Using light to transform your sleep hormones

Guest: Carrie Bennett

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[00:00:10] Alex Howard

Welcome, everyone, to this interview, where I'm super excited to be talking with Carrie Bennett.

We're going to be exploring the importance of morning sunlight, the impact that it has on serotonin and melatonin production, melatonin being the primary sleep hormone.

And she'll also walk us through the impacts on mitochondria, which is our cellular energy production, which is both important in terms of metabolizing, making energy, but also supporting our tissue repair and cell repair as well.

To give you a bit of Carrie's background. As a college athlete, Carrie suffered from chronic joint pain and insomnia. After her first child was born, she developed gut inflammation and adrenal fatigue.

Armed with a BS in Biology, a Master's degree in Clinical Nutrition and multiple certifications, Carrie saw the root cause of her failing health, ultimately finding circadian and quantum biology, which she has discovered is foundational to health and healing.

Carrie currently sees clients in her private online practice. She also teaches courses in applied quantum biology as a faculty member of the Quantum Biology Collective, an instructor at Kalamazoo College, and via her online platforms.

So, Carrie, welcome. It's great to have you as part of the event.

Carrie Bennett

Thank you, Alex. I'm so excited to be here chatting with you.

Alex Howard

So I think the best place for us to start is the importance of morning sunlight. I know this is an area that you're passionate about and yeah, so let's start there and then we can follow the path.

Carrie Bennett

Absolutely. I think when people think sunlight is beneficial, we don't necessarily recognize that it varies throughout the day. And so I like to start off by getting people to see sunlight through a prism

and recognize that sunlight, when it splits through a prism or through a rainbow, we've all seen it, it divides up into the colors of the rainbow.

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And there's also colors that we can't see that it's also giving us. There's the infrared portion of the light, and there's the ultraviolet. And it doesn't all come at us at once at the same intensity.

So in the morning, the sunrise coming over the horizon, it's a signal because of the colors that are there. So before sunrise, if we were to go outside, we have these receptors, like these little sensors for the different colors of light. Some of them are in our eyes, some of them are on our skin.

And before the sun would break the horizon, we would recognize that the world is full of red and infrared, which are very soothing frequencies. They're actually applied therapeutically, right, in devices like these red light therapy panels that are becoming very popular because they're so soothing, healing, anti-inflammatory.

So we go outside at that time and it's like we get a dose of calm, anti-inflammatory. But as the sun breaks the horizon, the intensity of blue light from the sun picks up, and we've got these little receptors, these little sensors in our eyes that catch that cue and they start to communicate to our brain what time of day it is.

So it literally helps set our circadian rhythm. And I'm certain people have heard about this circadian rhythm being important when it comes to sleep, but I can dive into that a little bit about how, like, the clock in our brain needs to know what time of day it is in order to sync all of our tasks, including needing to know when to go to bed.

So that little bit of that initiation of red and blue light in the morning into the brain, it almost starts our day clock. It's like, okay, this is the start of Carrie's day. And then it's going to track the intensity of blue light throughout the day, which peaks as the sun reaches its high point and then goes away at sunset as a way to say, okay, the day is happening and then it's winding down.

And in order to be able to have an appropriately timed sleep based on our location, time of year, we have to get that morning light signal and it has to do with that blue light that triggers those sensors.

And then as the sun gets a little bit higher, you start to get ultraviolet light. And we hear good things and bad things about ultraviolet light, right? And that's for a whole potentially different debate. But what I can tell everyone in terms of how it relates to sleep is that as the sun releases ultraviolet A light, that comes first, our eyes capture that ultraviolet A.

And that is where what I call neurotransmitter magic happens. That's where brain magic happens, because we start to convert these amino acids that swim and pool in the backs of the eyes. As UVA light strikes these amino acids, it converts them into key molecules.

It takes tryptophan, which we think of as like, oh, it's a relaxing amino acid in America. It's like, oh, that's the one from Thanksgiving turkey. That's why I feel so tired after eating so much turkey, because it is a calming amino acid and it energizes them.

Photons provide energy, light provides energy. And so tryptophan becomes serotonin. And serotonin is that brain chemical, right, that's like, yeah, I feel good. Life is great. Let's get rolling.

