else, but I don't care.

It's not about that. It's about doing the right thing. You know, and a lot of this stuff we don't have the full story on, but we do have an obligation to share what we know, and to share what we've experienced, and just to be supportive of moving our culture forward.

Like a lot of stuff that we've done, like we've been figuring out along as we go, but it hasn't been the best thing for us, and that's okay.

It's not saying that these companies are bad people that are doing things blatantly to hurt people. It's just a common practice and we didn't know. But now that we know, let's change things.

And so I just wanted to share that with you, and to be aware that we spend one third of our lives approximately on our mattress, and it matters what mattress you're sleeping on, and understanding that we probably don't want to sleep on mattresses that are treated with these crazy chemical flame retardants and these synthetic chemicals.

And also realizing that we actually have a choice today because we're more aware, and it's not just that part, but also there are about 70 million people every year that are having physician visits for sleep related pain.

Right? Back pain, shoulder pain, hip pain related to the surface that they're sleeping on because of the loss of mattress resiliency is what it's called.

Because when you lay down, your hips are the heaviest part of your body. And this can lead to some dysfunction and abnormalities in the curvature of your spine.

And so for me, knowing these things and also knowing about thermoregulation, which is important for optimizing your sleep cycle.

There's a natural drop in your core body temperature at night to facilitate sleep. We do not like to be too hot when we're sleeping. We all know how that feels.

But this is one of the things that has been found to disrupt your sleep cycle, which we've talked about multiple times throughout this episode, is if you're running too hot.

And many of these fancy, super luxurious memory foam mattresses, and Sleep Numbers, and all this stuff, they have these materials, this memory foam that generates heat.

Not only is it not supportive of this thermoregulation, but it can make you run a little bit hotter, which is one of those things causing you to have interrupted sleep cycles.

And so for me, knowing these things, I was dedicated to finding like what is the number one wellness mattress that has the best mattress resiliency, that sleeps cool, and that is not treated with all those crazy chemical flame retardants and other synthetic materials like boric acid is still commonly used today.

And for me, that brought me to Intellibed, and Intellibed, which is unlike other mattresses in that it's three times more supportive than memory foam, yet it cradles your hips and shoulders to relieve pressure points up to 80% better than other mattresses, and it sustains that mattress resiliency so long that they actually have a 20-year warranty on their mattress.

It is not some pro-rated like little loophole trickery. Twenty year mattress because it is so good and it is utilizing this patented Intelligel, which again, it sleeps cool and it

really helps to support in that mattress resiliency and giving you the support where you really need it.

It's the number one wellness mattress, sleeps cool, and I'll be sleeping on Intellibed for five years, probably longer than five years now, and I got Intellibeds for all my kids as well. And I highly recommend checking them out.

You can actually speak to one of their sleep experts to find out the very best mattress for you because it's going to depend on what your needs are as far as the mattress resiliency, the firmness, that kind of thing.

So head over there, check them out. It's www.Intellibed.com/modelhealth. That's www.Intellibed.com/modelhealth, together as one word, and you can check out a very, very exclusive discount for your mattress that only happens for my audience.

They also are giving you a free mattress covering and free delivery as well. And I just recommend talking to one of their sleep specialists over there. So www.Intellibed.com/modelhealth.

So that's thrown in there as a little bonus is to be mindful about our mattress and the actual surface that we're sleeping on.

So let's move on to number four, the official number four, it's really number five here on the list of these four hidden things that could be destroying your sleep quality.

And number four, this is a tricky one. This is a trickster. Did you know that in DC Comics, there's not just the Joker, but they also have the Trickster. Alright?

He doesn't get the accolades, he doesn't get the- I think the Trickster was legit just like a jerk. You know the joker kind of had some swag, but the Trickster would like legit give you like a present with like some dog poop in it or something. I don't know.

But he's not a popular character, just neither is this one. Well actually this one is super popular, but not for good reason. Alright?

The reason to be popular for something positive, not this one, and number five here on our list is sugar. Sugar.

Now we all know about sugar for issues related to diabetes, and obesity, and even cancer. But there was a study conducted by researchers at Columbia University that revealed that people who ate the most sugar in their diet throughout the day experienced more intrusions in their deep sleep cycles.

Basically they were being pulled out of deep sleep more frequently without actually waking up than those who ate less of the sweet stuff. Really, really fascinating.

The lead author of the study also said that too much sugar can delay your body's release of melatonin. Now we know melatonin to be this glorified sleep hormone, but it really helps to regulate your overall circadian rhythm.

It's a powerful anti-cancer hormone, anti-obesity hormone, because melatonin actually increases your body's production of mobilization of something called brown adipose tissue that is a type of fat that burns fat, and list goes on and on.

Now in relationship to this, we know about the sugar crash. So we just heard that even having sugar early in the day, like a high amount of sugar can end up causing you to have suppressed dysregulation with your deep sleep.

But let's talk about it in context of like what if we have sugar close to bedtime? We all know about that. We've had this happen before, we get that good sugar crash.

Maybe you go to IHOP. Alright? First of all, what happened to International House of Pancakes? They were just like, forget it. Like it's just too much to say. I don't appreciate that. I liked saying it.

It's like international. I'd never been international. I barely left my city at that point. Now it's just IHOP. IHOP. As I digress.

So maybe we get the itis, right? We have that sugar crash, it's a good sugar crash. You had the pancakes, or you know whatever, candies, cookies, whatever, and you have the subsequent crash that takes place.

You go into the itis, little food coma takes place, you've all done it. Sometimes it can feel kind of good. You get pancake drunk, but here's the problem.

Research indicates that we have that sugar spike which can be kind of a stimulation, and then we have that crash take place.

