



Episode 551: Mollie McGlocklin on Sleep Is a Skill +  
Chronobiology and Circadian Rhythm

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Katie: Hello, and welcome to the "Wellness Mama" podcast. I'm Katie from [wellnessmama.com](https://wellnessmama.com) and [wellnesse.com](https://wellnesse.com). That's Wellnesse with an E on the end. And this episode is all about sleep. I'm here with my good friend, Mollie McGlocklin, who is the creator of Sleep is a Skill and the host of the "Sleep is a Skill" podcast. Her company is one that helps people optimize sleep through a unique blend of technology, accountability, and behavioral change and this started for her after navigating really intense insomnia while traveling. And so she created what she couldn't find, which is a place to learn the skill set of sleep and to have lifelong better sleep and we get into that today. We talk about chronobiology, circadian rhythm, practical strategies. She talks about levers you can pull with light, temperature, food, etc., to improve your sleep, what infradian rhythm is, and how this applies to women especially, the most important things you can do during the day to improve your sleep and much, much more. Mollie is a wealth of knowledge and I cannot wait to share her with you. So let's jump in. Mollie, welcome to the podcast. Thanks so much for being here.

Mollie: Oh, Katie, thank you so much for having me. I cannot tell you how excited I am to have this conversation and just grateful over the course of the last few months, to get to know you more and I just so admire what you've created and built. And so I'm just grateful to be able to share more about sleep today.

Katie: I am glad to have you here because that is such an important topic. And we got to be roommates at a conference recently, and I got to know you even better and was so happy to get to share you with the audience today. And I know that your story, like many of us who get into part of the health world, there's often a personal reason why, and you had a very personal reason why sleep became your passion and you now help thousands of people with their sleep. So, if you don't mind, let's start there and tell us how sleep became such a focus for you.

Mollie: Absolutely. Yeah. And I do think this provides some context for anyone listening because how I got into this was really to solve my own problem. And as you so eloquently pointed out, many of us experience that when we get so immersed in a topic because we want to create the solution for ourselves. So what mine looked like was really a kind of three-part series where for much of my life, I had a lot of labels in the realm of my sleep. I'm a short sleeper, I'm a night owl. It's in my genes. I'm a bad sleeper, just how it is. A lot of these fixed ways of being and thinking that then I need to just survive this. This is how it is, you know, maybe pull yourself up at your bootstraps, get through it you'll sleep when you're dead, all of those kinds of isms and ways of approaching, but really from a place that there's nothing that I can necessarily do to make a real lasting difference in this area, so why bother?

So that was how it was for me for many years, even when I was younger. And then as the years went on as a serial entrepreneur in Manhattan burning the candle at both ends, I started getting more exaggerated with my habits, and what that ended up looking like was starting to go to bed later and later, waking up later and later, being justified and righteous about it, where I say, "Oh, well, who cares? I make my own hours, not a big deal. I'm more creative at night. Like, you know, I'm just gonna foster this, lead into that, all of that."

I did not start to notice some of these through lines that in, you know, hindsight certainly played a role in what was happening with my sleep. And some of those looked like getting the beginnings of an ulcer, getting shingles in my 20s, you know, getting more and more anxious as time went on. And with that really missing some of these cues that something wasn't working in the way I was managing my life. So it was not until I went through my own period of insomnia while traveling internationally that everything changed. And what that really looked like was my fiancée and I were wanting to do kind of this Tim Ferriss, digital nomad thing, take a one-way ticket, bring our businesses on the road before they're ready, massive stress. And really the way that all kind of coalesced was just I could not sleep.

And it was days and days and days, and I'm able to, you know, be laughing and carefree about it now, but at the time it was so scary. It was such a rock bottom moment. And I come from a family with a background with a lot of mental health issues. And so for me, it really felt like, "Oh, okay, here we go. This is it. I'm going down a quest. I'm losing my mind and I'm gonna have to be on, you know, sleeping pills and a cocktail of things in order to just really bring back even just generalized homeostasis." It's never gonna be the same. That was the internal dialogue. And so, at one of my lowest moments, I went to the doctors in Croatia and left with their version of Ambien and realized, okay, if I'm gonna really make a difference with this, I have to take, you know, take this on in a really serious way, and really went down the rabbit hole.

What I discovered completely changed my life in understanding this realm of chronobiology really the science of time and how the time and the constructs in our environment and in our behaviors affect our biology. So that really turned my life upside down and has continued to turn that upside down in a really positive way. So

on the other side of that, now what life looks like is knowing myself as someone that has a set of tools to get consistently great sleep night after night. And what ended up happening once that occurred, when I really was able to restore that, then I just could not stop talking about it. And from that place, just sort of organically started working with people that were also struggling, and then it started building.

And so now we have 100 and almost 90 weekly sleep newsletter editions. We have a weekly podcast with sleep experts. We have online courses, one-on-one, and small group. We are now in hotels, Casa Cipriani in Manhattan, I work with USC fighters, poker players, high-performance individuals. And so I share all that because that was something that just did not seem possible at that lowest point when it really felt like this is how it's gonna be forever. So, my real mission in life is to really share just how transformative I truly believe this area of life can be, not just for this isolated area of sleep, but by virtue of focusing on this and having the circadian centric lens, then that is where we can start to really make a lasting difference with our health and our wellbeing.

