Morning Light and Circadian Rhythms

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and let your natural light go through your eyes, into your skin, and it will tell your body clock the correct signals. And you'll feel amazing just a few days of doing that.

You know, you could even replace caffeine in the morning. It's that powerful. This is Dr. Talks. Well, Andy, what a pleasure to see you again. We were both trying to work out, I think it was a good two, three years ago when we last chatted and so much has happened in your life since then.

You were giving me a little bit of behind the scenes information and I'm very excited to have you on these Doctor's Talk to help people with mental health and anxiety and depression and understanding more natural ways and other ways of helping people to manage their mental heath.

So welcome back, great to you see again and please tell my audience a bit about yourself. Yeah, of course, always a pleasure to speak with you, Caroline.

And yeah, it's been a while, but you know, we've been in touch sort of via email. It's fantastic. But yeah. I guess my background is I'm British. In Australia, I moved to Australia about 12 years ago because I was fed up of never seeing the sun in the United Kingdom.

Lots here in hell, which is great. Yeah. And yeah, my journey began with light, really moving to Australia. But in terms of trying to help other people, it was about six, six to seven years ago, I got in a real sort of bad way with my weight and my health.

I was down, depressed, anxious, overweight, and really not in good space. So Conventional dieting didn't help me, went on a low carb diet, lost a lot of weight, but I did that through my own learning.

So what that prompted me to do after I'd lost the weight started to feel a bit better as I went into this optimization phase where I was like, well, what more can I optimize in my life?

And the biggest thing that I was lacking was my sleep. And I kept reading, you know, sleep is all about like the cornerstones, longevity to health helps with, sort of metabolism helps, with mental health, physical health.

So I started looking into the components of sleep and how I could improve the quality of my asleep and the quantity of asleep. Can I interrupt you for a second there?

I'm sure when you did some of that reading, that made you terrified as well, because I mean, there's just so much almost negative stuff about sleep and that's, you know, we've got to know about it, but we got a balance, the negative with the positive, realizing that if you're terrified of sleep or thinking, I've gotta do all these things, That's actually worse for you than not sleeping.

It'll just make you not sleep.

Andyu2019s Background and Sleep Optimization Journey

So I didn't want to interrupt there. I just wanted to, cause I think we had mentioned that before in our previous interview was that luckily it's scary, this stuff out there on sleep, and we kind of have to calm down a little.

Yeah, absolutely. And the good thing is it's an easy fix, right? You're not talking life-changing protocols to fix it. You are talking a few little **** here and there, which we'll talk about later.

But yeah, I think there's some sort of condition, like orthophobia or something like that, where it is these sleep trackers people are wearing that they get so obsessed with them.

They actually are waking up in the night looking at it and making sure they're sleeping. counterintuitive to what they're trying to do. But yeah, no, you've got to be positive with these things.

And, that led me to find that light and how that impacted sleep early. That's how my company Bonchard was born. It was a bid to educate people on how to improve their sleep using light as one of the mechanisms.

Then we invented another product to help with that. based on what the academic literature at the time was saying. Things like blue light glasses, sleep-friendly light bulbs, red light therapy, and things like that.

Amazing. Since I last saw you, you've developed so many new products and towards the end, I'd love you to tell the listeners and viewers about that. But I would love to start with, like you were saying, life can impact sleep.

We all know that and I know one of the routines that is part of my life and that I tell my patients and things is first thing in the morning, just wherever you are, even if it's grayed overcast outside, stick your head out and make sure you get light in your eyes as soon as possible.

We know that it's so important and there's all the photons and light without getting too sciency. Could you just dive into the importance of light, the impact on sleep, stress, anxiety and depression?

Yeah, absolutely. So we have body clocks, right? Circadian rhythms is the technical word for it. And they're governed by light. They're ancient. We had these millions of years ago as we were evolving and they were all triggered by the rising of the sun and the setting of sun being out.

side during the day. That helps us regulate our hormones correctly throughout the days, so serotonin, dopamine, cortisol, it regulates them in perfect harmony.

The issue we've got now is we got artificial light, which we didn't have when we were ancestrally evolved, or even up to like 150 years ago, we did not have this in our lives, NED light bulbs.