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But the cool part about that for sleep, and there's more chemicals that get converted with that UVA light, but the cool part about that for sleep, Alex, is that that serotonin is like this store that we build up. We build up a store of serotonin because as soon as our brain senses darkness, we can start to convert that serotonin into melatonin.

And it's a beautiful cycle. And that melatonin helps us go to sleep and do so many repair mechanisms while we are asleep. So, morning sunlight is a game changer when it comes to timing our sleep and getting good quality sleep and getting good restorative repair when we are asleep.

Alex Howard

And of course, one of the challenges is that in different parts of the world, people have different amounts of access in terms of sunlight. Living in the UK, it can vary from in the peak of summer, getting that sunlight at 05:20 in the morning, which is often not very welcome, or not really getting it at all.

Yes, of course, the sun comes up at 08:00, or whatever it may be in the depths of winter, but it's not light in the way that many of us would ideally want. So I'm curious as to what the impact of that is and how we can best navigate that.

Carrie Bennett

Yeah, it's a great question because the majority of us, a lot of us, don't have that ideal window of time where the sun rises let's say 07:00 every morning and we can drink our cup of coffee outside, or whatever it is that we want to do before we have to get to work or get kids to school.

So I say, when it's ideal, because it's going to vary, there are going to be chunks of time where it's like yes this is ideal, when the timing is ideal, get it. Get it so that you can strengthen your circadian rhythm. The cool thing about circadian rhythm, Alex, is that we could even be in a cave for a little while, right? And we'll still run our circadian clock. That's about 24 hours.

So there is leeway. People are perfectionists about this and we don't have to be. You just have to recognize that those morning light frequencies are important. So get them when you can. And to define morning light, it's between a little before sunrise, when the sun starts to brighten, to when UVB is present, that's technically when the sun is 30 degrees above the horizon, right?

So there's typically about a two hour window of time. And yes, you can do it perfectly. You can take a beautiful two hour walk on the beach when you're on vacation, but you can also just get little hits of it because the signal is all that we need in order to be able to make those transitions in the brain about, oh, now it's time to make serotonin. Oh, now it's time to start my circadian rhythm.

We just need little signals. And so it's consistency over perfection. Today, for example, my sunrise happened as I'm driving my kids to school. So I roll the windows down and I tell my kids, sunrise eyes, like at the red light we look towards where the sun would be coming up.

And so you gotta make it work for your situation. And it's all about the consistent exposures, little hits, and not necessarily thinking about perfection. The other thing that I tell my clients is, consistent three minutes every day in these windows, every other day, is way better than a consistent 3 hours once a month, once every other month. So these little three minutes of time can add up and they can matter.

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So with that, it's like, how can I structure my morning to just be more in tune with the natural light? Can I make my first appointment a phone call with a client outside? Can I actually take my computer outside? Can I run my errands in the morning so I'm more likely to be in my car with windows down, and walking to and from the store and back?

Alex Howard

How much difference does cloud cover make? So if the sun is rising in the sky, but you're not getting direct sunlight because of cloud cover, what's the impact of that?

Carrie Bennett

You're still getting the light. It's still there, it's penetrating. It's a great question. It can be rainy, cloudy, it can be snowy, foggy. If light weren't present, it's called darkness, right? So the light is still there, the colors are still there.

And it really is a good game changer to recognize that, because where I live in the middle of winter, it's gray, right? It's cloudy, it's cold, it's gray. But being someone who used to have seasonal affective disorder, I don't have it anymore because I recognize that I can go outside even on a cloudy, cold, snowy winter morning. And my brain still makes serotonin.

It's going to make the dopamine, it's going to make the norepinephrine that gives me a little bit of energy. It makes the cortisol, that gives me a little bit of energy. And so by recognizing that it's still there regardless of the weather, we can then, again, it's like that excuse. You can still get outside and you can still get the light.

Alex Howard

It's reassuring because about this time of year, I say to the kids, you might want to wave to the sun because you might not see it for six months.

Carrie Bennett

Same.

Alex Howard

So you started talking about melatonin production and how the importance of sunlight in the morning is starting the process of supporting that production for the evening. But obviously, overexposure to light in the evening can also have an impact. Say a bit more about how this all relates to melatonin.

Carrie Bennett

Yeah, absolutely. So melatonin is a beautiful hormone in the body, and we actually make it in two places. And I think it's important to distinguish that, and that way we can talk about how to amplify that and then what we can do that might harm it.

