



**Episode 426: Everything You Need to Know About
Sleep and Melatonin With Lisa Shank**

Child: Welcome to my Mommy's podcast.

This podcast is sponsored by Flying Embers, a better-for-you alcohol brand that brews Hard Kombucha with probiotic-powered Hard Seltzer. All of their products are zero sugar, zero carbs, USDA certified organic, and brewed with live probiotics and adaptogens. They're also all keto, gluten-free, vegan, and low in calories, so they're a great option for a functional low-calorie drink that is delicious. I love their flavors. They have some really unique ones, like Grapefruit Thyme and Guava Jalapeno, and I'm a big fan of their Clementine Hibiscus. All of their products are artfully crafted with a dry fermentation process, which gives the Hard Kombucha a perfectly balanced natural sweetness that tastes amazing despite having zero sugar and carbs. We've worked out an exclusive deal just for you. Receive 15% off your whole order. To claim this deal, go to flyingembers.com/wellnessmama and use code WELLNESSMAMA at checkout and the discount is only available on their website. And they're also available nationwide at grocery stores, anywhere you find beer and hard seltzers, but check out where to find them and get the discount, flyingembers.com/wellnessmama.

This episode is sponsored by PaleoValley, they are my go to source for grass fed probiotic rich beef sticks and now some of my favorite supplements as well. They have a vitamin C complex made with three of the most concentrated natural sources of vitamin C: amla berry, camu camu berry, and unripe acerola cherry. Each nutrient-packed serving delivers 750% of your daily recommended intake of vitamin C – an amount meant to help you thrive, not just survive. Most other vitamin C supplements are derived from GMO corn and only contain one fraction of the vitamin – ascorbic acid. Their Essential C Complex contains the entire spectrum with absolutely no synthetic vitamin C at all... just organic superfoods! Check this and all of their products out and save 15% at paleovalley.com/mama for 15% off.

Katie: Hello, and welcome to the "Wellness Mama" podcast. I'm Katie from wellnessmama.com and wellnesse.com. That's my new personal care line, Wellnesse with an E on the end. This episode is all about sleep, cortisol, melatonin, and stress hormones, and everything you need to know about all of those. I am here with Lisa Shank, who has been in the natural products industry for over 20 years and she has studied various modalities, including functional nutrition, herbal medicine, and has served on various boards related to those. She is an expert in sleep and hormones, and especially we go deep in this episode about melatonin, which is often misunderstood, very commonly misdosed. And there's a whole lot of controversy surrounding how, and if, and when, and what dose it should be used at. We clear up a lot of those things today. And she also touches on a whole lot of things that you can do free at home that affect sleep and hormones. We even go into kids, and babies, and teenagers and sleep. Lots of implications. I know that you will learn a lot. I certainly did. So without further ado, let's join Lisa.

Lisa, welcome. Thanks for being here.

Lisa: Thanks so much for having me, Katie. It's great to be here with you.

Katie: It's great to be here with you too. And I think we're gonna get to tackle a really important topic from a lot of different angles today. And that is a lot of things related to sleep and sleep hygiene, but also going deep on melatonin, which has been discussed. We all probably are familiar with that in the context of sleep. But I am certainly seeing a lot of alert for that in PubMed and in the media right now for a lot of other applications. And it seems like it is semi-controversial and also semi-misunderstood. So I'm really grateful to have you here today to, kind of, sort through some of that and give us the real story. But thank you for your time and for being here. And to start broad, let's maybe jump in there and, kind of, give us a broad overview of what melatonin is, maybe and start within the context of sleep.

Lisa: Okay. Well, melatonin is a naturally occurring hormone that regulates our sleep cycle, our circadian rhythm actually, or the sleep-wake cycle as people might know it. It is produced in the pineal gland of the brain and it's released when the retina of the eye detects darkness. That's why we should be thinking of it more in relationship to light and dark as opposed to time of day. But what's also interesting about melatonin is that it is more than just a hormone. It's an antioxidant and it impacts inflammation. And it's been found to be produced in the gut and in a lot of other tissues in the body but our understanding around those functions and production is still really in its early days.

So, when you think of melatonin, you do really think of it as a sleep hormone mostly. But it plays just as important a role in helping us wake up as it also triggers our wake cycle. This is the time when the retina registers light. So, even if it is through your closed eyelid, you know, you're getting the signal of light, you're registering light. And so, it's more accurate to look at melatonin in relationship to light and dark versus day and night, as I said.

