Introduction to Sleep, Chronobiology, and Circadian Rhythm

Welcome back, everybody. It's Dr. Wells. I'm hosting the Sleep Deep Summit. New Approaches At Treating Sleep Apnea And Insomnia. Now, the next interview is going to be really fantastic.

I'm going to be talking to Mollie Eastman, who is the creator of Sleep is a Skill. Now, that's a company that optimizes people's sleep through a unique blend of technology, accountability and behavioral change.

And she was inspired to do this after overcoming her own struggles with insomnia. So she's right there with us. And she also took a deep dove into learning about chronobiology and how it can benefit our overall experience of life.

Now, she's also the host of The Sleep is a Skill podcast, and she's dedicated her life to sharing the forgotten skill of sleep. Mollie, welcome. Oh, thank you so much for having me.

I'm really excited for this conversation. I am, too, because I think it's more important than people realize. So I want to really bring that up into our discussion today.

But I wonder if you can start with just really outlining the basics of chronobiology and circadian rhythm. Absolutely. I know we were chatting before we record about some of the intentions that we have for this conversation.

And certainly my goal despite, well, you know, touch on some of these words that can land, like what is this conversation about? How does this apply in my life?

And yet my commitment in this conversation is definitely to make this as practical as possible. But part of the part of the means to that is one of the things I've found for for myself and for so many other individuals that we work with, often knowing the why that some of these things that we're going to talk about are so important can really help create a different way in which we're taking action on these things that we're going to discuss.

So with that in mind, this two pieces of, you know, vocab for this conversation chronobiology, circadian rhythms, circadian rhythm, entrainment. What are these words?

What do they mean? Chronobiology is a science of time and how time affects our biology. And I am so fascinated by this area of study that it's really a big cornerstone of the things that we do with the people that we work with, too.

So as a solution or a path for improving their sleep that I think we're going to see a lot more of kind of a lifestyle design through the things that we're understanding about time and how time will impact our biological results.

So that's the conversation around chronobiology, circadian rhythm. Within that distinction is this 24 hour rhythm kind of alignment with the rotation of the earth that previously for thousands of years, when we were more outdoor creatures, we would have been just sort of naturally aligned with this.

You wouldn't need a company called Sleep as a skill as much you'd make the argument for the most part, because things were kind of just aligned by nature, because we were so part and parcel to the rising in the setting, the sun, it just that was hinged with it.

Our behaviors and the things in which how we would conduct ourselves. However, because today the average person is spending at least 90% of their day.

This is an old stat. It's most likely a lot more than that since a pandemic smartphones, Netflix, etc.. So you can make the assumption that's probably more than 90% of our days are spent indoors for the average person.

Why is that a problem? Well, it so appears that for the average person that is spending so much time indoors, it is cutting us off from these rhythms of nature in ways that we're only just now beginning to understand.

Circadian Cues: Light, Temperature, Meals, and Consistency

And I think we'll continue to get more and more information around how this affects us. For instance, this indoor lifestyle too big. Another vocab words zeitgebers which just really translates to time givers that tell our body something about what time it is and what to be doing.

When there are a lot of time givers that help in train or strengthen that circadian rhythm. And the top most important one is this mix of light dark. You know, the timing for our light dark cycles I wanted.

The second is temperature timing. Now, those two things are massively impacted by this indoor lifestyle that we're living. So and this could just seem so like, oh, well, that's that's a shame.

But that can't be that big of a deal. It's a huge deal. And we're only just starting to grasp what the impact is on things like just even two basic, really important hormones in the conversation of sleep are cortisol and melatonin.

So having a strong cortisol pulse in the morning and a strong melatonin pulse in the evening, you throw off those timing hues for light, dark and temperature timing just even on of itself.

There's way more. But those are some big ones, even what you're left with is this less optimal, less robust strength of your wake sleep kind of, you know, dynamic compulsion to be asleep at around the same time and waking up at around the same time.

