THE MODEL HEALTH SHOW

EPISODE 990

Use These Biohacks to Heal Faster, Sleep Better & Upgrade Your Skin

With Guest Andy Mant

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SHAWN STEVENSON: Welcome to the Model Health Show. This is fitness and nutrition expert Shawn Stevenson, and I'm so grateful for you tuning in with me today. To say that I'm passionate about health and fitness is an understatement. I've been in this field for now almost 24 years, getting close to 25 years. That's a quarter century. That's crazy. And I did not know that this would be my path in life, and it was through my own struggles with my own health. And being able to find solutions is what prompted me to be a part of this incredible field at the age of just 20 years old, I was diagnosed with a incurable arthritic condition of my spine.

And I was relegated to live a life of rotating medications, chronic pain and debilitation. And I took on that diagnosis as my identity, and I felt as though there was nothing that I could do about it. And I was told by my trusted advisors, my trusted physicians, who meant well that this was incurable and there's nothing that I can do about it.

But thankfully, I had the audacity to believe that they did not have the final say about what was possible for me. And that sent me on a journey once I started to change the questions that I was asking, because my habitual question at the time was, why me? Why is this happening to me? Why won't anybody help me? And I was suffering alone in my raggedy one bedroom apartment in Ferguson, Missouri. And so I had all these things that seemed to be stacked against me, and it seemed as though I didn't even have access. But this is the power of the human spirit. And I began to ask different questions, what is it that I can do to feel better?

And I had different people in my life who had exposure to things that I began to be more open to. And before you know it, the right books showed up, the right conversations, the right friends and support systems to help me to find the solutions that I've been looking for. And today I'm very passionate about helping other people to, number one, get access to the information that can transform their life like that. And number two, and this is the most important, to ignite the awareness that there is nothing more powerful than your spirit. There's nothing more powerful than your ability to make change in your life.

If your heart is beating, you have the ability to get better. And so with all this being said, and about a quarter century in the health and fitness space and the success of the Model Health Show being the number one health podcast in the United States, and it's like the billboard charts, you know. It goes up and down, changes here or there, but we've spent many weeks as a number one health podcast in the United States all starting ferguson, Florissant, Missouri, where I live when this show got started, and I'm so grateful for that.

And with this emerging conversation about health and wellness, thank goodness things are changing, but we've got a long way to go and we need to maintain our ability to ask questions because of course they're going to be people who are trying to take advantage of this new dedicated focus. And so I've been reached out to by hundreds and hundreds at this point. And this is just what we have a spreadsheet for of different companies who are wanting to work with me. And I've been invited to the White House on numerous occasions as well to work on health related policy. And all the while I am making sure that I am really doing my homework and doing my best to make sure that I provide you with the most science-backed and most ethical products and people that I possibly can.

And so today's episode is very unique because it's taken several years for me to investigate this field, to be able to utilize some of these incredible things that you're about to learn about, literally years, to affirm their efficacy for myself and also to dig into the science and to see how compared to this pharmaceutical model, there are so many other science-backed solutions when it comes to pain, when it comes to improving our sleep quality.

When it comes to recovery from injuries, there are so many solutions that are simply not well known, but they are well established in peer reviewed evidence. And thankfully, with the persistence of today's special guest, I was able to actually just really focus on this technology, utilize them, and see the benefits in my life, the benefits with my family, my friends, my community.

And now we're seeing this with millions of people, literally millions of people taking advantage of these incredible technologies. And so today you're going to learn some of the science behind how light is being used as therapeutics, and also on the other end of the

spectrum, how light inputs can be dangerous and damaging to our health, and how to find that balance.

There are many quote biohacks that are finding a place of prominence today. But again, we wanna make sure that we're leaning into what really works, the accessibility, because if we're talking about a light input. Even when I lived in Ferguson, Missouri, I had the ability to get outside and get natural light exposure when I was suffering in pain and on all those medications, I can count on my ha, I could count on my hands how many times I was actually getting outside and spending time in the sun for years. And I could see it in those old pictures as well. I looked like Casper, the friendly ghost, but I was not friendly and let alone just, you know, the inflammation that you could see on my face and the pain that I was in that you could see in my face. And so we wanna provide more accessibility, more education, and start to engage in and find things that we can invest in.

Because even when I didn't have much on my extremely limited college budget, I was investing in myself and buying food from Whole Foods and going to farmer's markets to save money as well. Just to be able to like, and again, you don't have to go to Whole Foods, but just to put better information into my body. And that came back to me a thousand fold, a million fold, an infinite fold in better health by investing in myself. But again, at the time, I didn't know what I didn't know. So I'm on a mission to provide information, provide access, and I think that this episode is going to be incredibly enlightening for you to have these tools on hand when you need them.

And without further ado, let's dive in this conversation with our special guest and topic of the day. Andy Mant is a global leader in the wellness technology industry. As the co-founder of Boncharge, he's passionate about providing direct to consumer Red Light therapy, PEMF technology, circadian lighting, and other cutting edge wellness technology to support true longevity with a personal and professional journey, deeply rooted in performance optimization, mitochondrial health, and innovation. Andy brings easy to understand science-backed insights to biohacking your biology for better health. Let's dive in this conversation with the one and only, Andy. Matt, Andy. Thank you so much for coming to hang out with us.

ANDY MANT: Amazing. Thanks for having me, Shawn. I've been really excited for this one.

SHAWN STEVENSON: Yeah, me too. Me too. Well, most importantly, to kick things off, we've gotta talk about the impact that light has on our biology. You know, it's one of these things that it's really growing rapidly in the field of medicine and the field of health and beauty. But this is something that humans have evolved to be able to receive implements from, to receive inputs from when it comes to these different light inputs. So can you start off by talking about how light impacts our biology?

ANDY MANT: Yeah, absolutely. I think it's such a broad question, but a really good place to start because in order to understand how light impacts us at a biological level, both, both good and bad, we need to go back quite a few hundred thousand years to start with. So as humans, we all evolve with something called a circadian rhythm. And this happened many moons ago, you know, hundreds of thousands, millions of years ago. All mammals have them. And what this is it's a little clock and it's inside the center of our brain. And what that does is that tells our internal system, so how we act on a biological level, a cellular level, mitochondria level, what's happening in the outside environment.