Now depending on the timing of things, because I literally for a time in my life, I would eat two bowls of cereal and a banana before bed. I'm talking like 30 minutes before bed. It was my evening routine, and I was all about that honeybee.

You know what I'm talking about, and I was all about that guy, and the banana and I thought it's whole grain. It said on the box it's heart healthy.

And so what could take place is you might go to sleep, but then you have this- you can go hypoglycemic when you go to sleep, so your blood sugar gets spiked and then it just crashes, it goes down during sleep, and it won't necessarily be enough to wake you up, but there's going to be a stress response.

What happens when we go hypoglycemic? It's a stress response by your body because your blood sugar needs to be stable for survival. So it's going to be a release of stress hormones like cortisol, and cortisol, guess what it does?

It has this inverse relationship with melatonin. So cortisol can literally suppress melatonin. So you might be thinking, "I'm going to sleep, and I'm going to get a great night of sleep and I'm going to get my eight hours," but you're not producing adequate melatonin, or you're producing abnormal stress hormones and it's interrupting your actual sleep quality in the stages of sleep.

Which again, it's between 75 to 120 minutes, we'll just say 90 minutes on average for each of the sleep cycles, but we go through all four cycles in those 90 minute increments, and this can cause issues with going through those cycles normally.

So I hope that makes sense, and so we want to be really mindful of not having too much carbohydrate before we go to bed.

But here's also what the study found, was that eating more fiber was linked to spending more time in deep slow wave sleep. Wow. I didn't know fiber could do that.

I knew it was like- you know, we think about in terms of poop. Right now I'm thinking about the Guardians of the Galaxy 2, Drax.

I don't know why I'm thinking about this, but Rocket the Raccoon- well he's not really a raccoon, don't tell him that. But he got into an argument with the main character Star Lord played by Chris Pratt, and he was like, "When you go to sleep, I'm going to put a turd in your pillowcase."

And he's obviously like, "Don't do that. That's terrible. That's disturbing." And he's like, "I'm not going to put my turd," because he's a little guy. He's was like, "I'm going to put one of Drax's turds in your pillowcase." And Drax was like, "Haha, I have famously enormous turds."

Now listen to this, because when we think about fiber, we tend to think about it in terms of digestive well-being and being 'regular.' But according to this research, eating more fiber is linked to spending more time in deep anabolic sleep. Incredible.

The research suggested that it's possibly because fiber slows down digestion and doesn't cause a spike in blood sugar levels like many empty carbohydrates do. So this goes back to what I was saying about the timing of when you're consuming the carbohydrates.

Also, the type of carbohydrate you're consuming could also be a big player in whether or not you're getting great, high quality sleep.

And so understanding how sugar is on this list and one of these things that could be behind the scenes causing issues with your sleep quality.

Now this is something for us, it just adds another layer of understanding when we're really working to transform our lives, transform our bodies.

It's not just to avoid sugar because we're trying to get six pack abs. It's more so understanding the things behind the scenes that really control your body composition like your sleep quality, and understanding that when you're sleep deprived, guess what happens with your hunger for sugar? It goes up.

Ghrelin is increased, leptin is reduced, and you are just generally going to be wanting more sugar, and it creates a vicious circle because the sugar consumption is going to cause issues with our sleep.

So we need to break the pattern ultimately and really focus on our lifestyle factors to improve our sleep quality by avoiding some of these crazy kind of hidden things, and also incorporating positive things that we know is going to help us to improve our sleep.

And so simple here for this particular one with sugar, finish- if you're having some dessert or something sweet, have that in a little bit earlier part of your day if possible.

Give your body, again, a couple of hours to just process and get normalized with your blood sugar in there, your pancreas and glucagon, all this stuff to get normalized.

And also, let's choose higher quality carbohydrates, especially in the later part of the day.

So instead of going for the white rice, maybe we're doing some sweet potato. Not to say that you can't have the white rice, so maybe you do some sprouted brown rice and just making sure that we're giving it a nice amount of fiber, because now we understand how important fiber is for our sleep cycles.

Alright? So I hope that that makes sense in just finding ways to be more creative, in going a little bit easier on the sugar period.

We know that sugar is highly addictive and has so many detrimental impacts on our health, but for some of us, we think in terms of like sugar as this bag of white stuff, but there's sugar in so many different food products in different forms. Right?

Fruit is a sugar dominant food, but it's going to have a different impact depending on the type of fruit and how much you eat because of the fiber and the micronutrients.

But for some of us, it can tip us in the wrong direction, even fruit which is considered to be generally healthy. So just keeping that all in mind in and understanding the role that this stuff plays.

And I did a master class on sugar, it's called 'The History of Sugar,' and I promise you it is going to blow your mind. You'll absolutely love it if you happened to miss that episode.

We're going literally through the history, like where did this come from? Where did it start, and where are we at today? So definitely check that one out after you wrap up this episode. I think you're going to love it.

So we want to shift over ultimately and incorporate more of the other- more macro nutrients, which are instead of carbohydrate dominant, adding in a little bit more healthy fats, a little bit more high quality proteins, and just shifting that ratio to support our sleep, because sugar can definitely be a culprit that's damaging our sleep quality.

So I hope you got a lot of value out of this episode today, and thank you so much for hanging out with me. And if you did, please make sure to share this out with your friends and family on social media, and you can tag me of course. I love to see that.

I'm @ShawnModel on Instagram and Twitter, and I'm @TheModelHealthShow on Facebook, so definitely share this out with the people that you care about, and tag me, and I appreciate that so very much.

And we've got some incredible guests and incredible show topics coming up for you very, very soon, so make sure to be ready. Alright? I appreciate you immensely. 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 www.TheModelHealthShow.com. That's where you can find all of the show notes, you can find transcriptions, videos for each episode, and if you've got a comment you can leave me a comment there as well.

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