Katie: Absolutely. I've said on here that in the 500-plus people that I've had on this podcast, the one thing that universally everyone seems to agree on is that sleep is important. I'm yet to have an expert come on and say, "You know what? Sleep really doesn't matter. You can just out supplement it. You can just out whatever." And I often recommend one of my favorite tips as soon as possible in the morning, get outside and get natural light as soon as possible after the sun rises. And that's a free thing that anyone can do. And it seems very simple and it often has a very profound impact, which leads me into let's talk about the topic of chronobiology because I would guess a lot of listeners have maybe at least heard that word or understand light is an important part of this. But there's a lot of other things that go into it as well and how like our sleep hormones and cortisol patterns affect every other hormone. So we're talking about sleep as if it's an isolated thing, but often it really impacts as you have found personally, every single area of your life.

Mollie: Absolutely. Well, one, I acknowledge you for one, noticing that through-line with all of these amazing people that you've set up a forum to have these conversations with and yes, yes, yes, so important. And then also the getting outside and making that distinction of just how important that is. I think that can be something that people might hear and say, "Yeah, that's a nice idea. I kind of get that." But to really practice that and feel the difference like it sounds like you certainly have and continue to do. And when we were roommates, I know we were talking about the importance of these things that will get into today. So really, really good points on that 100%.

So having said that, as far as chronobiology, okay. So I mentioned briefly that chronobiology is really the science of time and how time affects our biology and our health. So, breaking that down further, a couple of things that, or one key framework that we work with within sleep as a skill is understanding that there are three key rhythms. So underneath this overarching area of chronobiology and it's relatively a newer science that in the scheme of things as compared to other sciences to be beginning to start to make its way into the mainstream. And so some of the things that people might have heard is this first rhythm that is a bit more common, which is in the understanding, which is our circadian rhythm. So our circadian rhythm, it's this rhythm that's happening on a 24-hour rhythm, and as diurnal creatures were meant to be active during the day and at rest at night. So, from that place that is where we can really look to optimize and strengthen this rhythm, but it is important to note too.

And so we'll do a lot of talking about that or can do lean into that a bit more. There are two other rhythms that are important to know about too. Our ultradian rhythms. So these are rhythms that happen less than a 24-hour rhythm or timeline. And so that can look like your heart rate, that can like your breathing, certain other patterns that we can establish that are happening rhythmically and shift throughout the course of the

day. And then there's also our infradian rhythm. And so our infradian rhythm being what's governed by for women and happening on a round of 28-day schedule about a month or so. And so those are for women of menstruating age that is something for us to be really mindful for because that can really affect our hormones at around four different times of the month.

I'm sure you've done lots of diving in on this topic. But it's interesting to have this under this umbrella of chronobiology because it gives us a place and an area of study to really dive into more if people are hearing this newly or if they've loosely heard about it and how that can play a role in our sleep. So back to the one that a lot of people have heard of is the circadian rhythm. So what we do a lot of work with here is entrainment, how to entrain our surroundings and our behaviors to have a result on these rhythms in our biology so that they're happening continuously and count honorably so that we don't have to think of about it. So an example of that with the circadian rhythm is like the friend that you go out and everyone's out later, it's a wedding or whatever happens. And then the next morning they're the ones that still get up at around the same time, the very next morning, despite what happened the night before, we're looking to become that friend essentially.

Now what I can say about entrainment is that you can entrain in ways that are off-kilter and many of us are actually actively doing that in our modern society right now. So what that can look like is entraining by having light at the wrong times, say, watching Netflix late, or the temperature in your environment is high at the wrong times. Some of the foods that you might be eating and, you know, so we'll get into all of these different things, but so you might be entraining yourself to be on the weak side of the spectrum of the strength, the robustness of your circadian rhythm or the strong side.

So, we want to move everything over to that strong side. And that does technically include those other rhythms that we spoke to too. So, from that place, what I want to definitely begin to underscore is that there are a couple that are most important. And so the first one you touched on so beautifully, which is light timing. So light timing is gonna be your biggest zeitgeber, which is known as your time giver for the entrainment of all of these rhythms. So, if you get nothing else out of what I'm saying please let it be this, that light is the most crucial thing that you can learn to lean into. We call this company "Sleep is a Skill" for a reason because it does actually behoove us to learn more about some of these things that so massively impact our biology. And for so long, these were automatically happening. And these were automatically happening because of our ways of setting up our life.

So what I mean by that is that my often reference is a study that came out of the EPA in 2001, where it showed that the average American was spending about 93% of their time inside. That was both indoors and in an automobile. And the reason I mentioned that in reference to all of this is that the average person, this is back in 2001, by the way, before a pandemic, before, you know, smartphones, before, you know, Netflix and all the things. So, with that, only 7% of their entire life on average was spent outdoors. The reason that that is so important to this conversation is that this is part of what's become broken with this entrainment process. Because previous to that, we would've been outside in this realm of nature. We would've had all these cues that we'll speak to that would automatically be happening so we wouldn't have to think of it because we've now gone inward, gone inside, become this indoor kind of zoo animals, then we are divorced from some of these rhythms and cues. So now we have to artificially create those. And so we can talk about what that would look like.