Now how that clock became to be evolved was under natural light. I'll talk you through sort of a typical day of our ancestors. They would've risen with the rising sun. That sun would've hit their skin, their eyes, and it would've increased dopamine, serotonin, and cortisol, which made yourself alert and awake for during, doing stuff during the day. And those things would've been going outing, gathering, all that kind of stuff. Now, sunlight changes in its spectrum throughout the day and receiving light signals through the eyes, through the skin hitting. Our central clock system would tell our hormones to either suppress or secrete throughout the day.

Neurotransmitters would be turned on, turned off, dialed up, dialed down until they reached sunset. When the sun started to set blue light started to decrease more reds. Ambers came through as the sun set. Darkness would ensue and we would be sat around a campfire, orange red light getting into a parasympathetic state.

Cortisol levels would dial down. Melatonin would start to dial up. We'd sleep in almost complete darkness. Our cells would restore, repair. An autophagy, apoptosis would happen, and then we would wake in the morning with a rising sun and we'd start again. Now we've still got that same exact same circadian clock system in our brain that we had hundreds of thousands of years ago.

But what we've done as a human race is we thought to ourselves the. Nature doesn't really matter. We can decouple from nature, right? That's what we've been thinking, and it's always to our detriment when we start messing around with nature. So we've started to incorporate lots of artificial suns in our life. So these artificial suns are from lighting in your home, your office, your computer, your smartphone, even your fridge light and little LEDs on appliances when you're charging your phone or your camera or something like that. And our ancient circadian clock system is still in our brain. Can't tell the difference between that light and sunlight.

It still takes those cues and thinks that it's day daytime. Lemme give you an example. In our modern world, we come home after dark when historically our circadian rhythm is used to seeing these reds and ambers. And, you know, no blue or no green light or anything like that present, we're switching on our house lights and that's instantly sending a message to this ancient clock system that it's the middle of the day. So let's keep cortisol levels dialed up, impacting us at the biological level in terms of jacking up our stress, not allowing us to sleep well. And over time that can cause, you know, things like fatigue. It can lead to chronic stress, even sort of anxiety, things like that. And it symptoms that will show you've got a miss circadian rhythm and you're under the wrong light and you're not doing things correctly in line with your circadian rhythm, is your struggle falling asleep?

You'll have more energy in the evenings than you have in the mornings. Your wake up feeling sluggish and tired, and then that starts to impel lots of other things during the day as well. Like your glucose metabolism will shift, you won't, partition and process carbohydrates as well. And, you know, you'll have chronically high cortisol levels all the time, or they'll be reversed. So you're more jacked in the evening and sluggish in the morning. So yeah, in a nutshell, that's probably where I would say light is impacting us in a negative way. Yeah.

SHAWN STEVENSON: And you found this out the hard way yourself?

ANDY MANT: Unfortunately I did. Yeah. So my journey started around about 2014 and we were having a really interesting conversation before this, about about an electrolyte company elements. And it was actually those guys back in 2014, Lewis Phyllis and Rob Wolf, who I started to follow. And I started to follow them on forums. 'cause this was like before the Instagram days. This is like sort of early Instagram. And I was 30 pounds overweight. I was in a dire situation in my late twenties.

I was, I had kidney stones, I had my appendix out, I was constantly sick. And I found those two guys and discovered a ketogenic diet at the time. And what I liked about those two guys was. They were teaching people to question everything that we've been taught. And I was doing like low calorie exercise, more diet, and it just didn't work for me. I was getting sick and sick. I wasn't losing weight, you know, I'd lose a little bit then I'd put it back on. Keto worked really well for me for a few years, and it made me better. And then I got to the point where, because I'd learned to solve my own health issues through dietary intervention, I was like, I need to read more and solve some other bad stuff that's happening in my life, which was sleep.

I literally could get to sleep, I'd no issues with that, but I'd wake up feeling groggy. And my rem and deep sleep was so bad, like I just didn't dream. So I was like, this is odd. This is strange. So what I did was I went and got some blue light blocking glasses from Amazon. And I got four or five different pairs and I tried them and I had a, this was now going into about 2016, 17, and I had one of the early AA rings at the time, you know, those big ugly ones that were, when they just first started out so I could track my sleep. So I knew what was happening. And, you know, I was getting like 25 minutes of REM sleep a night, you know, it's real bad. Like 10, 15% of my whole sleep was REM and then a little bit more in, in deep. And you know, you wanna be 40, 50% in those stages. So I put the blue light glasses on and it increased my rem and deep sleep.

So I was really happy. They were these like sort of pale, amber tinted ones. And being the sort of science nerd that I am, I discovered from reading the literature, there was a very distinct

banding of blue and green light that impacted melatonin. It was almost like a bell curve, right?

So peak at sort of 480 nanometers, which is like standard sort of, well actually more like towards the end of the blue spectrum, then it sort of tapered off into the green section of light as well. And all this light I found was in everything like our appliances, our house lights, our cell phones. And I thought to myself, I wonder if these glasses I've got off Amazon. I wonder if they're blocking a hundred percent in line with that. Because I'm after optimal, I like biohacking, I want a hundred percent. If I'm getting 90%, that's not enough for me. So I took 'em to an optics lab in Australia and I said, do you mind just testing these for me and telling me what the light transmittance is on these glasses?

Lo and behold, no surprise, all of them came back blocking between about 50 and 90% of the bell curve of melatonin disrupting light. And I said to them, I said, would you make me a pair of glasses, a pair of lenses? I'll just give you these frames. I'll pop the lenses out and you guys pop, put some new lenses in. Look block a hundred percent within this banding. And they just looked at me like. Yeah, if you pay us a couple hundred dollars, we'll do it for you. I was like, okay, thanks. Let's do it. So I got this prototype pair, everything got tested. It was blocking a hundred percent of what it should be. I put them on and yeah, the sleep was noticeably good.

So I thought to myself, I thought, you know what? I need to share this with the world. If this, if I can solve my problems from this. Other people are wearing blue light glasses that are out there, and this was before like sort of blue light glasses were even cool, you know, they were just ugly things off Amazon that you'd buy. That obviously didn't work, and the efficacy was really bad. So created 10 pairs, so I didn't have much money at the time, so I created 10 pairs and I sent them to people within the sort of more the keto community that were already wearing blue light glasses. So Louis got a pair, Luke story got a pair, a few other sort of influencers that were like real elite bio hacking.

They were doing everything. And I just said to them, I said, guys, what I want you to do is wear these for a week. Compare them to your old pair. Here's the studies that I've read that I

think that what we're all wearing is not good. Not bashing any brands, that's not me. It's more just try these, and this is why.