These are big, big problems when you talk about sleep and optimizing it, but also just your experience of life being impacted. So I know that was a long answer to your initial question, but this gives us a sense of how important this is and I hope leaves people with some excitement or fascination around the fact that some of these behaviors we can start to align more clearly with the rhythms of nature, get ourselves some better results with our sleep.

You know, I really love that. And I want to highlight that one of the main points in our discussion today is how these rhythms are so, so important to our long term health, to our mood, and even our waistline, which is really interesting.

And, you know, as you're talking, I'm seeing the sun kind of ebb and flow on your face. And I'm up here in Minnesota. The sun is actually coming in from my window, even from the winter, as it's lower in the sky.

And that's a little bit unusual. Unusual in Minnesota? Yeah. But, you know, this this relationship with the sun and the relationship with nature is not something that we can discard as unimportant.

And I think that, you know, that's a theme that I really want to bring to people who are having trouble with their sleep and their wake. And I've always seen my role as a sleep doctor, not just limited to sleep, but to a 24 hour period.

Yeah, because it's not just sleep we're talking about. It's your also your experience of wake. So I can't wait to get into the rhythms and how they impact daily lives.

Where would you like to start? Yeah, well, one, just to comment on what you just shared, even though you're still the astute point of the fact that where we live influences some of our results.

Now, health, geography is a real thing. The fact that where we choose to live we know can influence some of our health results. And I was someone that lived to your point around Minnesota.

I lived in both Maine, grew up in Maine and lived in Manhattan for, you know, over a decade, went to school at Syracuse and these northern latitude locations.

And part of my move to Austin now had to do with the lifestyle design around being able to be exposed to sunlight more routinely. Because in my estimation and for some of the things that how I want to design my life or that was so important.

Now, I'm not saying that one, we can always do that. And two, that you have to do that. But do want to get curious about wherever you choose to reside that it has particular impacts on your health results.

And get curious about some of the things that you can do if you are in, say, a northern latitude location in the middle of winter and you're not having a strong sun opportunity because the sun is not as strong in the winter months.

And your opportunities to get vitamin D, which is crucial to your sleep results. Vitamin D connected to serotonin, which is its precursor to melatonin.

And so many of us are deficient in that. And at certain points throughout the year because it is dynamic, you can put yourself at risk to impact your sleep routinely and that can often for many people be a undue eminence to them.

Source Points. So if you are in some of those locations, get curious because there are things that we can do to mitigate those impacts. But to your question of where to start, I think one of the things that I'd like to leave people with, if you get nothing else out of what we're talking about, is that one sleep loves consistency, loves consistency.

And so from that place, how do you start to build a circadian aligned lifestyle? And really, you know, if you think about in your calendar, so one of the things we have our clients do is to sit and create and design this circadian crafted day and knowing what some of those pieces that we teach them that are some real key contributors to circadian cues.

So some of those are light timing, temperature timing, meal timing are really, really popular and troubling, one for a lot of people. And some of the things that we are asking of people are a little outside of, you know, societal norms, eating, ending your meal, timing a bit earlier than a lot of people are doing that are that are.

So meal timing. There's exercise timing, there's drug timing. So that can look like your coffee, alcohol, THC, your supplements, your prescription medication, just kind of having an audit and being aware of the timing by which you're taking these things.

And if all of these things are serving you in, you know, communication, of course, with your doctor and another one being thought timing, which is a fascinating one, which is often is where people begin for traditionally for helping to support sleep.

So CBT cognitive behavioral therapy for insomnia is meant to be the first line approach if you are dealing with sleep difficulties. And so that's about the types of thoughts you're having and the timing of those thoughts.

And within this kind of chronobiology umbrella thoughts actually follow a diurnal pattern of some of the things that we're discovering, which is fascinating in and of itself.

So knowing that the types of thoughts you're having by day are likely of a different flavor than the types that you're having in the evening, and you can kind of corral these the more you understand those elements and the impacts that those can have.