And they're very different to how the sun's light changes throughout the day. So we're constantly fed the same frequencies of light at any time during the date.

That's tricking our body box into thinking that it's daytime all the time, even if we are sat having dinner in the evening under light, it works. Opening off a bridge, lights coming out at us, our overhead lighting in offices, and as you watch the TV or scroll your phone, that light is continually sending signals to our body clock saying, it's daytime, stay awake.

Now, the issue with that is, yeah, you can stay up late watching your favorite TV shows or socializing, which is great, but it has a negative impact on our hormones, specifically cortisol.

Now, we've seen from various studies out there in the literature that it can disrupt the cortisol cycle. So cortisol is a good and a bad thing, right?

It's really good. In the mornings, jump starts to get you out of bed and keeps you active during the day. Cortisol awakening response is so important and that's triggered by the blue light in mornings and our circadian rhythms being entrained by that light.

If that happens continually at the wrong times of the day, we get a dysregulation of our cortisol where cortisol can, two things can happen right. The first thing is the cortisol cycle could flip, which means that you struggle to get up in the morning and you feel really down and depressed in morning, struggle get yourself motivated.

But then you sit down in evening and your cortisol levels are high, you can't sleep, your happy to stay up late and that's really bad for your sleep and overall health.

The other issue that can occur is that cortisol can become chronically elevated, which means that when you're in this sort of fight-and-flight sort-of situation all the time, you can then become really depressed, or you become anxious, so you could become, really, sort, of hyper-aware of things and stressed.

How Artificial Light Disrupts Hormones and Sleep

Part of that is down to being under the wrong light at the right time of the day, and we need to take steps to be outside more. in the natural light, but also managing the artificial light because I don't want to scare anyone else.

You've got to live outside and you can't watch TV and can put on your lights. That's why our company is so realistic. Yeah, exactly. And that's where Born Charge was born is to let people enjoy these modern conveniences and luxuries, without disrupting their hormones through mismanagement of artificial lights, Okay, well, that's fantastic.

So can you tell us what people, while we're on that live thing, what are some of the things that people can do now immediately today as they leave this interview?

And then we can talk at the end about your products and things, but what could they do right now? Yeah, that's a great question because there's so many free things people can do to optimize their night hygiene.

So the first thing, best thing you can, do is what you mentioned Caroline, which is going outside and making sure that your eyes are exposed to natural light before any other light.

Okay. It doesn't matter if it's cloudy outside, rainy, get outside. Not a window because that changes the frequencies of light physically outside just for a few minutes and let your Let a natural light go through your eyes, into your skin and it will tell your body clock the correct signals and you'll feel amazing.

Just a few days of doing that, you know, it could even replace caffeine in the morning. It's that powerful. So that's really good. The other things you can do is during the day, if you're working in office or you are working inside or even if it's just home at the weekend, try and get outside a view times during that day.

You know you could just go out for what I like to call sun breaks where Just for a few minutes, you go outside, get the sunlight back through your eyes again for few a minutes.

I'm not talking about staring at the sun, just being outside in the light. And I think that that then allows the body to check in and go, okay, well it's this time of the day now.

These hormones need to be suppressed, these hormones needs to released and we just get this optimal hormonal balance. You could even go, if you want to go even further, you can watch the sun set as well.

I know it's not always practical, probably the least important out of the three things I've mentioned, but watching the Sun set, as that triggers cortisol levels to decline because you're getting more red light into your eyes, which is very relaxing and soothing.

And it then triggers a response to the central clock system to say, okay, well night time's approaching now, let's drop down the cortisol. Increased melatonin, which helps you feel relaxed and at ease and chilled, ready to sleep.

So those three things are great for doing. You can also do things like when you're on your laptop or your MacBook

or whatever it may be, there's a little setting in the settings section, Which allows you to reduce the blue light levels.

Yes, great. Isn't it? You just pull that down a bit so you can blast the light into your eyes. If you have like a soul lamp or something like that, you can have that next to your computer, which helps balance the blue light.