And they all came back, like within about a month, they took longer to test and they just said, you've gotta launch a company. Like these are next level. Aura scores are much better than what we've got. Like, they're sensational. So that was how the company was born. *It* was born out of, you know, not ultimately inventing a product. Blue light glasses already existed. They just weren't performing in line with the science. And that's where we got to, but then we we discovered after a couple of years we were selling loads of these glasses. It was amazing.

They were super easy to sell because people believed in them and people were talking about them. And we sold a lot. We helped so many people with amazing sleep. We had one, one lady up in the Northern Territory, actually, which is a real sort of isolated state in in Australia. It's where like Crocodile Dundee would come from if he was from somewhere, but she had insomnia for 30 years and she wore these glasses and her son left a review saying like, she has literally slept for the first time in 30 years. He was so grateful. And that was when it really touched me that like, yeah we need to create more products to help people.

And I know I'm sort of rambling on a little bit here with this, but another study came out which changed the landscape in 2018, late 2018, early 2019. And it was a study that said that they were doing this. This sort of weight loss study and they looked at light and its impact on weight loss, and they saw that by shining sunlight onto the body, onto the skin, that there was a reaction that took place at 484 nanometers, which is specifically what triggers melanopsin to become activated.

Now, melanopsin is a blue light receptor, so 4 84 is dead within the blue light spectrum. Now, before that science had said that melanopsin is present only in the eye, so any kind of blue light impacted by the eye going through to the central clock system, the body clock to tell what time it is of the day, could be manipulated by wearing blue light blocking glasses. Now finding it in the skin cells basically meant that you can wear blue light blocking glasses in the evening, but you're not gonna be a hundred percent optimal 'cause if you've got your house lights on or your TV on, the cells in your skin are also going to interpret and pass messages.

'cause every skin cell in the body, every cell in the body has its own little peripheral clock system that talks to the master conductor.

So we were like, oh wow. So we gotta, we got another problem to solve here. Right. So the next phase of product development was looking at modern day lighting and making them human centric and circadian friendly. So we created light bulbs that were devoid of blue and green light that could be used in the evening.

So you could put the lights on around you and that not impact the melanopsin receptors in the skin. And then we bought out another line of different products that were like like lamps and nightlights that did the same thing. And then the final stage of our journey the stage that we're in now we looked at therapeutic frequencies of light. So light impacts the body, all different colors, all different spectrums impacts it in a different way. Look, green can help with like high-end green can help with migraine relief. Blue light can help with keeping you alert and awake 'cause blue light isn't always bad. We don't wanna demonize it.

We can talk about that later. But red light is works in two ways. It puts you in a parasympathetic state by dialing down cortisol. But certain frequencies at a certain I Radiances could actually used for therapeutic benefits. It could actually penetrate into the mitochondria and influence electron change transport to actually increase energy efficiency to help cells repair more. So that was when red light therapy was born because we were like, how can we harness specific frequencies of light to help us heal? So that's the long-winded way of why we're, how I started and why we're here today.

SHAWN STEVENSON: Yeah, it's an incredible journey and I love the story, you know, with the woman and just again, struggling for decades because that's one of the things that really jumped out to me about you. And the work that you're doing with your team is the stories.

ANDY MANT: Yeah.

SHAWN STEVENSON: You know, and for somebody who've been struggling for decades and Where'd you say she's from? Like Crocodile Dundee.

ANDY MANT: Yeah. Northern Territories.

SHAWN STEVENSON: Northern Territories. So she gets the glasses, like it's not, these, not red light black and glasses, these are red light black glasses and they help her. You know, and to help to improve sleep in a very practical way, which is our biology is always trying to sync up with life on planet earth. We evolved with this 24 hour solar day and now we're just able to basically artificially manipulate it at any time and we're unaware of it.

It's kind of just one, one of those things where. We're fish swimming in water, we don't know that we're in water. And just with all these light inputs and it has its own blessings, but also it has tremendous downsides, especially if you're unaware. And so this isn't for us to like go back a hundred thousand years and, you know, and live that way. It's to use our updated knowledge and to enjoy our lives, but now starting to stack conditions in our favor. And so that's the real, the evolution that I saw with you as well is just like, how can we keep stacking things to make it easier and to really honor our biology because as you mentioned, even our skin has these photoreceptors, I was talking about this, you know, over a decade ago.

When my first iteration of sleep smarter came out because it wasn't just in the brain, it was also in the gut. All this melatonin production in storage. And unfortunately, science can be, it can develop tunnel vision. It's just like, this is where this thing is happening. That's the end of the story. Instead of investigating a little bit deeper, and even with this data that our skin is picking up, it's communicating with our internal organs. Right. It's communicating with our brain, our heart, our gut, to try to sync up and find out what time it is. And, you know, leaning into this a little bit more, you've had a huge impact on my life already.

And this is something that is a part of my evening routine is throwing on my bon charge glasses. And you know, one of the things that we just actually watched, what, as of this recording, it was like a day ago, we watched Daredevil.

ANDY MANT: Yeah.

SHAWN STEVENSON: On Disney Plus is a new season. Shout out to Daredevil and putting on those glasses, like there's more of a, like a reddish tint.

ANDY MANT: Yes.

SHAWN STEVENSON: To them than some of those former versions or iterations of blue light or somewhat blue light blocking glasses. Yeah. And it's kind of like a world on fire is kind of how I see it, you know, with the red light blocking, I mean the blue light blocking glasses. And can you talk about that a little bit more? Why is the color a little bit different?

ANDY MANT: Yeah. So when you want to, and this is I think that's a really good question. And the reason it's a really good question is there's a lot of different color lenses out there that you can buy for blue light glasses. You've got clear lenses, you've got yellow lenses, you've got amber lenses, and you've got red lenses. Now, the how each of them works is very different and the way a blue light. Blocking glasses should be created. It's looking at a color wheel. So if people google a color wheel, you'll see that there's all different colors around a wheel. And to block the color that you wanna block, you have to use a tint, the opposite side of the color wheel.

So when you look at blue and green, you'll see orange and red. Okay. So you have to use that color to block that in its entirety. If you don't, you're only gonna have these somewhat blue light blocking glasses that we've coined on this this show. So I like that 'cause they do block blue light and that's just not all of it. So that's the reason why they're that color and the paler, they will get the less light transmittance. There will be, sorry, the more light transmittance there'll be between the 405 50 nanometers. 'cause a lot of people come out and this doesn't happen so much now 'cause people are wisening up.