Katie: Yeah. That study. I remember you talking about that at the event we were at and it makes sense based on how much we're all inside, but it still shocked me that it's 93% of our time and probably higher now. And like in contrast to that, I don't remember the year of it, but there was a camping study that was like people

being in nature for a very short amount of time and how quickly light was able to undo these problems too when we actually retrained to nature.

Mollie: Yes. Oh, I'm so glad you mentioned that, see, this is your kindred spirits because that study I really, really think is so important outside our University of Colorado. And what happened with that study was taking individuals that had kind of self-identified as being night owls or going to bed skewing later of their time of sleep onset. And then within a relatively short period of time, they take them out camping and they start adjusting to these rhythms that are governed in their environment. And so by being divorced from some of those electronics and the full light and the full temperature controls that we have and all these kind of regulations that we have going on the background, which many of us don't necessarily think of. And by the way, when I was going through what I was going through with my sleep, I couldn't tell you when the sun would rise or set. I couldn't tell you, you know, what temperature I'm usually setting the environment into or why that matters. All of those things really do massively matter. And we see some of those results in studies like that, wherein a relatively short period of time, we can entrain and have a whole different type of lifestyle. And that includes our sleep-wake cycle.

Now, a quick example of that that people might have experience is with jet lag and particularly the type of jet lag where you're traveling internationally and really upside down in your schedule. And with that, while it can feel very weird and off for the first few days, and as things keep going, you're often surprised at how many things can just feel very confusing. And then over time, within a relatively short period of time, you start to entrain to whatever the Hong Kong Time Zone and you had been in New York. And that's a really magical thing that we're able to be dynamic creatures and adjust to those environments, but the same way we're able to do that, we have to also get responsible and get aware of how often we're doing some version of that. So one kind of term is known as social jet lag. So you don't get on a plane, you don't go anywhere, but you're experiencing the effects of jet lag while you're just staying at home because by virtue of having these confusing cues that we can get into.

Katie: Yeah, let's talk about maybe some of those like most effective levers that we can pull for sleep. So obviously light being a big one, but if we were gonna 80-20 it, like what would be the big ones and then beyond there, what are other things we can do?

Mollie: Great. Okay. So, a couple of things. So this can go under the umbrella of almost rewilding of how to have it all, how to, you know, have the fact that I'm grateful for the fact that we're having this conversation on Zoom, you know, with the magic of technology. And so we wanna still be able to utilize technology, but how to mimic this blueprint of sort of our ancestral wisdom that's still biologically hardwired that we can't just divorce ourselves from. So, what does this look like? So the top most important I mentioned was light. So you're gonna wanna really become a connoisseur of light and have your very first activity be exactly what Katie called out which is to get yourself outside and not from just behind a window. There were studies where it takes anywhere from 50 to 100 times longer to reset your master clock which is your suprachiasmatic nucleus in your brain.

It takes that much longer in certain studies for behind a window that's still valuable where windows and light source are still certainly valuable there is also study showing in hospitals where people are able to be released faster by virtue of just having access to a window. But it's still not gonna make the major difference, particularly, if you are really struggling with your sleep. So getting yourself outside physically, get yourself connected to where you are on the globe. There's apps like D Minder or different ones that will geotag you where you are and give you some insights onto the strength of the sun in relative to you and what time of the year that you are doing this.

So, get yourself educated on this topic and ensure that if you're curious about what time you're getting this light, you're always aiming to anchor it. So it's called sunlight anchoring on the first half of the day. And then the next most important one is actually around sunset. And that's gonna have that presence of infrared light in both of those time spectrums. But so you're getting those and you're timing that.

The second one is darkness timing. So on the flip side of light, of course, there's darkness and many of us might actually not be aware of just how little true darkness we're actually getting and how much those hours before bed really matter. So you wanna do as much as possible to set your environment up. And we advocate it looking a little weird. So have red lights, have Himalayan salt lamps, have, you know, Amber lamps, ideally, candles there's studies at NASA that are fascinating worth using candlelight. Because that's really important to them is how to keep their astronauts on time when shuttling through space and your sun is rising and setting every 90 minutes on average.

So, this becomes a really important topic for them and just literally candlelight or a low Luxe output that has a warm kind of hue to it. That's gonna be really important in the evening. So dim, super dim in the evenings, and go to total darkness at night, which you've probably heard of while you're sleeping. Now, aside from the light and dark, the next one is temperature.

So temperature is one that one, you can look to the ambient temperature that you have in your space. And you can use this as another cue for yourself where you're getting yourself at a warmer temperature throughout the course of the day because it's not static, it's dynamic. And you want it to be rising throughout the course of the day by virtue of the things that you're doing. You have a lot of say over all of these things.

So, getting yourself outside, getting yourself moving, even taking on cognitively demanding tasks can heat up certain brain matter. There's things around, certainly, the meal timing that you're gonna have is gonna heat your body temperature up. So, but certainly just even looking at the ambient temperature have it warmer when you wake up and then when you're going to bed when you're beginning to have that wind-down process in the evening you're turning down the ambient temperature, ideally if you have that type of control. And then there are also products on the market too to help with the ambient cooling temperature and even in your bed. So ensure you have a bed that's gonna not then trap that heat inside there and then different cooling mattress products and that sort of thing. And then nestled underneath temperature are some of those things that I mentioned, so meal timing is a huge one. I see this a lot. Every client we're working with is wearing different sleep trackers.