Light's all about balance, right? The sun is very balanced in all the different colors. Think of the rainbow. Whereas your laptop computer is all blue and green and only a little bit of a beneficial red light, get like nice soul lamps, stick that to the computer and you'll feel really relaxed.

whilst going about your day as well. And just having each general breakthrough series, right? Like so many people on their phones all the time. Like let's be mindful.

Let's just sit somewhere, maybe outside, may be gather your thoughts. Don't always have to be doing something like being on your phone because that's…

overstimulation as well as so much more artificial blue light coming into your body as wells. And the final fact as wow is people are on their phones along, you know, that's hard to change sometimes.

Yeah, and you put your phone on night shift mode during the day, which reduces the bluelight down. So you're just getting less sources of artificial bluelight that sort of around you during day and also in the evening aswell.

three easy things to do that will just change your life in terms of better sleep and better circadian health. That's fantastic. Well, that's really helpful and useful.

You're not saying that phones and things are bad. What you're trying to say is that there's a balance. To be exposed to one too much blue light is too, much of anything is a problem.

So it's to get balanced. It's always about balance, so those are really great tips. Thank you so much. Andy, let's talk about red light. Before we do that, there's something that you commented on, the sun lifts the mood while blue light promotes feelings of anxiety.

Can you talk that in terms of, because you mentioned about the sunset that can calm you down and sunrise in the morning and those kinds of things and being in this sun, we all know that lifts our mood.

I mean, you just have to look at a sunset and there is just that sense. It's like in me, it's hard not to to at sunset or sunrise and think, wow. But then you said talking about how blue can promote feelings anxiety, that's not all blue It's not little bits of it, it's quantity.

So can you talk a little bit about that and just in terms of the balancing again? Because I think people sometimes, there's so much emphasis on this, really not so bad for you.

Nothing's bad you in the right quantities. Yeah, 100%. And that's the thing. I don't want to demonize blue light. Blue light is fantastic during the day.

The sky is blue. Think of the feelings you get on a lovely sunny day, the sky's blue, it's incredible feelings.

Simple Daily Light Habits for Better Health

And blue is important during a day from natural sources. It allows you to keep your weight, it allows dopamine and serotonin to be produced in the body.

It pulls up cortisol in morning, which is super important to have. Cortisol is not a bad thing. Now the issue we've got is we're exposed to blue light just continually.

Yeah, and then into the evening, right? But it's also, if you get blue light at the wrong times of the day, it simulates

the right hormones. So like I said at actually the end of last question on the free sort of biohacks you can do with watching the sunset and the sunrise is that that's all red light and that is very soothing, relaxing, calming.

when you go into the evening, the body isn't used to blue light. Think of our ancestors, right? Think about them, red, orange light, they're relaxed, chatting, conversing, then they go to bed.

There's no blue-light present. there's not sun in the sky. You've got the moon and the stars, but the intensity of that blue is minimal. It doesn't impact daily rhythms.

What we're doing is we are going After the dark, after sunset, when we should be exposed to red light, we're putting on our house lights, looking at our phone, watching the TV, opening the fridge, on the laptops.

That blue light is telling our body to release more cortisol, which is then causing us to be stressed more and more or to have the wrong hormone at the right time of the day.

Cortisol is an energetic hormone that keeps us alert and awake and alive during the days. And focus, yeah, absolutely great point. But then in the evening, we don't want to be really sort of energetic focus.

We want be relaxed and sort dozy and chilled and relaxed. And the blue light isn't allowing us to do that. So we're continually exposed to cortisol. which just over time can lead to, you know, feeling a bit low, it can then lead stress, can lend lead anxiety and it just might get worse in certain individuals.

Blue light during the day is great. You keep your alert and awake, but the problem is balance, right? The sunlight is completely balanced. We have blue, green, yellow, orange, red light.

The whole spectrum of light and blue light is bright during day from the sun. It causes, like I said, cortisol, dopamine, serotonin production. the issues with blue-light during a day, even from sun, is it causes cellular damage.

What the sun has in it is a lot of red light, and that cellular damage is instantly repaired because it has soothing healing frequencies of read light in there.