But back in the early days, one of the biggest problems we had as a brand was educating people on why they should give up clear lenses for these geeky looking color distorting red lenses. Because people would say, well, I'm buying these from this company, and they're telling me these are blue light blocking glasses, these clear ones, block blue lights. And it's like, okay, pop 'em, pop them on and look at the tv. Can you see the color blue? Yes. Well,

they're not blocking blue light then, are they? You know, that's as simple as that. Those types of glasses are used for reducing eye strain. When you're at a computer, they help filter down a little bit of the blue light, which is advantageous if you get headaches and dry eyes during the day.

And, you know, they do somewhat of a job. I'm more in inclined to balance the spectrum myself around my computer by natural lights work outside, that can help things. And then you've got these yellow lenses as well that people say, well, I'll wear those. But they're a little bit different as well. They're for light sensitivity. So the studies that we looked into and why we created a pair of yellow lenses was. At the very front end of the blue spectrum, between 404 30 nanometers was very triggering for people who had lighting sensitivity issues, photo sensitivity photophobia they call it. So these were people that would get migraines.

I was one of them, used to get so many migraines. And it's because I was around too much artificial light, not just from the blue standpoint, but also from the flicker effect of light as well. So those glasses are used for during the day. If you I've got a real acute light sensitivity. Other than that, I don't think people would need a yellow pair. And then the red lenses are then used two to three hours before bed because they block a hundred percent of the blue and green light. Now the other thing is you don't want to flip it the other way. And I keep seeing this like, so I'm staying in Beverly Hills whilst I'm here 'cause I'm over from Australia and we go to ERO one every now and again because it's just got the cleanest food there.

And I've never seen anything like it in my life. It's just this mecca place to buy good food. And every time I go in there, people are wearing blue light blocking glasses, the red lenses. And I'm like, dude, you're gonna screw your circadian rhythms up the other way. You're meant to be wearing those before bed. So I'm bucking up the courage to give a bit of unsolicited advice to those people to say, guys where the yellows in there, but the reds in the evening. So that's why they're red. It has to be red to block exactly. The 400 to five 50 nanometers at the science is saying we should block to get better sleep.

SHAWN STEVENSON: Yeah. Thank you for that clarification. And of course I'm seeing that as well, more and more.

ANDY MANT: Yeah.

SHAWN STEVENSON: And it's well intentioned. You know, people are looking out for the artificial lights and, you know, again, they could be photo sensitive and, you know, and this is one of those things that's very common. We've seen a significant uptick in migraines and headaches in the last couple of decades. And unfortunately, again, people don't attribute that to their light inputs and that strain, and it's not just a strain on our eyes, but vision is like a, it's a brain capacity as well.

ANDY MANT: Yes.

SHAWN STEVENSON: And so that tension that can develop even from that. And so you do provide you provide like, daytime glasses.

ANDY MANT: Yes.

SHAWN STEVENSON: For computer screens and things like that. And eye strain as well. Yeah. Because they're all valuable. But it's putting them in their proper place. And so wearing like complete blue light blocking glasses during the day is defeating the purpose. Yeah. You want those light inputs, especially when you're outside getting natural sunlight. And you know, again. This is why it's so valuable to have more education. And that's one of the things you're really spearheading is not just trying to get people to use a certain product. It's built on your own experience of going through things and struggling with your own health and figuring things out and wanting to be of service.

And with that said, it comes along with education because that's what helped you along the way, was getting educated. And so that's another thing that really makes you special is, you know, also providing like this isn't just about the blue light, black and glasses. If anything, you can encourage people, and that's what I, you did for me is make sure you get these natural light inputs that are free. And so what do you do for yourself when it comes to your sun exposure and the, to start the day and at the end of the day to kind of help to synchronize a circadian clock?

ANDY MANT: Yeah. And you're right, there are so many free things people can do and that's the stuff they should be doing first of all, right? They, you need to the issue we've got as a population work, we are living in an environment that's not. Not optimal for our biology. Okay? So we need to create an environment that optimizes and is optimal for our biology. That's one option. Option number two is you can go and live in the middle of a field somewhere, although I've got a story about that.

Someone went to live in the middle of a field somewhere and the government put a 5G tower up right next to them so that, that doesn't even work. So opt option one's better. So we need to tailor an environment that our body and biology understands as being succinct and optimal for our circ ancient circadian rhythm. So the way you do that, there's a lot of free things you can do and a lot, a couple of products that are weave in along, along the way as well. So the way I operate is first of all, from if we talk from a seasonality standpoint, first of all, and then we'll go sort of dial it into more of a day in the life of.

My natural light exposure is 365 days a year. So in the winter, I'm not hibernating, I'm not staying indoors. I'm out there with just my bed shorts on in the morning as the sun's rising, getting cold exposure, I'm getting grounding with my feet on the earth to produce more negative ions to help my inflammation. And I'm also ensuring that my circadian clock is entrained by natural light. The first light I will see in the morning will be sunlight, but also during the winter, I'm also, and going into spring and autumn, fall before the summer. The reason I, another reason I'm out there is melanin production.

I want throughout the year to be producing melanin so that when I go out during high UV periods in the day, maybe in the summer or in the spring now that sort of temperatures have shifted a little bit. I want to be protected from the sun. Like big mistakes people make is they come on podcasts and say, uvs great. You, you need all the UV light. And then people go out in the middle of the day after not being out in the morning and burn, and that's bad for them. So you've gotta build up to be able to tolerate that ultraviolet light later on in the day. So melanin, super important. That's why you need to be out, not just during the high UV periods, low UV periods and from a seasonal perspective.

So on a day, a daily basis. I will always wake and watch the sunrise. Now, that's easy right now, but it's harder in the winter. So in the winter, I get up before the sunrise, but I put the red lens blue light blocking glasses on. And I put on my circadian friendly lighting, and then I'm in the house like maybe having a coffee, maybe just relaxing coming round in the morning. And then when the sunrises in the winter, then I go outside, take my glasses off, and that's the light I'm seeing. So I'm trying to mimic what my ancestors would've seen if they had woken up in the winter before the sun rose. They would've seen the campfire. So putting the red lens blue light blocking glasses on would mimic that.