And so we'll see so often that late-night eating and that doesn't just mean like right before bed, you're eating we're talking even two hours, sometimes three hours depending on the sensitivity of the person and what their schedules are around meal timing. We have seen really fascinating changes when people even experiment and of course is bio-individual, you know, consult whoever you need to consult on this topic. But we've seen really incredible things where people even test with four to five hours before bed that that's when stopping their last bite. And if people would learn more about this "Circadian Code" is a great book where you can delve into this topic more and just how much of a huge difference this makes. But from a common-sense perspective that you can imagine that if you are eating and the assumption is that you're getting energy from this food, there makes sense that the body would imagine that we're still needing to do things if we are eating the bulk of our calories.

And many of us are actually backloading our calories into the later on into the day. If you're someone that intermittent fast, I've seen a lot of that too. People are skipping breakfast, skipping, you know, pushing their meals much, much later. So, and that's not to take away from intermittent fasting is fantastic. And how can we

play with the rhythm? So, there's something called circadian rhythm intermittent fasting, and that is one where you're aiming to eat within sunrise and sunset. And that can be a more gentle fast to begin with. Someone's, you know, fasting curious. And then a more extreme side of that would be early time-restricted feeding. And that is basically the inverse of what a lot of people are doing with skipping breakfast, where instead you're actually more of skipping your dinner in a lot of ways or moving that into the early afternoon. So, those things can all affect that temperature element of things. So when you shift over to fasting in the evening, that allows the body to really down-regulate the body temperature and move into that night mode that we're looking to facilitate. And then we can get into some of the other ones, which more involve movement timing, thought timing, drug timing, and so on.

Katie: Yeah. I love that you brought up the food one because I think intermittent fasting has gotten so popular and there's really cool data on time-restricted feeding. And I recently had Satchin Panda on here and he talked about this as well. And he said, actually, it's not popular because it's not socially fun to do. But the optimal thing to do would be to wake up and don't eat for maybe like the first, just 60 minutes to let your cortisol patterns don't have coffee during that time. That's when you get sunlight, hydrate, then do like coffee and breakfast and consume protein, consume a lot of micronutrients at breakfast and lunch being your biggest meals. And then he said, ideally, you would have your last meal, like 3:00 or 4:00 in the afternoon because he's like, we think we start fasting we stop eating, but really we don't. Our body is not fasting for at least four or five hours after that.

And so, if you're not in that fasting state when you go to sleep, your body's still allocating resources to digestion that could be used for repair, for flushing the amyloid plaques in the brain. Again, that's not super fun, because family dinner is a very valid thing and it's awesome. But I've been experimenting with that recently and it is interesting also how, like it seems like digestion improves pretty rapidly when you stop eating before bed people find they get leaner more easily, like, your body can release body fat more easily when your liver's getting a break before sleep time. So, it's not an easy one with the way our society is set up, but it seems like it's worth at least trying, especially if you're experiencing any of these issues. Like when you work with clients, do they see a pretty big difference when they can shift their food and their light to these patterns, like, pretty quickly?

Mollie: Yes. Okay. So one, you just did such a good synopsis of Dr. Satchin Panda's work at Salk Institute. Fascinating, fascinating, I highly recommend people look into this because I think this is a very underestimated piece because what we see is when people do explore this and again, you know, do what works for you and you don't wanna just jump into these things, does take your body kind of a metabolic shift to start moving things a bit earlier. But from that place, if you start to do this, some of the things that I'll see we tend to see a lowering of heart rate in the evening. So this is out of nocturnal sleep data. So what we're seeing out of that data is a tendency to lower their heart rate, lowering of respiratory rate, often lowering our body temperature, and we'll often see improvements in heart rate variability or HRV.

So, those are some of the measurable ones. And then for people that are looking at the sleep staging on their wearables, now I do always make the callout that of all the information on these wearables, the sleep stage classifications are the best. So, hopefully, you know, don't lose your mind on those breakdowns and especially don't cross compare because they're gonna be so different from Whoop, to Oura to Biostrap, to all the things. But we do tend to see improvements in deep sleep, which I know many people are often looking to improve upon. Now, I won't say that this is across the board by any means, but there are often has been a surprising number of people that have seen that shift. And that certainly when you layer in all of these other changes temperature being a big one for that kind of deep sleep indicator piece.

But then putting all of these together as a lifestyle. So it's not gonna just work to move your meal a little bit earlier, like, you know, one night and then maybe play with the temperature and the light and what have you. This is really committing to, how can we start to make this more of a consistent thing? Of course, you're gonna have spontaneity, and change, and what have you, but if we can start to bring this in where possible and you made this such a great point because a lot of this has to do with social constructs. Dr. Peter Attia, I loved...Had a great quote where he said something to the effect of, "If I was the czar of everything and I could just, you know, wave my wand and do whatever I want." His callout was that I would shift social constructs to be infinitely earlier so that we're kind of putting things upside down. So instead of meeting at night, we're meeting in the mornings, in the afternoons, and what have you. Our meal timing is like that. But also our exercising, our thought timing, which we can also get into, which is kind of fascinating too, of just how much upside down and delayed kind of architecture we've created in what's happening for us throughout the course of the day and how much this really dramatically skews these rhythms that are so sensitive.