So that's kind of a brief overview of some of these time givers that can influence our internal clocks. So of course, we have our master clock, our super charismatic nucleus in the brain that acts as this kind of beautiful choreographer to the peripheral clocks in every cell, virtually every cell and organ in our body.

So you got trillions of cells that have these clocks looking to stay on time and being directed by that master clock. And we have so much of a say in how we're tuning those clocks.

I know you said that you're a very punctual person, which is amazing. And from that punctuality, that's what we're looking to do with our clocks. Help keep them really punctual, well tuned, well timed.

And life can really work in an unfold in a particular way, including our sleep results. The more tuned these clocks are, and they do have to kind of have this resetting process every single day.

So if we know that sleep loves consistency, what is one of the first place that we can begin? Well, we can't always choose when we fall asleep because, you know, there's a series of reasons as to why, but we can have a say in when we wake up.

So our wake up timing, setting up a lifestyle that we're waking up around seven days a week, about the same time, which is much easier said than done.

And even when people are listening, often we hear people say, Well, I'm pretty much like that. But then we look at their stats because we do a lot with tech and sleep wearables often.

Then we look and then, yeah, maybe they are good about four days out of the week and then the weekends come and that's when they start sleeping in or long naps or what have you.

Morning Light Exposure and Resetting the Body Clock

And so for many of us, I think we can have the reminder to pick that wake up time, keep that seven days a week, even if it might, you know. So say if you're someone that has to wake up at, say, 530 in the morning during the weekdays, the inclination might be, well, then I'm going to sleep in till 730 on the weekend.

We would like to design a lifestyle where maintaining that on the weekends and how can we make this empowering for us so we're not feeling at the effect of it and what have you, but creating that and then as quickly as possible of when we're getting up, we're getting up and out so that we're getting that bright light exposure in our eyes, but not from behind a window.

So like, you know, I've got these lights coming in on me, but it is still from behind a window. So that does adulterate the, the frequency of the light that I am getting.

And there are certain studies that show that can take anywhere from 50 to 100 times longer to reset our master clock right from behind a window than just simply getting outside, which seems like such a small shift.

And if you're in a space, you have the option to open up your windows. I mean, I've done some really weird things in different places where I'm at, so I'd say I'm at some, I don't know, Airbnb, I might and it's cold out.

I might be in like Canada or whatever speaking or something. And so I'll get all wrapped up and, you know, covered up and whatever warm thing open up the window.

And that can be like a really quick workaround if you have like a rush morning or something, but ideally you're designing it. So, so even if it looks weird, do that, but still you're designing it so that you're setting up a lifestyle where you can have a little bit of that time in the morning.

We're talking like, you know, even 10 minutes so that you get out a nice walk. You know, sunglasses, no hats and getting that light in your eyes. And the difference that this can make from that helping to not only reset that master clock in the morning, but imagine almost this kind of imaginary countdown clock that's now going to be contingent on when did you get that first bright shot of light to the timing when, you know, say, 16 hours later that you're now getting sleepy in the evening?

This is a big deal because now that hinges on that. If you want to ensure that you're not getting sleepy until much later, you're delaying that bright shot of light.

And that's what many of us, unbeknownst to us, are doing, and then wondering why we're struggling to fall asleep at night. So much great information there.

And I want to really underscore this point, that light is the primary time giver. Sometimes I'll explain it to people with the idea that, you know, your brain is encased in a box, your skull is dark in there.

So the way that your brain knows what time it is and what it's supposed to be doing is it's it's getting the information from the windows, your eyes, Europhile.

I love that. And so you're kind of giving that message to your brain about what it's supposed to be doing. My brain also snagged on your word adulterated, which is awesome because I like explaining things in a way that are memorable.

And yeah, one thing that I think about, especially during the winter and at a high latitude, is the sun is quite important enough. This is I only had to throw that in just to try to keep up with your vocab before we hit record.