So, for instance, if you were to close the blinds during the day and take melatonin, it would trigger a sleep cycle. While if you take melatonin at night and then you sit in front of your computer with the light on, you know, the light coming at you from the computer, it will actually help keep you awake. So, I think that that's probably surprising to some.

Katie: And that brings up a really important point and one that I've talked about a couple times on here, but it would love to, kind of, really dial in, which is the importance of light in general and being able to use light as a tool for better sleep in various different ways. And, for me, some of the more profound ways I've done that are very soon after waking up in the morning, I've talked about this before, but getting outside, even if it's a cloudy day, you're exposed to such a wider spectrum of light when you go outside versus inside. And that begins this whole hormone cascade that signals things that are gonna be really important for circadian rhythm later in the day. And like you just mentioned, also avoiding that bright light or blue light after dark because that signals to the brain and to the body that it's still daytime when it isn't. And I think light is an often overlooked component when it comes to health and to sleep.

And, you know, people love to ask questions about supplements or biohacking and all these things. And I'm like, "If you haven't figured out your light and your sleep yet, like that's going to be the common denominator that makes all of those things are much more effective." And it's free. It doesn't cost anything to go outside in

the morning or to turn down lights and have like lower light at night. These are some easy things we can do. And as parents, it helps kids to sleep as well. But like you touched on, I think a lot of people think of melatonin in terms of a supplement. But melatonin is, first and foremost, a hormone in the body that we can manipulate certainly with supplements, but also like you already touched on through light. But what are some of the other factors that come into play with that melatonin cycle and, like, when does melatonin rise and fall during the day? What contributes to that?

Lisa: So that's a really great question and I'm really glad that you brought up the point about getting outside. There's a lot of data that really suggests that regular exercise routines, a healthy diet are all part of the essential aspect of that circadian rhythm that melatonin is influenced by as we already touched on light and darkness, but also there may be some dietary components to that. It has an inverse relationship with cortisol which people hear a lot about. And so it's going to have an effect on, you know...So if your cortisol is really high, it's going to suppress melatonin, it appears. And so, we want to pay attention to, sort of, our natural cycles. And so, as you said, getting outside being grounded, I'm a big, big proponent of getting outside with the kids, exposing them to full-spectrum light, that's going to reinforce that circadian rhythm and help make that sleep-wake cycle function more smoothly. You're going to want to not have stimulative dietary inputs later in the day that can affect melatonin and a person's ability to, kind of, ramp down for the day.

We also see that there's some relationship between melatonin and blood sugar. So, we want to think about how we're, you know, preparing kids for sleep. There's some suggestion that having a snack before bed is a good idea, you know, that it's gonna help regulate their blood sugar through the night. We think about hydration. It's really important to recognize that we lose fluids and electrolytes through the night as well. So you wanna be well hydrated through the day. So, there's some estimates that 75% of Americans are chronically dehydrated. So we wanna think about all of the elements about keeping our bodies healthy so that we're able to maximize the time that we have to sleep and are asleep if that makes sense. I didn't state that well.

So I think one thing that I wanted to say about hydration, which is that that's gonna have an effect on sleep is that hydration also regulates body temperature. It helps to lubricate joints, prevents infections, delivers nutrients to cells, and keeps organs functioning properly. And it supports a healthy mucous membrane, which is also gonna have an effect on the respiratory system. So, I don't think we often think of hydration in relationship to sleep. But I think that the overarching point I wanna make is how we live our daily lives and our daily routines are gonna have an effect on our nighttime routines and how well our body is able to function optimally in a sleep context.

Katie: That makes sense. And I think maybe hydration is another misunderstood area where there seems to be a lot of differing opinions on how much water do we actually need, how to figure out how much water we actually need. And also now there's an increasing conversation about getting enough electrolytes and minerals when we drink enough water. So do you have any specific guidelines or tips for making sure that we are hydrated and how to know when we've reach that point? I think one of my downfalls is I always seem to remember that more in the afternoon, and so I end up drinking more water at night, which then wakes me up. But any tips for navigating proper hydration?