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And so serotonin is made with that morning UVA light. And that serotonin, then it just builds up. It does its thing. It allows us to have some focus, some productivity to feel good about what we're doing. And it just does its thing throughout the day.

And the signal then is about, oh, as the sun goes down, about 2 to 4 hours after the sun has gone down, we really start to elevate the amount of serotonin we convert into melatonin. That is melatonin that's made in our pineal gland, so that gland in our brain.

And that's where melatonin gets made in the pineal gland and secreted into the blood. And once melatonin reaches a certain level, in conjunction with the build up of a chemical called adenosine in our brain, we physically cannot stay awake, right? That is sleep time.

And so when those axes cross, that's beautiful because our body is going to say, yes, you have to shut down now and go into repair mode. But melatonin doesn't just put us asleep, right? We build up enough serotonin so that it can become melatonin, and we reach that level to put us asleep. But while we're sleeping, melatonin rises still in our blood and in our saliva, if we were to have it tested, because it goes on and it runs so many repair programs in our body.

It really helps to repair broken mitochondria. It repairs broken proteins. It runs autophagy, apoptosis. So basically, we go to sleep to clean house so that we can wake up slightly more refreshed than we were when we went to bed. It's like a slight reverse aging process.

But the body does that all day long, too. We make melatonin inside of our cells at the subcellular level with exposure to infrared light. And that melatonin stays inside the cells and it cleans up the metabolic damage that naturally happens all day inside of the cells. And I like to tell people that it's good to get that, too. Infrared light is always present, dawn till dusk. You can get it at any time.

And so I liken it to, okay, I'm tidying up the house as the day goes. My kids throw their socks here. Okay, go put those in the hamper. You tidy it up so that at night I can do some major repair. It's like, okay, I picked up the kids' messes. Everything's put away. But now I can fix the hole at the bottom of the stairs when my son thought it was a good idea to see what would happen if he threw this dumbbell downstairs.

Alex Howard

I'm curious as to what happened, but it sounds like there was a hole.

Carrie Bennett

There was a hole, correct.

And so that's a more major repair, right? And so it's cool to be able to get the melatonin all day long. And then at night, when we fall asleep, using the melatonin signal, we have melatonin then to do some more major repairs. So when we wake up in the morning, we are in a more repaired state than when we went to bed.

[00:13:41] Alex Howard

You start talking about repair there. And one of the things you put in your notes, which I thought it was a really interesting place to bring in, is the role of mitochondria. Because, of course, mitochondria, I think often people think about them as the cellular powerhouses of making energy, but they do more than just that, of course.

Carrie Bennett

Yeah, absolutely. Mitochondria are like the brains of the cell, if you will. They are sensing things all the time. They used to be their own little species of bacteria, right? So picture a bacterium in the world. It would have to know what time of day it is, how can I make energy to correspond to the time of day? What's happening that might be a threat that I need to adapt to?

And so they still retain that ability inside of ourselves. And so that's really cool about them, so that they can sense when we're in daytime and we're productive and we need more energy, they can make more energy for us. And then when the sun goes down, they can sense, okay, Carrie is going into a repair mode. And they're the ones that signal autophagy. They signal apoptosis.

They use those melatonin signals to turn on those programs so they can literally look inside of the cell that they're in, and they can say that protein is broken. Let's go through autophagy. Let's recycle and repair it. Or they can say, this cell, it's not happening anymore. It's just causing damage to this organ. And they can turn on apoptosis and literally cause that cell to clear itself out of the tissue.

And so the mitochondria also are tied to the circadian rhythm. They need the light signals. They need the melatonin production to be able to do all those things for us.

Alex Howard

Because I think sometimes people think about sleep as being quantity of sleep, like how many hours of sleep I get or am I able to get to sleep. But I think part of what you're speaking to that's really important is the quality of the sleep.

And not just the quality from a kind of mental health perspective, oh I don't feel refreshed, I didn't sleep enough, but on a deeper level, the actual tissue repair processes that are happening as a product of good quality sleep.

Carrie Bennett

That's exactly it, right. From a circadian perspective, we release certain hormones together at certain times. And so sleep is divided into two phases. The first phase is about 4 hours of physical tissue repair. That's where we get into those really deep delta waves, that deep non REM sleep, that's tissue repair.