Your vocab was, like, impeccable, so that should give you some of that. That's amazing. And I love it. Puts in yeah, I love that. It's impotent and it's not as effective, especially through clouds and at a low rise.

So this is something that I use. I use a light box when I first wake up in the morning and this is one that is adjustable. I just want to point this out to people as an option because, you know, that wake timing that you're describing is so critically important to help the brain establish that pattern of when to sleep and when to be awake and it's almost like the light reinforces that and it's worth it to do the weird things like bundle up and go outside and and get that on.

I unadulterated light exposure. I wonder if you can describe for everyone watching the benefits that they can expect when they take that extra step of regulating their timing and regulating their light.

I love that. So first off, one of the benefits that you can expect is that you can start to think of light like a drug. So phototherapy so light therapy is a real, real thing.

We've got plenty of studies to point to that light and its effects are strong and measurable enough to produce a results that can deem itself worthy of paper studies, etc.

We've got plenty of those to support this. So first, thinking of light as a drug, what is one of the first impacts that we're talking about sleep that you can expect?

Well, one, the presence of bright light. One of the great things that it does is sort of turn off the faucet of any melatonin that may or may not be present, especially if you've been struggling with your sleep.

One of the things that some people coming my way and part of my story is one of acute insomnia and just dealing with these clocks that I'm talking about.

Head, they were just out to lunch. They were not they're not tuned, not aligned. And during that period, that strong kind of bookends that we're looking to create of a strong cortisol pulse in the morning, cortisol can get a bad rap, but it's so crucial for us to have almost our natural coffee to kind of wake us up in the morning at the Goldilocks level, not too high, not too low.

And then same things apply for melatonin to have a really strong melatonin pulse in the evening. Now, having that kind of timed pulsing of those two sleep connected hormones, sleep wake hormones are really, really connected to light, dark cycles.

And of course, you can't talk about Light's Effect without talking about darkness, effect and the effects that come from darkness. And those are measurable as well.

So one of the things that you can expect is say you've been dealing with really acute kind of sleep inertia, which is one of the things that all of us deal with.

Sleep inertia when we first wake up is the simply the transition from being in a sleep state to an awake state. But some of us are dealing with more a kind of a zombie like period.

It takes us much longer to wake up and transition out of that state, especially if your sleep has been poor, you know, maybe dealing with certain things or an inconsistent sleep, wake schedule, etc..

So one of the best ways for us to help to honor this and help minimize the impact of that sleep inertia and just like shorten that timeline is to apply that bright light to our eyes at that consistent time.

And of course, there might be a little bit of ebbing throughout the seasons, and we are meant to have these seasonal rhythms as well. But with your applying of that, then you're turning off any leftover melatonin, you're shifting over to cortisol.

So it's having a wake promoting effect, a dopamine effect. And with that resetting of that master clock, it's now being tethered to when you're going to produce melatonin in the evening.

So oddly, melatonin is sort of connected to your light exposure. So to kind of put this all into practical terms, I go to these events that are there's entire conferences around sleep, believe it or not, which often people think is funny.

But and from that, some of the big takeaways are truly as simple as bright days and dark nights. And that's like our whole game, because what we're dealing with is that the average person is in an environment that is on average 100 times too dim by day and on average 100 times too bright in the evening, even as compared to our brightest moonlit evening, which, you know, most of us are not even seeing nowadays.

But so so that's a big, big problem. And there was actually just recently a scientific consensus that was released, which was referencing almost 250 circadian scientists.

And they were drawing upon almost 2700 peer reviewed papers that were pointing to the impacts of this problem, of that 100 times to dim daytime and 100 times too bright evening.

And they're actually now calling for warning labels on light bulbs when used at night. Right. And this is a big deal because most people how innocuous and basic is the use of a light bulb.

But most of us aren't thinking twice about this, having no clue that some of the impacts of a course around our sleep in this conversation, but they do extend much further beyond that.