Lisa: That's a great question. I think that's a habit that a lot of us get into is kind of, "Oh, I haven't had enough to drink so I'm gonna do it now." And then that, kind of, can create a problem later when you're sleeping, for instance. But I love sole, which is a form of Himalayan crystal salt that come in, like, a stone. And you put those in water and you allow for full saturation over a 24-hour period and then that creates a concentrate. Then you take that concentrate by 1 teaspoon and put that in your drinking water in the morning and you drink that on an empty stomach. And it will give you all your minerals and electrolytes for the day from a functional food. So it's really inexpensive. It's a great way to get those minerals and electrolytes from a natural source. And you will be amazed at the difference that makes in your energy level, your skin.

You ask how do you know, you know, about your skin or about your hydration? I think some of the ways that you can, kind of, tell about that are your energy levels. I don't think we think enough about hydration in relationship to our energy, how your skin feels. As I said, it lubricates joints and has a lot to do with, kind of, organ function. So, there's a lot of elements that are being affected with proper hydration. With respect to how much hydration, it's a great question also because there is a lot of controversy, or not controversy, but disagreement over that. I don't know that we've really reached a consensus. This seems to be the most common admonition is 10 ounces of water for every 10 pounds of body weight that a person has. So, you know, if you weighed 130 pounds, you know, thirteen 10-ounce glasses of water would be, kind of, an ideal.

But again, I like the Himalayan crystal salt as I mentioned and one of the other reasons I like that so well is because it's in an ionic form, which, kind of, helps the absorption of the water into the cell. And so you're getting better cellular hydration than you would if you just drink, you know, a glass of water. So, that's one thing I really like. I also think that, you know, you are absorbing hydration from the foods that you eat. And so you're looking at diet, what is the quality of your diet? If you're eating a lot of processed foods and that's the majority of the content that you consume, you're probably not getting much hydration in that respect either. So, thinking about hydration, broadly, thinking about how to maximize it, making sure you have those minerals and electrolytes onboard, those are really important elements to hydration.

Katie: Yes. And some of you may have seen there's some really amazing pictures online of people who were, kind of, chronically low level dehydrated and didn't realize it and then made an effort to be more regular about hydration. And the difference in their skin is incredible, just how much more youthful skin can look purely just from staying well-hydrated. I think maybe the time period when we, kind of, demonized salt or avoided salt a lot also maybe hurt that because people were afraid of consuming enough salt. And especially for women when it comes to hormones, it's really important to get enough minerals and electrolytes. I work with a company called LMNT, which is a hydration packet. But it was interesting that they've seen so many even like breastfeeding women who saw their milk supply drastically increase or saw, you know, hormones drastically improve just simply from getting enough hydration and electrolytes. So I think it's always great when we can go back to these simple things that make such a big difference like that morning light or, like, just simply getting hydrated, these things don't have to be expensive or complicated. It's just things we need to make a regular part of our routine for sure.

And okay, so I wanna circle back because we started talking about melatonin. I'm really glad we touched on hydration. But back to the idea of melatonin. So we know now that it is a hormone not just a supplement, I think a lot of people still trying to put it in that category of supplement but it also is a supplement. And from there are many, many different ways it can be used correctly and incorrectly from my understanding, you're certainly an expert on this much more than I am. But I'd love to hear you walk us through some of the indications for melatonin, what we're seeing in the data, and then what you have personally found in your research.

Lisa: Well, it's really interesting, actually, because we have been using a much higher dose of melatonin as a supplement than is probably necessary, depending on what you're talking about using it for. So, understanding that the body only makes between 0.1 and 0.8, it's important to look at that when choosing a supplement. Most supplements on the market start at about 3 milligrams. And there's an interesting history as to why that is. But again, looking at what does the body make naturally?

So, when we're born, we don't actually produce melatonin. However, it does start to increase to about 0.8 per day through our teens. And once we're adults, it balances out at about 0.3 per day until we're in our mid-50s, when it drops even lower to about 0.1. So as you can imagine, taking 3 milligrams per day as an adult can be 10 times what the body produces, which can result in a paradoxical or opposite effect, making it harder to fall asleep or in some cases, you might fall asleep okay, but then you wake up in the middle of the night and not be able to get back to sleep. So, it's been interesting to note that our circadian rhythm and melatonin productions don't start to develop until around the age of 3 months. And in fact, that's why some experts believe that babies may be experiencing colic early on. Even if it does develop, it starts to clear up generally about 3 or 4 months when it seems to correlate to the production of melatonin beginning. Or we know that colic can potentially be connected to the digestive system with muscle spasms, and belly pain, and that sort of thing. So, melatonin, it's produced in the gut, but not until after 3 months or so. And then it's believed to relax and smooth intestinal muscles. And that is why a lot of people believe that that colic starts to resolve at that point.