Katie: Absolutely. Yeah. I think these shifts alone and I could think of far worse people to be a czar of everything than...

Mollie: Yes, same. I'm into that one.

Katie: Let's talk a little bit more about infradian rhythm because you hinted at that women especially can use this to our advantage and at least be aware of it to improve our sleep. So, give us a little more detail on what does that look like at the different points in our cycle?

Mollie: Okay, great. Yes. Good question. So, a couple of things. So, as a reminder, infradian rhythm is this rhythm that's happening contrary to circadian rhythm. So, for women, we have more rhythms to be aware of than the average man. So, while they're concerned about, for men concerned about circadian rhythms and ultradian rhythms, for us, it is those and it is our infradian rhythm. So, this is all during the time when you're of menstruating age. And so with that, here's what it breaks down to is then if you have this rhythm that's happening about a month, every month during this period of your life, what gets broken down are these different periods of hormonal shifts. And we've had different people, you know, and I'm sure you've really delved into this topic quite a bit. Some people call it different things, cycle sinking, biorhythms, different ways of sort of mentally constructing this.

But a couple of ways to just make it really basic is that there's, you can even think of it as two parts of your month where the first half that's about your first two parts of your cycle. So that looks like your menstruation and your follicular that you're tending to have more of a period of in measurable terms, higher HRV is one thing that we tend to see during this period. So heart rate variability, which tends to reflect how recovered you are moment, to moment, to moment. And so from that place, that can be a time when you might wanna front load more of the things that might be stressors to your body because you seem from what we've been able to discover seem to be more resilient during that period based on a whole slew of hormones in a much longer conversation. But on that first half that's where you might be able to experiment with more of those extended fast or intermittent fasting, depending on what works for you or maybe lower carb or what have you. That could be a time to explore that.

That could also be a time to have movement or the type of movement that might be more of a stressor. So high intensity, you might do some whatever CrossFit or whatever it is that might work for you. Putting that into that front half. Now the second half, so that's shifting from ovulation to luteal that's where we tend to see lower HRV readouts, higher heart rate, and then certainly body temperature tends to go up during this period during luteal. And so from that place, that's where we wanna prioritize more of the self-care because from the

sleep perspective, that's where we tend to see people having more difficulty, either falling asleep or staying asleep. This is so, so huge for us to be taught, and to learn, and to explore it ourselves because when we have this construct to be aware of, we're no longer sort of mystified at this consistent period, "Oh, why am I not sleeping? Why is this happening?" And what we can do about it.

So, from that place, this is actually there's an interesting conversation, different studies coming out around breathwork during that time being even more important to lean into because we seem to change the breathing style during that period of the second half of our cycle. So that can be a period where you might wanna prioritize more of that. You might wanna have lighter, you know, yoga kind of a light sort of style to how you're taking on this movement or other stressors. This wouldn't necessarily be maybe the best time to do, you know, kind of intense sauna or intense...If we're getting into kind of the biohacking space, you know, cold plunge and all of those sort of things, we might wanna regulate those into that front half. Now, if you really wanna go in deeper to this, of course, Katie's gonna have tons of amazing resources and really go more nuanced on the different types of hormones that are at play for this and then what can happen when these get thrown off and then how to restore that.

But part of the virtue of this is even from that place, if you have that overarching framework, you can begin to, instead of making yourself wrong, I used to do myself and have a bit more of that kind of circadian centric thinking that that was from a male perspective, they work beautifully to have a daily consistent schedule that stays the same every single day. And I would make myself wrong if I deviated from that. But it actually is a way for us to kind of biohack our biology, to live in alignment with these things be informed by these, not be surprised. And then there might be different supplements you lean into at different parts of those cycles and different behaviors and activities, but those are gonna drastically impact your sleep results.

Katie: Yeah. I've learned this the hard way myself as well, especially with really heavy lifting, I've been enjoying getting a lot stronger and doing heavy lifts and I've learned to try my max lifts when I'm going to increase weight during the first half of my cycle because right before my period is not the time that my body wants to do that. And I get a lot farther when I'm working with it.

There's also been, I know you and I have talked about this, a lot of recent information about neurodegenerative disease and sleep and it makes sense, of course, that there would be a connection here. I know I've read about how the body flushes that cerebral spinal fluid and can help break down the amyloid plaques in the brain during deep sleep, which you've talked about how important deep sleep is. But what is the data saying right now about like the link between sleep quality and some of these neurodegenerative problems we're seeing arise?

Mollie: Yes. Okay. So such good points. And I also appreciate you sharing about your own kind of hormonal journey and awareness because this is something that I hope on this conversation sparks more interest or if you've already been exploring that to really dive deeper on that topic. And, as far as this from a long-term perspective and even there's short-term ramifications of the cognitive functions when sleep is impaired. And so what that's looking like on the positive side of things is that one of the big reasons that sleep has gotten out more in the mainstream and you're seeing an uptick in more studies, and conversations and more kind of mainstream data is for a few reasons. One, certainly because so many people are just purely struggling and some of them are at all-time highs. Two, wearables and suddenly it's become more gamified.