So cancer hours are one of the things that are cited. Diabetes, also psychiatric disorders, reproductive disorders.

Nighttime Light, Phones, and Blue-Blocking Strategies

So we have this whole laundry list of things, obesity as well. Can't forget that. So all of these really real world effects, just simply from the choices that we're making of our lighting environment.

So what's the practical takeaway here? It's to start leveraging the wake, promoting effects of light by day at the right time. So we want to align these as closely as we possibly can with the rhythms of nature.

Also know that some of us are more sensitive to these light, dark signals than others, and we also there's some research that's pointing to around mental health disorders that some of us might be even more affected by some of these changes.

So there might it might be even more pressing for some of us. It's important for all of us. But even from a mental health perspective, it might be just even more crucial for us to be mindful of this now.

Secondly, it's the element that we're getting that wake promoting effects by day and then that kind of downregulation effect of simply turning the lighting down in the evening.

And I don't just mean down because we can't still use those light bulbs that were most of us are exposed to the LEDs that have blue rich and then think we'll just dim them and then it's fine.

Unfortunately, we really do need to get light bulbs that are devoid of blue light in the evening because we would never, ever, ever be exposed to blue light by itself in the evening in nature, ever.

So we really need to be mindful of this. And so what and it's a simple fix and usually very affordable. You can go on Amazon, get like a $10 bulb that say is like more red hued or orange hued.

You can even get systems like Philips used or other, you know, kind of light timing systems that can all be aligned to circadian lighting settings. So you don't even have to think about this.

Those things are all available and in the future I really foresee circadian aligned homes, hospitals, other things that would just this will all be handled and that would also include our temperature timing so that our temperature would change dynamically to support the things that we would have been exposed to a bit outside, within reason.

And those things can just help facilitate this so that we're not have to think about it so much. But until that comes, you know, just being a bit more mindful of the lighting, taking the time to make these changes on the front end, I know it's kind of annoying in the beginning, but once you get it set up, it's pretty much set up and that becomes your new lighting lifestyle for the day piece.

To get those bright light as possible. It does behoove us to get ourselves really outside more routinely because it's nearly impossible to get our lighting indoors to even remotely.

The levels that are happening outside the average indoor lifestyle is typically below about a thousand Lux, whereas on one of their brightest summer days it can get up to 100,000 lux.

And it's not just like a nice number to know for trivia. It's important for us to be aware of because it massively impacts the body's knowledge. To your point, I love that, you know, dark box of the brain.

And so think of like trying to send a message with this piddly little sad, like nightlight, you know, throughout the course of the day versus this huge surge like floodlights going into the brain.

That's such a difference in making unequivocally clear of what time it is and what to be doing. One. I love that. And you know what you're saying through all of this is how much control we all have as human beings to affect the way that we feel our long term health, our mental health.

And even, you know, how much appetite we have, how much weight we're putting on and things like that. So there's a lot of actionable steps. Now, I'm going to get real with you for a second here, because I want to bring up one of the questions that I get asked all the time.

I have my little canned response that I give because that question is so common. But I really want to tap into your knowledge about this slight exposure at night.

People really feel like it's difficult to distance themselves from these handheld electronic devices. And so the questions are, you know, it seems to relax me to go to sleep.

I've turned on the Night Light feature from my phone. Is that enough? How do I even do it without this distraction? So I'm wondering, how can you make that drive, that point home about light and how to optimize sleep to someone who's really regularly looking at their phone before they close their eyes at bedtime?

Oh, so true. And becoming so such a huge topic. You know, a lot of the the clientele that I actually specialize in is

with high stakes poker players. And I mention that because they can seem like such a distinct and different group from the average population.

But I'm finding that more and more they are living lifestyles, more connected to what a lot of us are living, which is this really these faux environments like casinos that are designed on purpose to confuse a circadian rhythm.