Also, fortunately, with newborns, we know that breast milk doesn't just introduce things like antibodies, white blood cells, probiotics, and prebiotics, but it also produces melatonin and cortisol. So, research has shown that cortisol, which helps us get going in the morning has also been found to be three times higher in morning breast milk compared to milk later in the day. So, by contrast, the levels of melatonin, which aids your baby's digestion and sleep, were barely present in the morning milk and much higher in the evening, peaking around midnight. So, that's why it's important that if mothers are pumping their milk to feed their babies at some other time, they wanna label not only the date but the time so that they give their babies their breast milk at the appropriate time of day with all of that in mind.

Katie: That's really fascinating that breast milk is able to adapt by time of day like that. And it makes sense, but that's really incredible. Never ceases to amaze me how the body can do that.

Lisa: Right. Well, what's happening in the mother's rhythm, right? So if her melatonin production is high at night, then her breast milk is gonna contain a higher level of melatonin. And conversely, in the morning, you know, her morning cortisol would be higher, and therefore, she'd have more cortisol in the morning in her milk.

Katie: And is that directly dependent on mom's levels of those things? So in other words, if mom doesn't have good sleep schedule and is getting blue light at night, and maybe her cortisol is out of whack a little bit, which can certainly happen postpartum, is that gonna potentially affect baby as well? So I guess asked another way, if mom's conscious of her sleep patterns, will that also potentially help baby sleep better?

Lisa: Definitely. There's definitely a lot of data on a mother's cortisol levels and its effect on breast milk, not only content but production. And so if she's very stressed and she's having trouble with sleep and, you know, her own health is being affected by her stress level, she is very likely to produce less breast milk, as an example, and potentially the quality of her breast milk will be affected.

Katie: Okay. That makes sense. So then what about as babies get older or kids, even teens, I know there's a lot of like sleep issues related to the teenage years and kids tend to, I'm seeing this with my teenagers right now, naturally, want to stay up a little bit later and also definitely want to sleep a little bit later. Are there changes in that sleep and melatonin production at other ages throughout childhood as well?

Lisa: Definitely. So, that's a great question. So children through their teen years produce nearly three times the level of melatonin that parents do. So they're physiologically designed to be able to sleep. And issues around supporting their sleep patterns is more related to sleep hygiene and making sure that you aren't doing things to inhibit their production of melatonin or spiking their cortisol production at the wrong time, which is, kind of, a chronic problem with teenagers, right? They have homework at night. They're sitting in front of the computer, or you know, they're exposed to a lot of light, whether watching TV or various habits. There's all kinds of lifestyle factors that can really, sort of, influence their melatonin production. And there's also something at that time of life called a delayed sleep phase in that the, you know, kids start getting into the teen years and their rhythm starts pushing a little bit, meaning that it's harder for them to fall asleep earlier in the evening.

So, again, that daytime sleep hygiene is gonna be so critical, and maybe even more so in this context because, you know, this is something...You know, my kids are in their 30s now. It's been debated for years over, you know, what time should school start as an example because they have younger kids going to school later and they have older kids going to school, you know, earlier, and they're starting to recognize with the science that, you know, with that delayed sleep phase, as I mentioned, then they should be going to sleep...you know, because they're going to sleep later, they maybe should have a later start date. Nevertheless, you wanna think about how much time is optimal for sleep and try to work backwards, right? So if you have to get up, you know, like, if your child has to get up at 6:00 in the morning, you wanna be sure that they're getting enough sleep. You wanna count back to the amount of sleep that they need and set the day up and your evening

routine in a way that allows them to have the amount of sleep that is necessary for them to function optimally.

Katie: That makes sense. And that's something I've thought about quite a bit as well. And previous podcast guest, Dr. Michael Bruce has said the same thing that teenagers would probably actually learn much more effectively if they could sleep a little bit later, just because of the way their natural sleep cycles work. And I know, in Europe, there's a few areas where they've experimented with this and seeing really good results for teenagers. And I know that's not certainly possible in every area or every school situation. But for anybody listening who homeschools, we have non-negotiable rules in our house, you don't ever wake the sleeping baby and you don't ever wake the sleeping teenager either, and letting them sleep as late as possible. I've let our older ones shift their schoolwork later in the day if they need to, to really prioritize sleep because, like you said, there's so many things happening at that point. I didn't actually know that they make three times the melatonin. It makes sense, though. But there's so many things happening in their body at that phase. I've always just intuitively thought that they really needed to prioritize rest, and sleep, and food just as rapidly as their bodies are changing during that point.