So I do that because three things the me, the melanin the cold or the first sort of natural temperature exposure, but also the light. So the reason I want the light is I want dopamine which is great. I want cortisol, which is great in the morning, but I also want serotonin. Now, a lot of people don't understand this. They think, oh, you just make sleep hormones in the evening. It's like, well, you need something to be able to help optimize that production. And serotonin as you rightly mentioned earlier, the gut's heavily involved in storage and production of melatonin and serotonin is a precursor to it.

It's helps in the synthesis of melatonin with tryptophan later on in the evening and the absence of blue and green light. So I want that in the morning. I need that. And then I typically have to do a lot of work on my laptop, so I'll try and work outside where I can, but I know that's not practical for a lot of people. They're working in office, one thing I would recommend if you work in an office is don't sit near a window. Okay. People often say, sit near a window. I'm a firm believer that any kind of filtered light, it's junk light. If you're sat by a window, you are gonna have filtered light coming in, in from the window.

And a lot of these windows have UV tents that are taking out parts of UV light, not all of it. Infrared light isn't passing through, which is very restorative for the body, not far near infrared. And it's changing the frequencies. And there have been some some preliminary studies that have shown that, you know, like truck drivers, like have an issue.

When they sit by a window their arm is more likely to develop non-cancerous or cancerous melanoma. On the arms. So I would be away from the window myself personally, I'd be in the

center of the office and I would balance the light around my computer. So I'd always have my computer on night shift mode because. Apple seemed to think that night shift mode is great for the night. It's not, but it's good for the day 'cause it reduces blue light. It doesn't block it. But then I would balance the light around my computer. So I'd use red light lamps, salt lamps, those types of things. So I've got a more balanced frequency around me.

But what you also wanna do is you want to have. Breaks outside so your eyes can take in the natural light. People go out and have, I don't do it so much. They don't do it so much these days, but they go out and have smoke breaks and things like that. Go out and have five minutes out in the outside, whether it's sunny, rainy, whatever, cloudy, and just get out there, no sunglasses on, five minutes, walk around, stand, whatever, and just let the light cues touch your skin and go through your eyes and then go back in.

Carry 'em working. Eat lunch outside. You know, don't just go and sit in a canteen that's got no windows. Like a lot of people do that. That's one of the worst things you can do. And then you do your morning break, you have your lunch break, your afternoon break, you're outside. And then in the evening if you can do it, watch the sunset. That's also very good. Now it's really interesting. I tested on a spectrometer, the levels of blue light throughout the day. So I got a little spectrometer that I go around testing everything with it wherever I go. And I tested sunset every minute leading up to when the sun actually sets.

And it was really interesting, and I didn't predict this would happen just before the sun dropped down behind the horizon, a massive spike of blue light came up and I tested it three days in a row. It's the same thing, just to make sure it wasn't an anomaly, this massive spike of blue light and then it just dropped to nothing and disappeared. And I'm a firm believer myself, and this is anecdotal, I haven't seen any studies on this, that is the trigger for us to go our body clock to say now is the time to drop. The quarters are, we've seen that big spike and it's dropped, and now it's gone to nothing. And I always sleep better when I see the sunset.

I really do. The data shows that from my whoop and i, my resting heart rate's less. My heart rate variability increases and I sleep better. I get more deep sleep. And then in the evening, this is the setup that really counts. We've done all those three things throughout the day.

Now this is where people will have to purchase something which is a pair of blue light blocking glasses.

As long as a pair is blocking between 405 50 nanometers, that's fine. Like, you know, pick your favorite brand and get them on, but you wanna be wearing them immediately after sunset. Ideally, worst case scenario, two hours before you want to go to bed if you've got something to do. But then I always follow the 3, 2, 1 rule, right? I keep it nice and simple. So three hours before bed I will stop eating. Okay? Don't eat any food because I, the reason I don't want to eat any food is because it goes back to the gut brain connection again. If the gut is processing food, melatonin production could be impaired as well.

So I want that free to produce melatonin. Two hours before I stop any fluid intake. So no water, no electrolytes no, no drinks, basically nothing. If you wanna take drinks like before bed, two hours before glycine, chamal together is very good. And then one hour before power down everything, no devices, no artificial blue light, no tv, no work, nothing. It's parasympathetic time, it's breath work, it's red light therapy, it's yoga, it's stretching, it's whatever someone wants to do, like reading maybe as well. And then at that point, my phone's on airplane mode when I sleep, so I've got no blue light in my room at all. A hundred percent blackout.

I will ensure that I've, I travel a lot, so I travel with black electrical tape. That's the best thing you can travel with because I go around the hotel room covering up all the little blue things. Sometimes I'm lucky enough I can turn the wifi off if I'm at home, so I'll switch the wifi off. That's been shown to impact sleep, in hotels is a little bit more different, so phone and error play mode away from the bed. I mouth tape as well, so I find that nasal breathing helps more restorative sleep for me and it helps my respiratory rate a lot more. So I mouth tape. Everyone's always scared that they're wake up dead.

Wear a mouth tape. You're not, you're good. You're all good. I had to convince my wife that and now she swears by it, but that's really good for me. And then when I go to sleep, I then just wake up with so much energy. Once I've done that routine for a few weeks, it becomes just so inherent. And where I used to feel groggy and like the alarm would go off, I'd be, oh

no. Another hour. Another hour. And that doesn't happen anymore. And I crave jumping out of, literally springing out of bed, going outside and just being outside for a few minutes. And that's how I, that's how I typically set up my day.

SHAWN STEVENSON: Amazing. I saw an interview with you and your wife and she of course was not necessarily jumping on board with the mouth taping. And she saw a measurable difference with her sleeve.

ANDY MANT: Huge.

SHAWN STEVENSON: By doing that. And if you could, so the 3, 2, 1 process, why stop with the liquids two hours before bed?

ANDY MANT: Well, this is the thing, and this is where I'm always about testing things based on how. You perceive things and the issues that you may have. So I had a major issue for 15 years of my life since I went through puberty. If I couldn't sleep through the night, I kept getting up to have to urinate in the night. And that was a big problem for me. So I had to stop fluids two hours before bed because I would then have to get up at, you know, two, 3:00 AM every single night to just go and use the bathroom. And I didn't wanna do that 'cause that was impacting my sleep cycles. So that's personally why I did that. So if people don't have a problem, you know, they have, you know, a lot of liquid maybe before bed and they can sleep through and they do all the other practices, then maybe that's not necessary. But that's, that was why I did it.