But three, another big reason is because of some of these really impressive studies where there seems to be more of this correlation between sleep deprivation and consistent chronic sleep deprivation and rates of some of these neurodegenerative diseases Parkinson's Alzheimer's dementia. And so from that place, this is

suddenly giving people an access point that might have, you know, maybe it runs in their family or they've just wanted to be aware of what can they possibly do. This gives us things to do decades in advance. But then even also in the short-term, because there's gonna be short-term effects of even acute periods of sleep deprivation. So what this looks like is the more recent discovery is something known as glymphatic drainage versus lymphatic. So lymphatic with an L, glymphatic with a G.

And so glymphatic is this process of fluid that's really being flushed through the brain each night, particularly during deep sleep. And during that period what's happening is your brain is really shrinking in size. And so that allows for this fluid to flush out all the daily accumulation of kind of toxic waste and, you know, to the body, to the cellular element of things. So this waste product is getting flushed out. So, when we've set ourselves up powerfully and we're doing all the things we've talked about doing, then you're really setting the environment for the body to focus on that really important piece each night on the first half of the night because that's when deep sleep highest ratio tends to happen is the first half. So protecting that first half becomes really important to facilitate ample amounts of glymphatic drainage. When we are not facilitating that consistently, what we seem to have happen is this buildup of that amyloid-beta plaque.

And that if you look at side-by-side of a brain, that's kind of gone under chronic sleep deprivation for extended periods of time and Alzheimer's brain, for example, put them side-by-side, there seems to be a lot of correlations and similarities between that buildup of that plaque. So that's where suddenly people are trying to say, "Okay, this could be an access point for us to be able to have a say of what future we live into." So from that place, what a lot of people are doing unbeknownst, some is just sort of and that's what I was doing for years was say, "Well, what's the difference? Just push out, go to bed a little bit later, I'm in the groove, I'm writing, I'm doing whatever, like who cares? I'll go to bed a little bit later." Now, in the lobbying off of that first half of the night, that's exactly what you're cutting into is more of that deep sleep because a body likes to stay on time.

And the other flip side of that, and it's a whole other conversation is if you're lobbying off the morning, and say you wanna get up early to go work-out or what have you. During that period, that's when we tend to get a higher ratio of REM and I know deep sleep gets a lot of press, but REM is wildly important. I'm very passionate about the mental health side of things. And REM you can almost give it as your built-in internal therapist. And if we're not really carving out enough of that early morning time too, that can bring about more difficulties with emotional regulation, anxiety levels, a number of things, and memory and other things that can really go if we're not facilitating that. But certainly, on the first half of that glymphatic drainage has gotten a lot of press because there's really impressive studies that seem to really paint it in a light where it looks like there's not a lot of question that is something that is at least connected. And we're figuring out how just how much that is connected.

Katie: Yeah. That's a great point. And I know because I follow you on Instagram as well. And you're like my person to beat on deep sleep because yours is so dialed-in and it's...To get between three to four hours of deep sleep at night is impressive, but it requires to your point, like the majority of that seems to happen between 10:00 and 2:00. And when I look at my Oura Ring in the morning, almost all deep sleep happens in that window. And then the REM tends to happen like you said early morning. And so it's like not an either-or you need both of them. But I have found like for deep sleep, for sure, if I can get in bed before 10pm, deep sleep is amazing and HRV is amazing. That's also a harder social thing although it is easier if you stop eating at 3:00 or 4:00 in the afternoon because your body's like, "Okay, done digesting, time for sleep."

Mollie: Yes. And so, one thing that's really cool and I do really advocate that anyone's listening if you have the means to get yourself some sort of sleep tracker and even if you don't or if you're not involved in that doing a

sleep diary or sleep log, when you get these numbers, it becomes so, so helpful for us to continue to gamify. And so one thing I've seen is now I have years and years of data, I can also see like a really cool diary, honestly. Looking at it longitudinally, I know unequivocally certain points I can point to and I know just what was happening based on my sleep results. And one real key difference was when I really started moving that earlier meal timing back now, of course, with what we shared about infradian rhythm being mindful of that, that is something you really wanna be aware that there might be certain periods of your periods so in that second half that maybe you don't wanna push it as quite as much.

And so that might not be a time to do as much of that intermittent fasting phase of things, but I've seen such a difference for myself as far as even the deep sleep numbers. And that was one of the big changes that had been made during that period. And now I've really become addicted to that feeling of being able to wake up the next day with such great sleep. And I know when people, you know, the social construct piece, if you have to go out with someone and they have that later schedule, oh my God, you know, we go to a lot of conferences and what have you and the dinners are always so late. And I really have to adjust with that for a while. It takes a little bit of time because when we think about this Zeitgeber distinction, it's really like, you know, it stands for the takeaway is time giver all of these time givers plays such a dramatic role in our sleep results. And not just about your sleep results for last night, don't just come about from what you did the day before. They're also layered in with days and days before that.