And that is supposed to kind of sync to getting to bed at a time when melatonin is elevating, when my human growth hormone is being released, that's that chemical that we have professional athletes trying to artificially amplify in their bodies because of how potent it is at repair. So we make it ourselves.

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And if we can time our sleep with when all of our tissue repair hormones are elevated, then we can get really good quality sleep. We can time the repair. We can let the repair happen because all these hormones and molecules are working synergistically. And so we get that tissue repair. And as soon as tissue repair is over, that's when we encode memories for the remaining bit of sleep that we have.

Alex Howard

And in terms of supporting that quality of sleep, obviously the morning sunlight is important because of the conversion from serotonin to melatonin.

But I'm also curious in terms of the importance of blocking blue light in the evening and also the sleep hygiene element of what people are exposing themselves to in terms of light in the time leading up to going to sleep.

Carrie Bennett

Yeah, that's a great point. So as the sun crosses the horizon, just like before sunrise we didn't detect blue light with all of our sensors, as the sun crosses the horizon again at sunset, we won't be detecting blue light in our environment. It's not intense enough to trip the sensors, right?

It's like having a motion detector in the backyard and a moth isn't going to trip the motion detector. A person trying to break into your house will trip the motion detector. So our sensors are keyed into a certain intensity of blue light. And after sunset, you're not going to get it in nature. You're not going to get it from a full moon even, right? You're not going to get it from the starry sky, people are asking about that quite a bit.

You won't even get it from a campfire. You won't get it from candlelight. There's not enough intense blue light to trip those, they're called melanopsin receptors, in the eyes and on the skin. And so after sunset, then we have to ask ourselves, where am I artificially being exposed to these blue light frequencies at an intensity that's going to trip the sensors?

And it's going to cause my brain to think, wait a second, I was about to make melatonin because the sun went down and there's no more blue light, but now I obviously can't do that because there's blue light. I must be in the middle of the afternoon, I must be in the middle of the day sometimes.

So you start to suppress melatonin production, right? That pineal gland goes, oh, no, let's take that melatonin down, and instead, let's start revving up the day again. Let's maybe make some more cortisol. People tell me they get a second wind, right? It's like, well, the evening is when I get my second wind. Well, that's why. You've just suppressed your melatonin and you've elevated your cortisol.

That's a hormone mismatch, a hormone imbalance. So there's ways and we say, okay, yes, we live modern lives, right? We don't live in a cave. I don't live in a cave. I have a family. We watch sporting events. We do all that stuff.

You just have to mitigate especially what your eyes are exposed to. So that's why I highly recommend blue blocking glasses, good quality blue blocking glasses, because when they're high quality glasses and they're of an orange tone to them, they're going to block the majority of that blue light.

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Sometimes they can even block the green frequencies as well. Depending on how sensitive someone is and how off their circadian rhythm has been, they'll maybe need orange, or red. But when you do that, you are giving your eyes this idea of, oh, I'm in a campfire. You transform that screen, as opposed to being this jarring blue light suppressing melatonin, you block the blue.

And that's exactly what your brain interprets it as, okay, I'm in front of a campfire. And so you can live your life. You just have to be aware of your exposures.

And then overhead lighting can be a challenge, too, because the melanopsin receptors, the sensors in our eyes, they're used to sensing blue light coming at us from the sun, up in the sky. And so they are concentrated in the bottom backs of the eyes for that angle.

And so if we turn off overhead lighting and instead use nice little table lamps like dimmer watt table lamps, especially if you can find these Edison style incandescent bulbs, these amber tone bulbs, these mimic campfire, or candlelight as well.

If you can put those on a couple of tables, go live your life. Do what you have to do. Hang out with your family, but protect your eyes. Get rid of the overhead lights so that you can start making that melatonin and use it to go to bed.

Alex Howard

You just explained to me why I have such a bugbear about having the overhead lights on in the evening. I demand to have all of the sidelights on.

Carrie Bennett

I know.

Alex Howard

Do you want to say a few words about EMFs here as well, which can be another impact?

Carrie Bennett

Yeah, sure. So EMF, the word gets a bad rep to start off with because there's a lot of EMFs in our world. That stands for electromagnetic field or electromagnetic frequencies. So the sun emits EMFs, my heart emits EMFs. My brain waves can be measured as electrical signals.