SHAWN STEVENSON: Yeah, it's very practical. You know, some people have those big bladders, you know, where they could, you know, chug down a bunch of water before bed, but for many people and who are maybe even sometimes frustrated about getting up in the night. Some, a lot of these things we just don't think about. It's just like how soon before you go to bed are you chugging a bunch of water or whatever the case might be.

ANDY MANT: Yeah.

SHAWN STEVENSON: And just be like, you know what? I always drink like, you know, a quart of water, you know, right before bed or whatever. Like that's really when I'm most thirsty. You know, and so it's just retraining your habits to be able to get your hydration in a little bit earlier. Give your body time to process and you know, get that last batch out before you go to bed. You know, it's just, again, very practical and this does not mean that you have to dehydrate yourself again. It's just strategizing, so you're getting in more water throughout the day and in particular to start your day. You know, it's one of those things that I've been talking about for over 20 years is just starting with that morning bath, you know?

Internal bath. Get up, have a nice chunk of water. I do. I've been doing it every single day to start my day and just helping to flesh out, as you mentioned, you know, going through your sleep cycles. There's so much going on. When you said. I didn't dream, you know? Yeah. Like, that was shocking for me to hear, because now you are a vibrant dreamer. And you're bringing your dreams to reality and helping so many people. Right. It's so powerful. But, you know, different stages of sleep bring about different capacities and changes with the body. During REM sleep, a lot of memory processing is taking place. And also dreaming, of course, rapid eye movement. Sleep is associated with a lot of our dream sequences. And even, we don't know, we don't even understand dream. Your brain creates these elaborate full length motion pictures.

You know, with extras and like sound effects and special, all the things, you know, it's incredible. But a lot of data is now pointed to this impact on the glymphatic system. Which is kind of this extracellular waste management system. You know, we have the lymphatic system with our bodies, but the brain is very protective of what's going on. And we know about the blood-brain barrier, for example, but the glymphatic system and shout out to the glial cells that help to run this.

We know that it's 10 times more active at helping to eliminate and create a pathway for elimination of waste in the brain when we're sleeping. And we now have very strong associations between an inability of your glymphatic system to work properly. Being strongly associated with Alzheimer's disease and dementia.

Right? And so we know the impact that sleep has on all manner of our health, but this part of like really helping to support our sleep for our longevity, for the health of our brain, for disease prevention and the list goes on and on. And by the way, if everybody is wondering where to get some of these blue light blocking glasses that I personally have been utilizing myself and my family. If you go right now to boncharge.com/model, you're going to get a special 15% off discount. This is exclusive with us. That's bond charge.com/model B-O-N-C-H-A-R-G e.com four slash model and use a code model at checkout to make sure you get 15% off store wide. They've got a bunch of different frames.

That was one of the things that really jumped out to me too, because you know a lot people, we have different styles, you know what I mean? Yeah. Different styles and also there's different sizes as well of the frames. And you know, this is one of my favorite gifts to give as I share with you as soon as you got here, like the next person that I'm seeing, I brought them a little gift bag with a pair of bond cards. So good blue eye blacking glasses. You know, it's one of my favorite gifts to give just to support people in their sleep, in their wellness practices. And again, hop over there, check out all these incredible frames.

And also there's so many other wellness supportive devices that you guys have, and we're gonna talk more about that as well. But, you know, I wanna shift gears right now and ask you about something that a lot of people don't think about or talk about. And it's there's some really great science on this. I haven't told you this yet, you don't even know what I'm about to say right now. But literally for a couple of years, if I'm under an exceeding amount of stress or I'm trying to heal, you know, if something happened, you know, like a maybe some kind of a injury or, you know, hurting somewhere. I jump on my PEMF mat and I can't even tell you. And the crazy thing is, every time I use it, my sleep is a little better too.

ANDY MANT: Yeah.

SHAWN STEVENSON: But it's just one of those things where if I need to heal, I double down on utilizing that mat and that technology. Talk about if people are like, what the hell does that even mean? Talk about the PEMF now.

ANDY MANT: Yeah. It's one of those one of those products that is starting to gain a lot of traction. It's been around in the niche biohacking spaces for quite a number of years. And you would've heard of it four or five years ago, but it's starting now to to come into the mainstream, which is good. Always starts at that sort of elite biohacking level, and then it slowly comes through. Now, what it stands for PEMF. Some people call it pemp. It's post electromagnetic field therapy. Now, it's not to be confused with EMFs, like the harmful for ones like wifi and Bluetooth. So the way it works is. The body cells always looking to conserve energy. And the way they look to conserve energy is they mimic what the energy is in the environment you're in.

So if you are in a busy airport, busy supermarket around some screaming children maybe that aren't your own or maybe they are your own, that's gonna stress you out, right? You're gonna start to feel like a little bit more pent up and your body is mimicking the energy in the environment. Now, the same's true for bad EMFs, like wifi and cellular energy can mimic the cells will speed up and that's not a good thing.

But that's a whole new topic. Now, the way the body. Likes to receive energy as in its natural state. So the body loves energies like the Schumann resonance, so that's 7.8 hertz. And what the Schumann resonance is for in, for example, it's the spin of the earth the magnetism that the earth gives out. And it's what you receive when you ground barefoot to the earth anti-inflammatory negative ions. It's amazing for healing. There's also other natural frequencies that are produced within the body of electromagnetic fields like delta waves. So when we go into deep sleep, delta waves are most active, so we get more restorative sleep.

You've got alpha waves, beta waves, which help with creativity deeper meditation, things like that. Now a PEMF mat allows you to cut through the ubiquitous non-native e MFS that are in your environment and allow your body to receive natural frequencies. Now, it's not taken away of going outside and grounding. That's fantastic, but we can't always do that. So we lie on a PEMF mat and pulse through a frequency of energy that we want to receive. For instance, a lot of people that use our PMEF mat have reported really significant improvements in their sleep. So what they do is maybe 20 minutes before bed and to an hour, however long it may be, they'll lie on the PMF map.

They will dial into delta waves and they will just close their eyes and relax, and then they go to bed and get more restorative sleep because our body will start to mimic the Delta wave being pulsed into it, which will get you into that deep sleep quicker, more restorative, sleep quicker. And when you're in that phase of sleep, it'll be even deeper. Now, you can also have a real, you know, stressful day and want to de-stress. So you'd get on and you'd dial into eight hertz, the waves close to the Schumann resonance, and you'd start to feel relaxed and de-stress, and that's really advantageous as well. Now, on a medical side, there's been some studies that have shown that between 13 and 30 hertz, which are found in general wellness PEMF mats, can actually help heal fractures in the bones.