But when it comes to sleep issues, I don't think...certainly those don't go away when we are adults. In fact, they tend to maybe intensify. And especially the pregnancy, and postpartum, and new mom phase can be a time of a lot of sleep troubles, and also one that can be difficult to navigate because there's a lot of things that are not necessarily recommended when pregnant or nursing. So let's talk specifically to the moms right now of what are some sleep hygiene tips specific to moms and what can we try and not try during those phases of life?

Lisa: You know, honestly, I think that that sleep hygiene component to how we live is applicable across the board. In other words, thinking about how much sleep do you need? I think a lot of people really short-thread themselves on the amount of sleep that they get. I think a lot of people believe that they can get by on less sleep than they actually need. And it's interesting if you think about there's some studies that show that if you take people out camping, as an example, where there's not a lot of access to artificial light, that the average adult will sleep eight hours without interruption, right? Meaning if there's nothing to wake them they'll, on average, sleep eight hours. Children at various points, you know, need more sleep as they're growing. And I think the average, I forget the ages, but I believe that it's like 11 hours, kind of, through the adolescent period. And then by the time they're teenagers, they need a minimum of nine. So, if you're thinking about, you know, what time do you need to wake up in the morning, you work backwards. I think that's one of the first and foremost things to consider.

And then the other one, as you talked about earlier, is how do you spend your day? Get up, get out into sunlight. You know, make sure that you're having exposure to full-spectrum light throughout the day, getting good exercise, getting good nutrition, addressing stress levels, making sure that you're having time to address the things that take up your mental space. I think that that's not given enough consideration when you're a mother, you're taking care of everyone else. You know, the term self-care, my daughter loves telling me has become, kind of, like this not so positive phrase anymore because it's, kind of, faded with all of this expectation. But the reality is that you have to be able to fill your own cup in order to give to everyone else. So

with relationship to...You know, when you asked me about how mothers take care of themselves, I think that a lot of consideration has to be given to what do you need as a mother in order to show up fully as a parent, and as a spouse, and all of the other things that life asks of you? So, there's a lot of conversation around, you know, morning routines and rituals. How do you start your day effectively? I think that's a great place to start. But I'm not sure if that's exactly what you were asking me for.

Katie: Absolutely. I think you're right. There's also...Sleep hygiene applies to everyone. And as moms, we can be a good example of that for our kids. But it's also very important for us to do as well and working backwards from when we know we're probably gonna get woken up by kids. But also, I think there's an element of acknowledging that the newborn ages can be really tough for sleep. And sleep is not always gonna be able to be perfect as well, but to the degree possible, optimizing those things. And I always encourage moms, bring your kids with you, if you're gonna go outside in the morning and get that sunlight and drink tea or lemon water or sunlight on the patio, bring your kids with you, bring your baby with you. It will help everyone's sleep cycle later in the day. And the easier the kids sleep, typically the easier parents get to sleep as well.

But I feel like this, kind of, leads us into the idea of supplemental melatonin, which I know you have done a tremendous amount of research on and also have products related to. And I think this is an important area to touch on as well. Because like I said in the beginning, it's considered semi-controversial. There are certainly a wide variety of viewpoints. And I think that there are really helpful ways that you can use melatonin. But you have to understand. And you already mentioned a little bit about the dose. I think maybe one thing to touch on is that a lot of people tend to massively overdose melatonin when using it supplementally. And that can lead to some unwanted side effects the next day or long-term things that may not be as desirable. But to me, I think of it, kind of, in different categories. Like, I'm gonna use melatonin differently if I am flying internationally and have jetlag or have had to be up all night for whatever reason. Something that has disrupted my sleep schedule artificially, I'm gonna use melatonin differently than if I was just gonna use it for sleep in general, in a normal sleep situation. And then beyond that, there seemed to be an emerging number of ways to use melatonin outside of just for sleep. So, let's go deep on the idea of supplemental melatonin and how we can best use it to our advantage.