So we have to recognize that there are EMFs that are endogenous, natural. And then there's the nonnative ones, the nonnatural ones, the ones that we have created. And so EMFs, electromagnetic frequencies, are light whether we can see them or not.

If we were to pull up a graph showing the electromagnetic spectrum, you have cosmic radiation. You have X rays. You've got the visible spectrum of light that we actually see with our eyes. That makes up less than 1% of the total EMFs that we could have present.

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And so at one end of those EMFs, you'll see things like WiFi radiation, you'll see cell phone radiation. You'll see even electric power lines and things like that. And so I tell people that what you can control, you have to unplug the EMFs in your house. Unplug your WiFi router. Turn off your cell phone, or put it on airplane mode. Or put it out of your bedroom. Turn it on nice and loud, but put the cell phone physically out of your bedroom.

Because those EMFs are light that my eyes can't see, but my mitochondria know that they are there. They can sense it. And so if my mitochondria are like, oh, there's light still, they're not going to be able to run those repair programs as best as possible.

And in fact, those EMFs can open these voltage-gated calcium channels, these little channels on the cell membrane, and flood calcium in, which can be a danger signal. So we're wanting to repair when we sleep, right? We're wanting to go through this deep restorative healing. But if my mitochondria are sensing danger, the cell danger response, that's not going to happen.

Alex Howard

I'm tempted to go down a rabbit hole here if we've got some time. You mentioned this danger response, which is a pet favorite subject of mine. Because I think that that's also an interesting piece in terms of the context of mitochondria we're talking about here that, going back to my point a little bit earlier, often people think about mitochondria, they're making energy.

But the point you've just spoken to is that that danger signaling actually has more impacts than, of course, sleep is an impact, but has a lot more impacts than that. And I don't know if you want to just go down a bit of a rabbit hole just to explore just how impactful that can be in other ways in our system as well.

Carrie Bennett

Yeah. I mean, that cell danger response triggers so much. But in terms of mitochondrial impact especially, calcium in entering the cell, it's called a second messenger. The cells pulse calcium in to trigger a cascade, to trigger a pathway of some sort, and it's in these little pulses.

But when you get this flood of calcium into the cell, the cell is like, holy cow, what am I doing with all this? And so the cell needs inside of it, it runs on a negative charge. That's not controversial. It's like if you were to measure the charge, the voltage of the inside of a cell, it needs a negative charge. Calcium is a plus two cation. It's a positively charged molecule, or ion.

And so as it comes in, you're destroying the negative charge of the cell. And so the mitochondria are like, we can't have that happen. And a lot of the other organelles that live inside of the cell also are like, whoa, what's going on? We're losing our negative charge.

So they literally stop their natural performance, their normal function, and they go and they start to try to sequester this calcium. And as they're trying to sequester this calcium, the mitochondria, they're less able to flow these electrons to make ATP, to make water. Those are the two out of the three key things that they make, they're not able to make those.

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And so they start to release what are called reactive oxygen species, which we know is synonymous with inflammation. And so you get what I call mitochondria and they actually do a little bit of this reactive oxygen species, which are technically bio photons. It's like little fireworks, right? They do this just to say, yeah, we're flowing energy, we're flowing energy.

But when you have this cell danger response and you're not flowing electrons, you're losing these electrons. It's like the end of a fireworks finale, right? Like boom, boom, boom, boom, boom, boom, boom. All of these massive fireworks going off, which then trips the immune system. And the immune system says, wow, what's going on there? There's like a massive five alarm fire.

And so then you get the immune system to come in and try to dump immune support there, and it just triggers this whole cascading effect that ultimately ends in chronic inflammation, mitochondrial dysfunction, and then depending on what the person is also exposed to, it can lead to issues with chronic mold, chronic lyme, you name it. Other heavy metal toxins can do the same thing. And so, yeah, that was my rabbit hole.

Alex Howard

Just to follow the rabbit hole for a moment longer. One of the ways that I often think about cell danger response is that people can get very fixated on what's causing someone to be ill. And you mentioned, for example, things like mold or lyme co-infections or whatever it may be, but it's also, what is inhibiting the body's ability to heal?