Now, what happens to, to allow that to take place is that when a fracture take place takes place on the bones, the communication pathway is also severed. So one side of the fracture can't talk to the other, and over time it will heal by putting it into a cast. And then the electromagnetic communication pathway will slowly restore. What PEMF has been shown to do is it immediately restores that communication part way, which fuses the bone back together quicker. So that's how it's starting to heal and it's being used in medical settings around the world, and there's gonna be more and more studies that prove this even more as time goes by.

But you touched upon it a little bit earlier as well. It's we are all about trying to help people not have to do a hundred different biohacks in a day. 'cause who has time? No one has time. Gotta work, gotta raise their kids, gotta cook. Gotta go to the gym. And then I'm sitting here saying right now you've gotta do three hours by hacking as well, it's not gonna happen. So the PEMF mat, we decided that rather than just have a PEMF map that is the same as every other mat out there, we wanted to have. Up to 30 frequencies individually that you can dial into. Others have like four settings or something. But we were like, well, let's put far infrared heat in there. Let's heat this mat up to 176 Fahrenheit if that's what we want so we can flush out our toxins, detoxify burn more calories, boost our heart rate variability over time by using in far infrared light.

And then we were like, well let's get some red light therapy in there as well. Like people can do red light therapy whilst doing their sauna, whilst doing their PEMF. So we got some six 60

nanometer red light skin level improvements, helps fibroblasts and collagen production all the way through to near infrared at eight 50, which helps the muscles and joints relax and heal after a hard day at the gym or even just sitting at a desk all day. 'Cause you're gonna be a bit achy. That's in a nutshell how PEMF works and yeah it's a new mod, newish modality. But the anecdotal feedback we are getting in reviews of people that are using it are saying significant sleep improvements has been number one. Number two, people helping to recover from muscle issues.

Yeah. Sore muscle muscles and also the de-stressing as well, like putting us into that parasympathetic state, which is so critical because our lives at the moment are sympathetic, almost 24 7. Like we're on the go constantly. Social media, work, traffic commuting work, like all these things are just keeping our body in this fight or flight condition all the time. And we need to put modalities in that help us to get in the parasympathetic state. Maybe it's candlelight one night, maybe it's a my sister does this a lot with her partner. They do a digital free night once a night where nothing's on by the fire and they'll just sit and talk and eat their food by firelight.

And they're lucky enough, they've got a nice fireplace, they can put that on. But candles could be put on. Maybe it's just reading, maybe it's a PMF, maybe it's red light therapy, maybe it's human-centric lighting. We need to start doing more of that. We really do. Otherwise, we're gonna be running our central nervous systems on overdrive, damaging our sleep and our metabolic health is just gonna deteriorate as we age.

ANDY MANT: Yeah.

SHAWN STEVENSON: Wow. Thank you for that. I mean, the parasympathetic state is a healing state. You know, and how frequently can you get your body in that? And by the way the PEMF mat with the heat is so soothing as well. Yeah. I think a lot of people that have chronic lower back pain or even acute stuff that comes up will find a lot of relief by utilizing the mat, let alone getting better sleep so that you're, because this is re this is when you're really healing.

ANDY MANT: Yes.

SHAWN STEVENSON: There's, it's the ultimate anabolic stage. And wow. Thank you for sharing that. And by the way, just, I'm so grateful to have this conversation because some of these things we don't dive into very frequently, and it's for us to remember that we are literally made of energy. And so all of these different energy implements that are becoming more and more popular in conventional medicine as well, that have been around for decades. And matter of fact, many of these things have been around since the evolution of our species period, but now using them therapeutically. Right. Light inputs, sound inputs sound has been used in medicine for decades. Ultrasound, this is another one of those treatments where we can see an increased rate of healing from certain conditions.

Being able to just simply measure and manage like the particular symptoms or the injury to get a picture of what that looks like as well. And this is from sound, right? Being able to break apart you mentioned the kidney stones earlier. Right. This is a science backed treatment using sound as a treatment for people to heal. And we overlook that like what sound, like literally sound is being used to manipulate our biology. Absolutely.

ANDY MANT: Yeah.

SHAWN STEVENSON: And the same thing come is holds very true when it comes to frequencies, right? Because even sound is operating in that same space with frequency. And that's what we're really picking up when we are thinking about sound. It's just electrical signals for, you know, and interacting and communicating with parts of our brain and our nervous system. But there are certain frequencies that are getting disrupted today. You know, like if we think about, you mentioned turning off the wifi.

ANDY MANT: Yeah.

SHAWN STEVENSON: There have been a lot of really big kind of court cases involving EMFs and wifi already.

ANDY MANT: Yeah.

SHAWN STEVENSON: And it's still like the jury is out. Yep. So I'm using the, it's because of Daredevil. Alright. He's a lawyer. All right. So I'm still thinking in those terms, but the jury is still out on conclusive. This is impacting us in a negative way. We do know that it's impacting us. Even sitting in this room, this, the wifi is able to easily pass through the walls, right? It's easily passing through your delicate human cells. And the question is what is the impact that it's having? And we can just turn a blind eye and say, well, it's no big deal. We're fine. But we don't know, especially the accumulation of these things. But we do know that it's influencing our cells all the way down to our mitochondria.

And so this is about illumination, empowerment, education and also, again, we want to be in this world, but not necessarily of this world. And being able to be aware, like I can do things a certain way to stack conditions in my favor. And so this leads me to, you've already. Discussed some of the very simple practical ways we can get free light inputs to help to synchronize a circadian rhythm, improve our sleep, accelerate healing, the list goes on and on, and just getting into that parasympathetic state. With that being said, for many people today, you know, this, their big catalyst is, this is superficial and that's okay. All right. Nobody's waking up like, I wanna look terrible today. You know, everybody wants to look good, to feel their best. As Deion Sanders says, look good, play good. Right. Your skin is phenomenal.

ANDY MANT: Oh, thank you.

SHAWN STEVENSON: Alright. Phenomenal. And there's, and it's not, you're a guy too, so I would imagine you're not, you don't gotta elaborate. 13 step skincare routine. Get ready with me. Yeah. You know what I mean? A lot of guys, same soap for your balls, same soap for your face.

ANDY MANT: Yeah.

SHAWN STEVENSON: And you know, and but with this being said, there is something exceptional about your skin and many people are now utilizing and taking advantage of red light therapy. And I remember my wife, like maybe it getting close to 10 years ago, but she went for like a facial and got a skincare treatment all thing, and they use red light afterwards.