The issue we have with artificial sources, blue light is very high, red like very low. So we get all the benefits of the light that we do from sunlight from our computers during the day, but we're getting none of that repair happening.

We might age faster being in front of a computer, we might have more cellular damaged, which can lead to other, you know, unpleasant health issues moving through life.

So it's all about balance. The blue light, like I said, is context. It's blue at the time of the day, the amount of blue lights, but also how balanced that spectrum of light is in terms of whether it can be classed as, well, that's unhealthy blue or that healthy blue.

I love that. I really like how you explained that, and I think that was important for people to just get that perspective as well. And a lot of people may already have an idea of this, but it's really, you explain that so well, so thank you.

So let's transition over to why infrared saunas, especially the red light ones, I have this infrared sauna, fortunate to have one at home and I sauna every day and always put my red light on.

I've got all the different kind of lights, but red is my favorite. And I know that you can buy all those great masks that can put on your face for the red like for your skin and all these.

So let's talk a little bit about red lights and saunas and how that could help us. You've already mentioned a bit of the sunsets and so on, so if you could talk about it in terms of sawnas, and maybe in those masks people put for their skin, that kind Yeah, absolutely.

I'll start with the saunas. So we're talking here about far infrared lights. There's far-infrared and near-infra-red. People are confused about what they're used for.

Far infrared light is what's found in infrared sawnas and infrared sauna blankets. It's an invisible frequency of light and it's used to heating purposes.

directly, rather than a traditional sauna, which uses coals or something like that which heats the air around you.

Blue Light, Anxiety, and the Balance of Sunlight

So it's more effective to use infrared lights for heating because it can penetrate deeper into the skin, it allows the environment around, you not to be really hot.

so you know, your head can get really hard, things like, that it targets the body and it deepens the muscle. It can help you with muscle recovery. it can help you with detoxification.

So it helps you sweat more to allow you to get rid of some of the impurities that you might have absorbed during the day, just from everyday life. Just from being outside, you can get pollutants and things in.

Some sort of preliminary studies are showing that actually it sort boosts endorphins. People are sort saying this thing like post-sauna high, right? So they have this sauna, this bread sauna and they come out and feel absolutely like euphoric and great and relaxed and it really boosts their moods.

And it's just how powerful light can be, like in different frequencies and each frequency of light has its own benefit, far infrared light. whilst heating you over a certain period of time can help you feel very euphoric and happy after you've had it.

So it's always great to use when you're feeling a bit down or even just as a general part of your wellness routine. It's also fantastic to sleep because it really relaxes you, it sort of reduces those cortisol levels down, makes you relax and chilled and it is great before bed.

Big thing at the moment that's trending is ice baths. But if you did an ice path just before bed, you're going to be all wired and won't sleep. Perfect.

Morning get you awake. Now, red light therapy is different from infrared sauna. So that uses visible red lights and it uses near infrared lights. Red light and near-infrared lights, specifically at 660, 630 nanometers and also at 50 nanometer, people don't need to worry too much about the technical aspect of that.

They're just very powerful frequencies of light. Now, those frequencies of light have been shown in various peer-reviewed studies, quite a few of the gold standard double-blind placebos to help boost energy production at a cellular level.

Now what that does in basic terms is it helps repair and restore certain inefficiencies at the cellular levels. So for instance, you have a red light face mask that people would have seen.

It would look like Hannibal Lecter wearing those. really trending at the moment because they boost collagen in the skin at a cellular level. They do that by boosting fibroblast production which can then lead to then the collagen elastin production.

On another level you have the near-infrared light which penetrates deep into the muscles and bones which helps you recover faster, helps if you've got stiff aching joints.

It's also been shown red light to be smooth as well. So it doesn't like getting paper. It relaxes you, it soothes you. Very similar to the sauna, but it does so more at that sort of cellular level.

Where it helps you relax, unwind. Is great to do in the evening. And you've got a third. sort of red light that you can use as well, which is lighting.

So you could actually change the light bulbs in your house to admit only red line in the evening, which mimics the campfire, and which can help you relax aswell.