And when we're in this response, the impact is our capacity to respond effectively and heal is impaired. And I'm thinking particularly in the context of sleep here, because of course there's sleep as a standalone issue. But there's then also sleep as a symptom of other complex, chronic or complex health conditions that may well have these elements happening at their core either as causation or inhibiting that capacity to heal.

Carrie Bennett

Yeah, you're exactly right. And so the cells want to be able to heal everything during sleep and typically during sleep when we have this cell danger response going on and then we're also exposed to nonnative EMFs and we've lowered our melatonin, it's like having a house that's literally like a hoarder house. And you're only picking up maybe two cans of soup and putting them away.

You're not going to make any healing progress because there's way too much to take care of and you're still dumping trash into it. And so sleep is essential for healing it. But you also have to recognize that, I've worked with enough people with lyme and mold that some people, it's fascinating to hear their stories where it's like, my spouse isn't affected or so and so got bit by a tick that had borrelia and they weren't affected.

And it has to do a lot with their capacity to clear and heal that at night, which is a result of their mitochondrial health. It's their melatonin production. Are they surrounded by these nonnative EMFs that are potentially dumping more fuel to the fire?

And so it's a whole important part of the process that I like people to address before I say, oh, yeah, now let's throw this antibiotic at it, or antimicrobial, or let's bind, bind, bind, bind, bind, which isn't a bad thing, but you also have to take a look at it from this broader perspective as well.

[00:27:59] Alex Howard

And what I think is really interesting about the way you've been connecting the dots here as well is that getting that morning light exposure is not just, I'm going to get some sunlight in the morning because it will help me sleep better. In a sense, there's a whole cascade of impacts that can happen from that.

Carrie Bennett

Yeah, you're absolutely right. So the whole cascade is, it has to do with that morning UVA window, especially. And let's define that. 10 degrees above the horizon to 30 degrees when that's in, and I think it's helpful, I track it with an app called the circadian app. It's tied to your location and obviously it will vary throughout the year.

And so I just click on my circadian app and I know when sunrises, when UVA light comes, when UVB comes. And so that UVA light, I really tell people it's a key window to time some outdoor exposure. 20 minutes if you can. A walk. A phone call, just hanging out.

Because besides making that serotonin, you're making thyroid hormone with it. Actually, you're starting to convert it to active thyroid hormone. You are producing something called neuromelanin, or melanin, which we think of it as a skin pigmentation, which it is, but we also have melanin all throughout our bodies.

And melanin is another way that we actually absorb light and convert it into energy. So we're like these big old batteries that are soaking in this energy and converting it to electricity in our bodies.

And so that morning window of time is really, really key because you trigger so many pathways that support the healing process. It sets you up for a successful, productive, focused, energized day. But then, like everything is a cycle in the body, those things ultimately convert to other things at night that help us with the repair process while we're sleeping.

Alex Howard

The human body is fascinating. You do a pretty good job of explaining how it works.

Let's talk about some of the summary, practical things that people can do. So there's quite a lot here, but actually, I think there's already some obvious things that jump out. But do you want to summarize for someone that's watching this or listening to this, where can they start?

Carrie Bennett

I say start with increasing your exposure to natural light with naked eyes. The glass will block some light frequencies and modify it for us. Glasses will. Contacts will. I know it's not easy for everyone, but the more naked eye sunlight you can get in the morning, the better off you're going to get these effects, the quicker you're going to get these effects.

So if you can stand outside and skygaze, beautiful, but it's literally saying, okay, when I'm going from point A to point B in the morning in my car, how can I do that? At school drop off, how can I do it? So I will open my sunroof after I drop the kids off and park in the parking lot and, glasses up, sky gaze. I'll gaze at the sky for two minutes.

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Same thing as I'm driving. Windows are down. Sometimes I'll have my glasses on. Sometimes contacts. It's like, how can I quickly glance and skygaze? So accumulate morning light to the best of your ability. Eyes are the most important. Skin is secondary. It is important, but it's secondary. So getting sunlight eyes is what I call it. Sunrise and sunlight eyes.

Then, look and see what's happening at the other end of the day. How am I potentially modifying my light environment at night to mess up the signaling that I just got during the morning? And so then in the evening, I really highly encourage blue blocking glasses.

The orange tone blue blocking glasses. It's a great place to start to at least protect part of the circadian rhythm to decrease exposure to that artificial blue light, which tanks melatonin. So putting these on as the sun dims, sunset, give or take, and then allowing your house to naturally dim as well.