Lisa: That is a really important question. And yes, there is a lot of emerging evidence that melatonin can be applied broadly to a number of conditions. But when you're thinking about let's take the question of dosing children with melatonin as an example. We get asked that a lot as a company. As a company that produces melatonin, we don't recommend dosing children with melatonin. We don't think you should give it to them in that there's no research using melatonin for kids, generally speaking. As I mentioned, kids are producing three times the level of adults. And as long as we're looking at sleep hygiene that we've already covered and, you know, you don't have practices that are impacting that negatively, the vast majority of kids should be fine in the melatonin that they're producing naturally.

Having said that, and I'm sure that many of your listeners are aware, there is some research around children with ADHD, autism, and other childhood conditions where sleep is a major issue. And understandably, some of those circumstances, families can get really desperate for any sort of solution to get some relief in that context. And we know that some of those conditions cause the body's own production of melatonin to be less

than optimal. So, all I can really say about that is to remember that less is more if you're talking about dosing it for children. And again, we don't advocate for that. As a grandmother and a mother, I would far much prefer to have a plant-based bio-identical form of melatonin than a synthesized version, which is what most melatonin on the market is and also, paying attention again to that quantity of melatonin that you're giving. There's a lot of self-prescribing going on. You know, we hear a lot about that. And we really advocate for having good guidance from practitioners who are really well-versed on this topic. So that would be my first and foremost thought, particularly around children.

We also know that melatonin is not always the issue that is causing a sleep disturbance. I mean, there's all kinds of reasons why people don't sleep. They can be tired during the day and they can't fall asleep at night, and that can be related to cortisol. And if you're producing too much of that at night, you know, and not enough in the morning, it's having an effect on that circadian rhythm that we touched on earlier. And there's very definitely a correlate between cortisol and melatonin. If you wake up in the middle of the night and can't go back to sleep, that can be related to stress or blood sugar that we, kind of, touched on also, and even detoxification. That's an important element. And it's important when thinking about melatonin for sleep that you'd be sure that the problem is related to circadian rhythm or your sleep-wake cycle. That's why it's good for jetlag. It's great for shiftwork, people who need to readjust their sleep, you know, pattern for various reasons. And there's great evidence that people over 55 years of age with their melatonin production coming down, it's a good time to think about it as a supplement.

But that's, again, why we only recommend a 0.3 dose of melatonin. And I take it daily myself for the antioxidant benefits. Melatonin is one of the very few antioxidants that breaks the blood-brain barrier. And there's this really amazing intelligence that the body has in producing this blood-brain barrier so that, you know, pathogens and toxins of various kinds don't get into the brain. And as I said, very few things break that. And melatonin is an antioxidant that does do that. And so, regular use of that, especially as you get older, is worth considering. But it doesn't...You know, a lot of people think that that's not very much because they're used to seeing on...you know, they go to the store, and they see 3 milligrams on the shelf. And we just have to help them understand that more is not always better.

And it's interesting to note, sort of, the reasons why we have those higher doses. And there is a lot of clinical research on melatonin that started at higher doses to see if it would work. And then gradually through research, we found that lower and lower doses were just as effective but there's a time lag with research, right, and common knowledge. So that's one thing. And it's also interesting, just as a side point that there was a patent in the U.S. for doses that were 1 milligram or lower. So that prohibited the sales of lower melatonin dosing unless that company were to pay for the privilege. So, that would have made it too expensive and no company was really willing to do that. So instead, they produce higher levels of melatonin to get around the patent restriction. And I think that, kind of, set a pattern and set our expectations for what we thought we needed when in reality we need less.

Katie: I was just gonna highlight that, that I think a lot of people don't understand the antioxidant role, and especially that it can cross the blood-brain barrier. So I'm so glad that you brought that up. And also the dosing amount because that seems to be where the controversy centers is the negative effects seem to come from

taking much more than is needed. And I love that you guys educate about that proper dose and it being such, like, literally a tenth of what a lot of people often take. Is regular use an issue, like can people become dependent on melatonin? Like, I'm a big fan personally of, I rotate everything. So I don't take any supplements every single day, even normal ones that I would take. But is that an issue or concern with melatonin at all?