Many of us are in environments that are very much confusing the circadian rhythm, unbeknownst to us, and then beyond that, lots of stimuli and dopamine hits of gambling, basically.

And what are these phones more than like a slot machine. So very intoxicating. Very exciting. Now, if anyone's watching the video, this is what my phone looks like at night.

So you can get these red settings. And this is this is on an iPhone. So that you can turn it off very quickly. You can triple click and turn it on to red.

So I highly suggest that people get this. Now, how do you get this on an iPhone, the hidden feature. And if you literally can Google color filter sleep red and then it will come up tutorials on how to get that through you can go to our site and we can guide you through that, etc.

If you have an android, you can get apps like Twilight and so that will allow to turn the entire screen red. And because the built in options for just sort of like their night mode are really insufficient, they're better than nothing, but they're really insufficient to making sure that we are helping to support this alignment of these rhythms in nature.

Now even with that, this can get so the conversation of a light in the physics of light can get so layered and you can have an entire podcast, at least in of itself, on just light.

So there's still problems with staring at that. So there's a flicker rate that's coming out of the phone even with that red covering. And so that can be a bit more activating.

So if we're looking for true optimization, then we want to rest on our laurels with that. If you are wearing things like blue blockers, you can make sure that they are orange or red tones.

So and blue blockers are controversial. And there was a study that was questioning the integrity of blue blockers on their effectiveness. And yet when you look at some of the studies that are having some of that, often they're using things like clear blue blockers that are just absolutely not not the move, not things that are going to affect your results with your sleep.

And the way that you can know this, too, is that they should literally do what they say. And so what I mean by that is you should be able to put on your amber or red lenses and look at something blue, and you should not be able to really see it.

Like for the to the effect that I had this funny kind of kettle, this tea kettle saying that would glow blue. And I had gotten I had my blue blockers on.

I hadn't really use it much in the evening and I happened to put on, I was like and I kept hitting at the thing and I thought it was broken, but it was just because the blue blockers were actually blue blockers.

And the the blue wasn't coming through through these lenses. So point being, you should be able to actually literally test these and pretty simply so so that you know that it is blocking those blues, but it's not at all a kind of wild card or free card, I guess you could say, to be able to then just be swimming in blue light and then just put these on because all it's going to do is mitigate some of those effects, but it's certainly not going to absolve you of some of the impacts of all of that.

Lights Do you want to also do your due diligence to shift your environment right to make sure you're moving some

of those things, but then that can be kind of a failsafe if you're doing certain things that you can't quite avoid.

The exposure to blue light, you're in a different environment. Maybe you want to watch a show and you can't quite remove all of that from the TV or whatever.

Those would be some of the steps that you could take, but with your actual phone. A couple of things to be aware of. With that. We are looking, at least in our sleep environment, to have somewhat of a set up for a system so that you're not being impacted in the lead up to sleep with this thought timing problem.

As for the wine and the light impact for another, so one, the darkness timing piece, then we'd want to get rid of all of the light that's coming from those lights, from the phone in and giving you a really sufficient time kind of bare minimum, at least during an hour.

You know, try to be realistic because I know more and more people are struggling. They're doing this either on their phone right up until the moment they're going to sleep.

But, you know, just giving yourself a bit of that downregulation time, you think of it like a plane that's taking off. It needs some of that runway to kind of set it up itself up powerfully.

We want to do the same thing with having enough time for the brain to kind of transition from all the excitatory things that are coming and going and shift over to that turn down period.

Social Jetlag, Recovery, and Sleep Support Resources

So when just giving yourself some workable time without some of these pieces of tech too, so that you're not getting hit with that both light and the the thoughts that can come about as a result of that excitement that might be on the content that you're taking in.

And it's not to say that we haven't found people be able to kind of have it all like meaning we might have people that have setups where they've gotten their particular Kindle set up and then they've got it covered with certain you can get like read kind of gel covers so that it's not like blinding you with all this other kind of full light and just ways to make it workable.