Even if you don't do what I've done, which is basically change all my light bulbs and all that stuff, just dim the house, turn lights off, use the table lights like I suggested earlier, and then allow the process just to happen over time.

Over time, you'll start to see shifts and, wow, I have more energy in the morning. Wow, I've got less pain. Right? There's a whole anti-inflammatory cascade that gets triggered in the morning as well with that UVA light. So it's like, I have less pain, I've got more energy, I feel better.

And then at night, wow I'm getting tired earlier. So honor that fatigue, because that's a tricky one for some people. It's like, well, I want to stay up to watch the end of this show. It's like, I get that, but your body signaling sleep is indicating, now is the time to start repair. So honor your fatigue.

It will shift during the summertime versus the winter. Honor your fatigue. Go to bed because your body is saying, this is the time when I'm going to start to release all of these repair hormones to take care of your body and heal it while you're asleep.

Alex Howard

I was very proud of myself the other night. I stopped watching a TV series ten minutes before the end because I was like, well, I was probably going to fall asleep anyway, but it was that thing of my body saying it needs rest.

But that I think, sometimes is hard to do. And I imagine that there are clients that you work with that you say this early on in the work and they're probably more enthusiastic about taking supplements or doing other things.

I'm curious as to, for people that struggle with making changes like this, what have you found helps get them over that line, helps them to commit to the change?

Carrie Bennett

I ask them which part sounds the most doable? Is it rolling your windows down? Is it going for a walk in the morning? Is it wearing the blue blockers? Just commit to one of them. Just try one of them. My track record is still good on this, Alex. I have not had one client who has committed to this morning sunlight and blocking artificial light and has said, it's not for me. It's really not doing much.

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So you start to layer it on little by little, and then all of a sudden a threshold is reached where they're just like, why haven't I been taught this before? How did I not know about this? I've been going through this disease process for ten years.

And so I'm not saying it's the panacea. I mean, there's obviously nutrition and movement and there are support supplements, but these, I think, are foundational. And once we lay this foundation, all of the other things work so much better. And so it does create a cascading effect.

Alex Howard

I guess also the very act of going outside to get morning sunlight is also going to come with other things because you're more likely to, be that go for a walk or be outside, you're more likely to get fresh air. You're more likely to then not be starting the day by going straight into a work routine or whatever. So there's, I guess, other benefits that can also go alongside this.

Carrie Bennett

Yeah, you're absolutely right. So being in nature, especially, if we can maybe step into a backyard or here, I've got a little green space in the backyard, tiny little backyard, but I put my bare feet to the earth whenever I can. And you suck up electrons. That's the energy currency of the body.

So that's that earthing effect where we suck up the electrons and earthing in just a short amount of time, 2 seconds, it balances the autonomic nervous system. Within a couple of minutes, you get better blood flow. You deliver these electrons where they need to go.

So you're absolutely right. Just being outside and potentially touching the earth with bare skin, even if you can't. If I'm in public, I'll pretend like I'm tying my shoe on grass and I'll put my hands to the earth, because I know the instantaneous effect of it.

But you're exactly right. You get massive benefits from being outside, both mental, emotional, brings us joy. There's something deep in us where we're like, wow, this is way better than being under fluorescent light. I love this. So there is that mental aspect as well, beyond all these other things that we've talked about.

Alex Howard

Fantastic. I love how simple it is, but also how you've really given the science to support it. Carrie, for people that want to find out more about you and more about your work, what's the best place to go and what's some of what people can find?

Carrie Bennett

The place where I'm the most active is on Instagram, @carriebwellness. I post pretty much every single day about this, encouraging people. And it has a lot of the science, too. I try to make the science approachable and not intimidating.

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But I do find that because these things are free and easy, people need the science to be like, oh, yeah, there is something to that. And so I try to post every single day there. There, you'll see, I typically have a whole host of online workshops and webinars surrounding these various topics.

I've got some of them pre recorded that people can purchase if they're interested to jump right in. Healing with light, healing mitochondria, all of those things. And so that's the best place to start and then go from there.

Alex Howard

Carrie, I really appreciate your time. Thank you so much.

Carrie Bennett

Thank you, Alex. It's been a pleasure.