Lisa: That's a great question too. So there's a couple of things. One is a lot of it is about that too high a dose, right? So, there's a couple of things to note before I, kind of, address your question. One is if you take too high a dose, it can actually interfere with your sleep. You might find it harder to fall asleep and to stay asleep if you're taking too high a dose. There's also some evidence, going to your question, that you can interfere with the melatonin receptor site potentially by taking too much melatonin. And over the years, I've heard people say, "Oh, I can't take melatonin. I feel hungover from it or I can't take melatonin. It makes me feel too groggy during the day", that sort of thing, or "I have vivid dreams and nightmares." So, again, we think that is probably a high dose problem, you know, a result of taking too high a dose. But in some cases, there does seem to be some evidence that it can potentially adverse the melatonin receptor site.

So, that's why what I said earlier about working with your doctor because there are some applications where taking a higher dose is warranted. So, for instance, there's a lot of research showing up around melatonin and the gut as I mentioned before. It's being used in a number of conditions like IBS, for instance. But what's interesting there is that IBS C, which is for a person who experienced IBS with more of a constipation, kind of, component, does better with less melatonin, whereas someone with IBS D does better with a greater dosing of melatonin. So, that dose-dependency really needs to be guided by a practitioner who understands the research and knows what they're doing, rather than someone dosing themselves or, you know, prescribing for themselves. I think it's important to have that support and understanding.

Katie: Got it. Okay. Yeah, that is really important.

This podcast is sponsored by Flying Embers, a better-for-you alcohol brand that brews Hard Kombucha with probiotic-powered Hard Seltzer. All of their products are zero sugar, zero carbs, USDA certified organic, and brewed with live probiotics and adaptogens. They're also all keto, gluten-free, vegan, and low in calories, so they're a great option for a functional low-calorie drink that is delicious. I love their flavors. They have some really unique ones, like Grapefruit Thyme and Guava Jalapeno, and I'm a big fan of their Clementine Hibiscus. All of their products are artfully crafted with a dry fermentation process, which gives the Hard Kombucha a perfectly balanced natural sweetness that tastes amazing despite having zero sugar and carbs. We've worked out an exclusive deal just for you. Receive 15% off your whole order. To claim this deal, go to flyingembers.com/wellnessmama and use code WELLNESSMAMA at checkout and the discount is only available on their website. And they're also available nationwide at grocery stores, anywhere you find beer and hard seltzers, but check out where to find them and get the discount, flyingembers.com/wellnessmama.

This episode is sponsored by Paleo Valley, my go to source for grass fed probiotic rich beef sticks and now some of my favorite supplements as well. They have a vitamin C complex made with three of the most concentrated natural sources of vitamin C: amla berry, camu camu berry, and unripe acerola cherry. Each nutrient-packed

serving delivers 750% of your daily recommended intake of vitamin C – an amount meant to help you thrive, not just survive. Most other vitamin C supplements are derived from GMO corn and only contain one fraction of the vitamin – ascorbic acid. Their Essential C Complex contains the entire spectrum with absolutely no synthetic vitamin C at all... just organic superfoods! Check this and all of their products out and save 15% at paleovalley.com/mama for 15% off.

And I know you guys have specific products geared toward those particular doses. Can you talk a little bit about those specifically and, like, what kind of use cases people typically have for each one?

Lisa: Yeah, we have two doses. One is a 0.3, as I mentioned, which is within a physiological dose or range that your body makes, and a 3 milligram which, as you mentioned, is 10 times a physiological dose, but can be utilized for conditions that, like what I mentioned and more, we don't like to recommend anyone take more than a 0.3 for longer than a week at a time. If you want to change your circadian rhythm and you decide to take a 3 milligram, we recommend that you do that for no longer than a week and then you would take a break because we don't wanna have a potential effect on the melatonin receptor site or cause any kind of dependence as I mentioned earlier. So, we all over here prefer the 0.3 to the 3 milligram unless in the applications that I've mentioned.

The thing about our melatonin that I think is really interesting is that it is plant-based melatonin. That's another thing that most people don't realize is that most melatonin on the market is from a synthesized version of melatonin. So it originally started out that they were producing melatonin from the pineal gland of, like, a cow, sheep, or pig toward the end of their lives. And then we, kind of, moved away from that. There are still some of those available, but by and large, they are a synthesized version, which is coming out of a lab. And it can still be labeled as natural because its original source might have natural.