So then you can relax and read your book from even your piece of tech, but then not have that connecting to all this other excitatory content. So those are some ways that hopefully, you know, you can still not feel like you're being taken out from some of the options from tech and you can kind of have it have it all.

You know, that's really helpful because so much of what we do is not black or white. So like we are, you know, doing it 100% or 0%. There's a lot that can be managed in between.

So those are really great ideas for how to edge more to a light exposure pattern that is beneficial for sleep and wake. And you know, I really love this discussion because it brings it home with the health effects.

And this has been known in the shift work literature for a long time. So shift workers have higher rates of cancer, infertility, diabetes, overweight and on and on and on.

And that's kind of the extreme, you know, people who are working overnight instead of sleeping overnight. But there's also a thing called social jetlag, which is a little bit like shift worker lite.

Let's talk about that and its effects on health. Shift worker light. Love that. Yeah, absolutely. So social jetlag, it's one of the things I see so, so frequently.

And I think it's another kind of practical take away for the listener is one when we are dealing with kind of poor sleep or just schedules where we're trying to, you know, fit it all in.

Sleep is getting kind of the thing that's getting hit. What we're seeing is that there might be stretches of time where people are having kind of that consistent wake up time and.

Then the weekend comes, then the time where they are allowed to then manage their own sleep. Wake cycles and meaning like of course is going to apply to all of us no matter if you set your own schedule or not.

But there are stretches of time where we see four people, but I think it could use a new term. It used to be called social jetlag, just because, you know, the thinking being that most of us have kind of a 9 to 5 and then in the past and then the weekends would come and then just socializing with skew things off.

Now, even post the pandemic, we saw that just on our own by ourselves, that we might then tap into staying up later, in later and having the effects of the social jetlag even on our by our lonesome.

So it's kind of self-created jetlag now what does that look like? You are having the effects of jetlag, but you never got on a plane. You just simply changed the timing of your bedtime and awake time enough that it was definitely confusing for our clock rhythms in this entrainment process that we're looking to have.

So with this, what we're looking to create is as much of a consistency like we spoke to of that wake up time because you can control that piece. But in alignment with that, I think it's crucial for all of us to understand that with social jetlag, it doesn't have to go like that.

And that one of the methods that we speak to is so counterintuitive. It's kind of thought of as like the do nothing effect or method. And what I mean by that is often how this arrives is something happens and we've stayed up later or maybe, you know, we really because often with insomniacs, people that are struggling to fall asleep, stay asleep or early morning awakening, they are like trying everything to support their sleep.

It's not a matter of not a want and yet they're having these rough nights. And so one of the impacts that we might see is wherever the source you went to bed too late or you woke up in the middle and you couldn't get yourself back to sleep, something happens.

Instead of trying to cope with that by impacting your choices the next day, like one sleeping in later too. Trying to get longer naps three trying to go to bed earlier, which all of these things make sense in a logical sense.

It's like, Well, I struggled. Why wouldn't I try to make up for that? And yet one of the things that we find is that while it might make sense on the short term, what it's actually seems to do is to further throw off that rhythm that we're looking to entrain that circadian rhythm.

And so now you're setting yourself up for if you sleep in later, kind of that not only social jetlag effects, but also think of metabolic jetlag. Now, you're not going to get hungry until later.

Now you're going to move your meal timing out. So all these other cues are going to get thrown off. Now, your temperature timing is going to be thrown off because you're not going to drop in your evening body temperature at the same time.

So all these things are so beautifully choreographed if they're on time and if they're not, things just like the wheels are flying off. So you're not going to get tired at around the same time or you try to go to bed earlier because you're like, I am exhausted, let me try.

But then you find yourself up at all times because the body is very confused of What are we doing? This is not kind of our normal protocol. So what we want to do is one aim for that consistent timing.