And in alignment with that, it's also really important for us to be aware of. I really want us to shift the paradigm to versus just thinking about the evenings as what to do to improve our sleep. It's all, not all, it's a portion, but it's a big shift, a paradigm shift to start thinking about your days and how you're living your days and how they get mirrored in your nights. So how you are in the day, if you're, you know, breathing shallow and short and you're anxious and you're stressed and you want having to think that that would not show up in your sleep results is really just a divorcing of what we know of our kind of overall holistic biology.

Katie: And another specific question that I heard from quite a few people that I would guess you have tips on is women who are in that perimenopause or menopausal age who then see differences in their sleep, or especially seem to wake up in the middle of the night or have trouble either falling asleep or more especially getting back to sleep when they wake up.

Mollie: Oh, yes. That's such a huge one. So, wake-ups now I will say across the board for anyone listening no matter the gender or age, there are a ton of reasons for wake-ups. I actually had a client that called it forensic sleep or some of a version of this like and really the point, the takeaway with that is that there's, it does take some digging to find out what might be at the source for you with your particular type of, in this case, wake-ups. So I can, one, kind of rattle off a few of these, and often these will apply to women of perimenopause, and menopausal age, and even sometimes post-menopause but there might be a few more certainly keys to this as far as hormonal shifts that might be at play. But often these can then send things even more awry.

So the first one I would say that often can really affect women and we see to see this other change that I did not mention in our infradian rhythm, which is also our glucose levels. So we tend to see a higher kind of resting glucose state in that second half of our cycle versus the first half. And so during that period, if we are also then leaning into some of those cravings because we are having that higher resting glucose, we're looking for our highest, you know, yields item that can get us the most energy return, which often on the short end might be the things that maybe don't benefit us as much. So it might be the sugary, the process, the what have you. And if we're doing that, then we're creating that instability in glucose. And with that, that can often be for these, for women that are dealing with this can be a really fantastic place to begin is the balancing of our blood sugar. Because I think many of us might not realize just how much that shows up in our sleep.

So we did a study or not a study, but we did a, just a focus look at a small group of individuals at Levels. So the continuous glucose monitor company and people wearing Oura Rings so it'd overlay the data. Some of the things that we would find would be that there would be this tendency to the wake-up periods that were logged on the Oura ring, they would also have corresponded with dips in their glucose at those times. The hypothesis around that, and these are nondiabetic individuals. So the hypothesis with that is that when we're having that crash, then presumably, it's a stress response for a body, for a body and cortisol, adrenaline and sort of that type of wake up that you're really up that can be so frustrating because it's not just like up go to the bathroom, fall back asleep, you are awake.

And so that stress response then tends to be very frustrating because what we're creating there is a snowball effect that tends to happen because now you didn't get sufficient sleep the night before. Now, even just with a night or two of insufficient sleep, we tend to also have a higher resting glucose state. And so from that place, now you're kind of having this uphill battle because now you're more unstable during the day. And then that carries onto night if we don't interrupt this pattern that can get really pronounced, especially when our hormones are shifting or difficulty flushing estrogen, and, you know, maybe there's irregularities around progesterone, all of these things. This can be a fantastic place to begin. So, I really do, we're a big advocates at "sleep is a skill" of technology. So if you do have the means-testing how things like continuous glucose monitors, even just for a short-term to get a kind of a gauge of where things are at, at both parts of your cycle as well, then that can be really, really eye-opening.

So that would be one basic place to begin. But then I can also share that there are a ton more there's something called chronopharmacology, which is really the timing of our drugs. And so I think it can be underestimated just how much a glass of alcohol can show up in your results, how much some THC can show up in your results. And then things like coffee, I mean, all these really common types of clinical drugs, but then we also have prescription drugs. We have our supplements that are really, truly are drugs. And then so from that really doing an audit of seeing what are some of these things that we're taking in that have these drug-like effects and how are they affecting these wake-ups? And that's just a couple of those top-down ones.

Katie: Awesome. And I know there's like a million more directions we could go related to that. And hopefully, we can do around two and around three, one day.

Mollie: Oh, I love that.

Katie: Awesome. Well, people who want a jumping endpoint today, I know you have so many resources that you've created over the years, where do you recommend people find you and start learning more?

Mollie: Oh, absolutely. So, at [sleepisaskill.com](https://sleepisaskill.com), we aim to provide as many sort of practical and free takeaways as humanly possible. So, on there, you can take a sleep assessment and then get an auto-triggered response back with some resources that tailor to what you're dealing with with your sleep. You can also sign up for a weekly sleep newsletter. We aim for that to be the most obsessive sleep newsletter on the planet where we aim to put as many sort of resources, but also, you know, kind of sleep experiments. And we encourage the readers to also send screenshots of things that you're finding and kind of takeaways. So, we really wanna be little detectives in this sleep area and actually make this a lens for improving our life as a whole to start really becoming aware of, oh my gosh, these behaviors have a really visible and point to affect of on a result of our biology.

So you can sign up for that newsletter. We also have our weekly podcast as well. And then if you are really, really struggling, we also have options for small group trainings where you do wear a sleep tracker throughout

the course of the time when you're doing this kind of 90-day looks that's our flagship offering is a 90-day kind of journey through sleep and sleep optimization. And from the end of that, our aim is that you have a wild amount of tools and awareness in the area of sleep. And you've also gamified this and you're surrounding yourself with other people that are looking to do the same and starting to experiment and seeing what's at the source of some of the hiccups for you with your sleep. And we also have one-on-one options for that as well. But lots of new things coming, and we're always looking to kind of explore some of the sleep gadgets and you know, different things that are on the market to make sense of what makes sense to invest in and what, you know, maybe you could kind of leave to the side.