But ours is the first plant-based melatonin in the market, and in a 0.3 and a 3 milligram as I mentioned earlier. But what's also interesting about it is it comes from rice, chlorella, and alfalfa, and that it is within the cell-matrix of the plant, we're not extracting it. So, it has a bio-identical, you know, time-released, naturally occurring melatonin within those plants. So, it's very unusual and quite a technological feat, actually, that we're able to produce it, and at a 3 milligram particularly. It's very hard to extract enough melatonin from a food source. You need something like, I forget what it is, like 1,500 pistachios, as I understand it. You know, pistachios being one of the higher sources of melatonin from food, so you'd see that it would be prohibitive to produce it from that source. So, this is quite interesting.

Katie: Gotcha. Okay. I've been taking notes over here, and will make sure I link to those as well. Like I said, you guys are pretty much the only melatonin I've used in recent years at all. And I keep both on hand but the higher dose more for, like, acute things. Times when I, for instance, have been a doula and was up all night or, like, jetlag, things that artificially disrupted my sleep, I would use it for that. But I'll link to both in the show notes. And I know you guys have some educational resources about them as well. So I'll make sure those get linked as well. And I know there's so many more topics within this and a lot of different directions we could go but I think we should just probably also have a round two one day to be able to really touch on other aspects

of the hormone side. And I know you guys have products for other hormone-related specifics as well. So, I don't wanna get into a topic and then not really be able to delve into it. But you briefly touched on this. But before we wrap up, can you mention, kind of, the implication here with the HPA axis for anyone who's not familiar with that process and melatonin?

Lisa: Sure. So, if people don't know what the HPA axis is, it refers to the hypothalamus-pituitary and adrenal axis, which is the fundamental or foundational piece of your endocrine system. So, with regard to hormones, kind of broadly speaking, if that system is not functioning optimally, you can experience a lot of hormone imbalances, everything from, you know, PMS and infertility to dysregulation of cortisol to, you know, PCOS, and other conditions that are associated with hormone imbalance. So it can be very, very broad, and we have a lot of materials. You know, often people are manipulating hormones with things like the birth control pill, as an example, because they have symptoms...they're not taking a pill because of birth control, they're taking them to manage symptoms that we can improve by improving the communication between the hypothalamus, pituitary, and adrenal, for example.

So, it's our position as a company that we would like to go to the root cause rather than trying to manipulate hormones. So when you consider that many women, I think it's 25% of women in the United States use the birth control pill for addressing conditions other than using it as birth control. And then you consider that many women go on the pill as early as age 14 years, and they may stay on the pill all the way to perimenopause. So, they're manipulating hormones for literally decades. So, we believe that going to the root cause of what causes those conditions that a person is trying to address is a much more effective and sustainable way of supporting a woman's health or a man's health for that matter. And our products are really designed to support that. So, it's supporting the body's innate wisdom in regulating its own hormone balance, rather than introducing hormones into the body.

Katie: You're good. Yeah, that's such an important distinction. And I'm so glad that you touched on that. I have a feeling there will be follow-up questions related to this episode. So like I said, we'll just have to lock in a round two if you're willing. And a somewhat unrelated question I'd like to ask toward the end of interviews is if there's a book or number of books that have had a profound impact on your life, and if so what they are and why.

Lisa: Oh, boy, books. It's funny that you asked me that question, actually. I was just speaking to my daughter about this. And since so many of your listeners are mothers, I will say that one book that had a really profound effect on me actually was "The Bluest Eye" by Toni Morrison because it really hit me hard about what we think of ourselves is adopted by our children to a very large degree. And that novel really, sort of, drove that home for me. I think sometimes, as parents, we give too little thought to how we subliminally model to our children all of the time, whether we mean to or not. And so that book really had a profound effect on me in that regard.

Katie: I love that. That's a new recommendation. I'll make sure that in the show notes.

Lisa: It's a tough book, but it makes it a really important point. Yeah.

Katie: Awesome. Well, that will be in the show notes for any of you guys listening. And like I said, I will link you guys to your site and the educational side and also to the specific products that we mentioned. But I think this has been really enlightening and helping, kind of, shed some light on the various uses of melatonin specifically and how to use it, like you said, in line with the body versus just manipulating hormones artificially. And I look forward to chatting with you again pretty soon, but thank you for your time and thank you for being here today.

Lisa: Thank you, Katie. I really appreciate your time and it's great to hear your voice.

Katie: Oh, likewise. And thanks as always to all of you for listening, for sharing your valuable assets, your time and your energy, with us today. We're so grateful that you did, and I hope that you will join me again on the next episode of the "Wellness Mama Podcast".

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.