The reason people are doing that right now is there's been one study that came out in 2018 that showed that blue light can impact the skin regardless if you're wearing blue like glasses.

people are starting to change their light bulbs out or use laments or red light, motion sensor night lights, things like that, because the red lights has been showing not to impact melatonin production, which then could damage your sleep.

So there's sort of three ways you can do it. Blurring red light in saunas, it's great, makes you feel amazing. Red light therapy, near infrared and red lights at a therapeutic level, which can help you to feel relaxed and amazing, but also help boost cellular repair.

And then you've got red lighting, like light bulbs and light, that can be used around you, to stop the blue light from hitting your skin and disrupting your sleep and hormones in the evenings.

That's fantastic.

Red Light Therapy and Infrared Sauna Benefits

Thank you for explaining that so well, so easily. So like my sauna, as I said, it's infrared, but it has also got the red light therapy in it. It's great.

I can get two in one, which is really, you really feel amazing and it really makes a difference with your skin and you do your mood and everything. That is great and also I found if I use it like a certain amount of time in the morning, I'm very energetic, but if I use it for too long, I get sleepy.

So that's why it's slightly longer in the evening or something like that. Just to show that we can take those natural things and we use them. If you don't have a sauna, those masks are available.

It's not doing what a saunas doing, you can get sauna blankets. You get fairly inexpensive sawnas that you actually can lie on the floor and climb into them and whatever.

What can we do if we feel conventional medicine is not meeting our needs? So this is a bit of a jump to a different side of things. How would you approach that?

Yeah, absolutely. And it's a really, really good question. The reason that's really a good questions is, a lot of people turn to the wrong people then, if the conventional medicine isn't helping them.

There's lot a people out there that will focus on one thing, right? Say for instance, someone says, you have to eat this diet to feel amazing and to get healthy.

That could be vegan, paleo, keto, carnival, whatever. The worst thing you can do, you've got to go to someone that's really looking at both sides of the spectrum, both the sides.

Well, this study is saying one thing, the study saying the other, let's find where we can sort of have those discussions and find out what can work for people on an individual level.

I think you do it really well, Carolyn, because you talk about lots of different protocols that people can use. Whereas going, You need to do this, and away you go.

Now, it's kind of philosophy we have as well. We know that light is one pillar of health. A lot of people would sit here and go, right, light's the cause of anxiety and depression, don't need to do anything else.

Big mistake, massive mistake. One tiny pill that can, you know, might cause it or might intensify it, or it might have no impact for some. You just got to look at all the different protocols.

you've got think, well, how can this work for me? Listen to your body. How am I feeling? If I try something, that a vegan is saying, eat a Vegan diet and you're eating it and feeling terrible, that's not for you.

And that is not a mistake. You're trying different things, you are experimenting on yourself, trying to optimize yourself and just got to try different thing to find what's right for, not what someone is telling you is right to you and I think that probably the bit of advice I would give people.

That's really great. Now that's such, I totally agree with you 100%. What are some other lifestyle choices we can make to improve our mental and physical health?

Because if you think of it, you've just said, these lights one pillar and the saunas one-pillar and infrared, the infrared mask or another pillar, all of these things are adding up and you also can't do everything.

I mean, a whole biohacking movement is fantastic. And I know you're very excited about it. We all are, but you can, as you already gave the example, sleep tracking, it's counterproductive if you're waking up to check your sleeping, or it can make you very stressed out.

I mean, I've had people saying this to me recently at various different conferences saying, gosh, every tracking device out there, and it just made me a basket case because it is just tracking everything.

And that's also not good. So we're not telling everyone to do everything. It's to get a nice broad knowledge base and then work out what works for you.

So in terms of lifestyle advice, as our last question, how would you advise people to include Elighton and Soros and just generally, you know, How would get balanced approach, lifestyle choices and what other lifestyle options would recommend on top of what you've already recommended?

Yeah, absolutely. Great question. It's a spectrum, right? Biohacking and anything in health, you've got a real extreme deep one end and you got people that know nothing at the other end.

Anywhere along there is fine to be. What you don't want to do is go, I'm going to go and buy 20 grand worth of biohack tech from day one. having, you know, listening to someone talk about this stuff, because you're setting yourself up to fail.