And then on the times where it doesn't quite go like that, of course we all have dynamic and, you know, lives and things come up and you go to a wedding or, some big thing happens and now things are skewing later.

What we're looking to do is not overly compensate, not have a ton of coffee the next day, not sleeping, not nap, go

to bed super early, all of those things.

Instead, you just really aim to do pretty much business as usual. You could swing it out a little bit, you know, maybe about an hour, hopefully, maybe 45 minutes or something like a rough, rough night.

But hopefully you're kind of tethering that wake up time to around the same time and then kind of proceeding as usual if you have a nap, making it kind of a power nap, say around like 20, 25 minutes on the earlier side of your day just to kind of patchwork yourself into, you know, handling the rest of the day and then getting yourself to bed at around your same time.

And the body will go to work on getting this kind of rebound, sleep, which is a really great thing. I often use this for myself and other clients that when they do have a rough night of sleep, one of the things you can often count on to some degree, maybe it's usually the subsequent night, but at least the next night or two is typically this rich rebound sleep because the brain is going to go after the sleep it was deprived of on that rough night of sleep.

And so it's kind of a cool and romantic, miraculous thing where now it's going to seek out that missed opportunity of that really rich deep sleep or REM sleep or what have you.

And you're going to be left with feeling more restored and being on a system sort of timeline that we're looking to create. Wow. That's a really amazing effect.

And, you know, I think all of the things that you've said have been so practical, so applicable, I love your style of communicating, especially as you're kind of managing your light at this.

I don't know. My life talk about my late. I'm like in a fight with my light right now. There's a circadian clock on your face, literally. It's like, amazing.

It's like, I'm Amish or something. It's like, countdown has begun. So, Mollie if people want to work with you or learn more about what you do, where would they go to get information?

Sure. So sleepisaskill.com acts as kind of a bucket to do a lot of different things. So there you can take a sleep assessment and get quickly kind of personalize things that you can do based on what you're dealing with with your sleep right away.

You can also sign up for our weekly newsletter that is really, really aimed to be supportive in your journey of improving your sleep results. And so we've been doing that every Monday for over five years called Sleep obsessions.

So not only just kind of sharing some things that we're discovering that are really helping to support people in our cohorts and groups and you know, one on ones, etc..

But then also sharing some of the latest studies in sleep, sleep facts, things that are, you know, supporting the community. So that's our newsletter and that if you are struggling and you want further support, every client we work with, wears the oura ring to just really track and log their results.

And if people are dealing with, you know, kind of they want to have a little bit of a vacation from those stats at different points. We're also mindful of that.

So there are ways that we can either set things up on airplane mode so that you can have, you know, just all day like once a week kind of a download of your sleep results that you're not kind of getting that nocebo effect, which some people can have on a daily, you know, drip of their sleep stats.

But so throughout that process then we have cohort groups that we have small groups that people are going through our curriculum throughout these eight week long programs.

And then if you're looking to have more further support, we have one on one options and then we do have one off options that are sleep wearable audit.

So if you're wearing a tracker particularly, we especially hone in on things like aura and woop. And so then we can go through your data and then give you kind of tailored things that you can do to move the needle on those results quickly.

And those can be kind of more one off things. And then you can go off and then impact and put to work the things that we discuss and then we actually asset within 90 days you send screenshots of your improvements with your sleep and that's been a really cool way to just show how tangibly can impact your results with your sleep quickly.

Amazing. I mean, I think that is one of the main messages I'm hoping to give to people today about how tangible and accessible these improvements can be and it's worth it.

Yeah, you're obviously a wealth of information. Thank you so much for talking with us and and sharing your knowledge. Well, thank you so much for the work you're doing and putting together a platform like this.

I know these things are not like for the faint of heart and the amount of kind of organization that goes into all this. And it's just really incredible.

And the stand that you're taking for this area is not lost on me. So I really, really acknowledge you and thank you for having me as a part of it. Amazing.

Thanks so much, Mollie. Thank you.