Katie: Perfect. I'll put all those links in the show notes for you guys listening while you're on the go. Those will all be at [wellnessmama.fm](https://wellnessmama.fm).

This podcast is sponsored by Just Thrive Health! You've probably heard me mention this company before and their products are staples in my house. Their spore based probiotics are the best I've tried and my whole family uses them. I also really love their K2-7 which is sourced from chickpea natto and is the only pharmaceutical grade, all-natural vitamin K2 supplement with published safety studies and it contains just enough zinc to allow the K2 to be absorbed and utilized efficiently. Think of it like the traffic cop of your body. When it comes to utilizing Vitamin D and Calcium, K2 ensures they're being managed correctly and traveling to all the right places. Moreover, Vitamin K2-7 can be found in literally every tissue of your body, making it a necessary and critical activator in many key bodily health functions. This makes it helpful for heart health, bone, brain and nerve development, and overall healthy growth and development. My older kids have all started taking it daily because they notice how much better they feel, especially after workouts, and it seems to especially make a difference when they are in growth spurts. I also find their IGG product helpful for immune and gastrointestinal health, and truly haven't found a product of theirs that I didn't feel a difference from. Check them all out and see for yourself at [justthrivehealth.com/wellnessmama](https://justthrivehealth.com/wellnessmama). Use code `wellnessmama15` for 15% off

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And then the last two rapid-fire questions. The first being, if there's a book or number of books that have profoundly influenced your life and if so, what they are and why?

Mollie: Oh, yes. Okay. So, this is such a hard one and I would say interestingly it would be "The 4-Hour Workweek." I mentioned that part of what Blake and I, my fiancée, did was we went out to go do the digital nomad thing. And the thing that I didn't share was that, so the first part, it was the genesis of this entire thing,

which seemed like one of the worst things that had happened in my life. I felt like it was just an absolute breakdown of everything, my life, not working and culminating to this element of not being able to sleep. And it felt like the lowest moment. And so that all came from this attempt to do the digital nomad life and on the plus side, and actually during that period, I thought I was never gonna be able to travel again, never be able to do, you know, just have a big life that looked anything like that book.

And yet on the flip side, the thing I didn't share was that we did actually, once I started to regain workability with my sleep, build up my confidence in my sleep because it really was in the realm of sleep anxiety. So then from that place, then we did end up becoming digital nomads for about three years traveling internationally, Southeast Asia, back and forth to New York. And that book really helped open the doors to doing hard things and doing things a little out of the box. And even when you fall and stumble to how to get back up and keep going. So that was a really big one for me.

Katie: One that had a big impact on me as well. I haven't done the digital nomad much. We've taken the kids a few places, but not a lot yet. Any parting advice for the audience today could be related to sleep or entirely unrelated?

Mollie: Oh, good question. So I would say parting advice is to take on this philosophy, that sleep is a skill. And I'm not just saying that just from, you know, to belabor a point, but really to shift to a whole new ethos around this thing that we do every single day. You know, I think for years, exercise and nutrition, very important things for wellness and mental health. And they have gotten sort of top-tier attention and sleep has been a bit of an afterthought. And I think for us to start to rise sleep to that, certainly the level of those two and understand the interconnectedness of this, but even to put it on the foundation of the pyramid of wellbeing, I think is a tremendous place to stand. And from that place, the fact that we can start to consider this as a skill, because truly everything that we're doing in the realm of wellness, I've never stopped my fascination with sleep.

It just has gotten more pronounced an exciting way of, oh my gosh, I didn't realize that this one thing that I was eating was affecting my sleep results at night. I didn't realize that thinking about whatever stressful thing at night was gonna show up tangible and objectively in truly measurable data which is really a fascinating place for us to stand. And I think so from that place if we like wipe the canvas and it's just a blank sheet, as far as what we know about sleep, if we start from the beginning, then I think it's liable to be absolutely fascinating and life-changing and to really act as this trojan horse by which all of these other areas of wellness get handled. Because if you really, spoiler, if you wanna get absolutely fantastic measurable sleep, you have to do all of these other things that certainly Katie has devoted her life to sharing about because they'll show up in your results. You know, day in and day out. It's never really done. It's an opportunity to continually improve upon a skillset to levels of continued mastery.

Katie: And more to explore for us in future episodes, I'm very excited to have you back, but thank you for your time today. I know that you do lots of work with lots of people and I'm grateful that you took the time to share today.

Mollie: Oh, well, I'm so grateful for you. I'm so grateful for you having just years of really getting out this information that makes such a difference for people and for absolutely living your brand. I loved you did a story the other day where you showed just a transformation for yourself and your own health and wellbeing. And I think that that is absolutely so inspiring to me and the masses. So we can't even quantify the difference that you've made in the world. So thank you so much for what you do and thank you for just allowing the opportunity for others to, you know, join your forum that you've created.

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

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