It's all about small habits, it's about starting with the freestyle. Get outside more, get out into the light more. And you then may go, oh my goodness, I feel amazing doing that.

Maybe I'm going to look at managing my light hygiene in the evening. maybe I'll have a couple of soul lamps, maybe try some blue light blocking glasses.

You might start to feel great after that and say, know, that's enough for me, I'm fine. But some people then they go, no, i'm going to go one step further.

I love in this. So I am going try sauna blanks. i am gonna try red light therapy and it's so much from there. And no matter where you are on the spectrum of biohacking, it is totally fine, everyone's on their own journeys.

Some are more far along than others, but there's no shame in being anywhere on there and there is no shade in stopping anywhere out there, you know. I'm probably sort of a nine out of 10 on that.

My wife's probably a six out 10, on the spectrum because it works for her to stop at that point. She doesn't need to do those other things.

Personalized Biohacking and Born Charge Products

So really, again, go back to listening to yourself and what is good for you because otherwise, You know, it's all about anything in health, anything, in love.

Number one, for me, is adherence to it, right? You can go on any diet world, but it is adhereence. What's going to work for you and what are you going stick with to make your life healthier and more fulfilling?

And I think that's where you've got to position it. I thinks it as simple as that. I love it. I totally agree. 100%. Thank you. Andy, tell us first of all, what are some of the other products that you have that can help people in this search for their lifestyle changes?

And I know that your not trying to tell them to get everything, but let them know what you've got available and then where can they get hold of you and where they can learn from you?

Absolutely. Yeah. I mean, we offer the full suite of biohacking products. They've all been tested. There are all doing what they say they're doing, which is important because there's a lot of not so good ones on Amazon out there.

Yeah, you gotta be very careful, but if people are just listening to audio of this, that's fine. But I did have a couple here just to show I'm wearing these glasses.

Yeah. These are my life sensitivity glasses, so then like boosting glasses they have during the winter months for me, because winter here in Australia, they make everything really yellow and bright and make me happy.

So I love to wear these. I've got a family history of seasonal affective disorder, So, I am really staunched by a hacker in the winters. Yeah. So then we got these glasses here.

These are blue light blocking glasses. Now, as I said earlier in the evenings, you want to block blue lights because if you don't, You're going to potentially not sleep as well.

And I'm still really wired. so these helps reduce cortisol and increase your manitone production. and these are cool. these so good. They are motion sensor night lights.

I have them positioned around the house. As I am walking throughout the night, they come on and they admit, Oh, lovely. Yeah, it's so nice, so soothing.

And I got a lot on just the show finally, which is red light therapy. Oh wonderful, beautiful. The little baby panel that we have that you know, you can just pop it on your desk and just have it in your face.

So good. Yes, sometimes I have just here like next to my computer. Double app has helped me balance the light, but also helped with skin health, helped boost your mood, feel relaxed.

That's fantastic. So people can find us at bondcharge.com. It's actually B-O-N and then charge as in, yeah, the word charge. Bondcharge dot com. And yeah.

We've got amazing people in our customer support team as well. If you have any questions, it can be overwhelming going on a website. As far as the question, yeah, just say like, this is my situation, say that they heard the conversation that we've been having, and can they provide some advice on what products they should start with?

And, you know, everyone's trained there by themselves, they all know what these products do. And they can say, well, based on you described and your lifestyle, maybe try the blue light glasses, Maybe try that the nightlight to

start it and then they go from there.

But yeah they're not alone. We're here to help, we're education first. Got some cool blogs on the website and an amazing support team to be able to help personalize a product for anyone that needs that help.

Thank you so much, Andy. That's amazing. Well, thank you for your help and thank for the work that you're doing and making all these things and just giving us a really balanced approach to a field that is an area that's exciting but has got a little bit overboard sometimes, the biohacking movement.

So thankyou for bringing that nice balance back to that and thanks for joining us today. You're most welcome. Thank you so much for having me on and it's been a pleasure to speak about light today.

Fantastic. Always good seeing you. Thanks, Andy. Stay connected, stay healthy, and join us next time on Doctor Talks, real talks from real doctors on the issues that matter to you most.