She told me all about it and it just was like this kind of very fancy experience. And now this is something that's like. Ever present? Very popular. And the question is, why, what is so remarkable about red light when it comes to the health of our skin?

ANDY MANT: Yeah. I think red light therapy has really gained a lot of traction. When you start looking the last few years, more and more people are waking up to its benefits. What, when it was once just in the salons. It's now everywhere. And it's really interesting because the one thing that has brought red light therapy to the forefront is from that aesthetic cosmetic standpoint. The beauty industry has got hold of it in terms of LED masks LED treatments for the face. But that's not where it began. Like you and I will remember, you know, 10, 15 years ago, it was panels, it was big panels, it was used for recovery biohacks. And that was taken put into the beauty. And now we're seeing it swing back the other way.

The panels becoming now more popular again. The amount of people we spoke to that have a mask that are like, we didn't realize you could use this for your whole body. It was crazy. It's like, okay, so more reeducation. But that's fine. It's different journeys. And I'm grateful for the beauty industry for bringing it to the forefront. Now the way it works is it's, I'm gonna try and explain this as simply as I can, 'cause it is quite complex how red light therapy works, but I'll try and explain it basically. So we have something in our cells that produces energy. So energy is often referred to as a ATP or adenosine tri phosphate.

Now, when electron train transport happens, there's four phases and it's the fourth phase that's really important in terms of red light therapy, and there's something there called cytochrome oxidase, which will come on to in a minute. But basically it's the precursor to produce optimal energy. Now what happens is when we become inflamed. So this could just be from stress, from pollution, from just being in a sympathetic state too long. So this's, I'm not talking like major medical issues here. I'm talking just general information of existing in cities or the world these days, could be from EMFs even. We actually increase the level of nitric oxide within that electron chain transport system.

And that's not a good thing. And it's not a good thing because cytochrome c oxidase needs oxygen to produce the energy. And what nitric oxide does is it starts to take that oxygen away

from that fourth phase. So there's not as much oxygen free to produce energy efficiently. So our cells might produce, our mitochondria might produce energy, but maybe at 80% of its threshold, 70% six, whatever it may be, depending on how much nitric oxide inflammation is in the body. Now what was really interesting with red light therapy is they studied certain frequencies of red light at different, I radiances different power densities. And it seemed between sort of 630 and six 60 nanometers red light and around 800 to eight 80 near infrared, which is an invisible light. This seemed to, when shined on an area of the body, reduce down the amount of oxygen that was required by nitric oxide to produce to neutralize itself.

'Cause it's trying to get out of that system, which freed up the oxygen to react with cytochrome oxidase and produce more energy efficiently. So by utilizing red light therapy, we're providing more oxygen at the fourth phase, cytochrome sea oxidase reacts to it. More energy is produced efficiently. So what that means is when a cell is allowed to perform optimally. We're giving it the right fuel, a hundred percent fuel tank put in there with high octane fuel from red light therapy. It can do what the cell is supposed to do. So each cell does different things. So when it comes to the skin, it's called something. It's something called fibroblasts.

So those cells are then optimized from the energy efficiency standpoint and what they do, what their purpose is pro it produce something called collagen. And collagen is the elasticity in the skin. It allows you to keep your skin glowing. It reduces appearances of fine lines and wrinkles. It contours the face. It allows like an even skin tone. And that's what it's meant to do. And as, as we age, every year that we age, we, our body's ability to produce collagen decreases. And that's why we see people age, right? The, a face of a 20-year-old looks very different to a 40-year-old, to a 60-year-old, to an 80-year-old because collagen levels are decreasing.

But you can actually slow the pace of collagen degradation down by utilizing red light therapy because it works at the cellular level to optimize the cells, making them more efficient. So that's why things like red light face masks have been super popular because the results speak for themselves. If you get a good mask that has the right, I radiance the right level of LED

placement on problem areas of the skin, with the right frequencies of red and near infrared light, you're gonna boost your skin health by producing more collagen.

Now that's from the red light, so that's the visible frequency that you see. There's also near infrared in these masks, which is around 850 nanometers. And what that does is that penetrates further than red light. Red light only penetrates into the skin. The dermis level near infrared goes into the muscles and it goes into the joints. So it's typically used for recovery. So if you have bad knee shine on the red light will improve osteoblasts, which will then help with joint recovery. The energy efficiency will be much better there, but it works at a skin level because it relaxes the muscles. So when your muscles are all tight all the time, that's when you're gonna start seeing the sort of wrinkles appear and the fine lines both on guys and on women.

And. You know, there's horrible things you can do to relax the muscles in your face. You know, you can use injectables and things like that, which, you know, botulism is not really gonna be great. You're poisoning your skin, but you're using near infrared light to relax the muscles. It's a more natural way to do it. So that's how it works at skin level.

SHAWN STEVENSON: Wow. Holy mackerel. That's one of the things that I'm seeing a lot now are the red light therapy mask. And I believe that it's because of the ability. To stack. Right. The habit stacking.

ANDY MANT: Yes.

SHAWN STEVENSON: You don't have to stop what you're doing to put the mask on, you know, you could do other things. You could do your meditation and have the mask on, and also get those inputs. And also a big part of this success when it comes to getting the benefits from red light therapy is consistency.

ANDY MANT: Yes.

SHAWN STEVENSON: And that's one of the things that a lot of people don't get. We're very big in our culture. We want things immediately. You know this.

ANDY MANT: Yep.

SHAWN STEVENSON: I want my package, not just tomorrow. I want it today. You know, I got Amazon Prime, I want it today. And you know, but health just doesn't work like that. You know? But here's the thing, we do see immediate change if we're looking at the cells. Yeah, we know this. But to see that outer change really show up it takes a couple of weeks. And as a matter of fact, this was one of the most fascinating studies that I've seen in this subject matter. This was a double blind. Randomized placebo controlled trial, and this was published in the Journal of Phyto Chemistry and Photobiology.

ANDY MANT: The gold standard.

SHAWN STEVENSON: It doesn't get better than this because they actually used fake red light, and it's just like, how would you do that? Well, you know, it's the irradiance. A light can appear to be red, but it's not in that spectrum of therapeutic. And so they treated people's faces. They took 76 patients with notable wrinkles and treated half of their face with red light therapy near infrared therapy, by the way, or both.

While the other patients received a fake light treatment that was used as a placebo. Participants received two light therapy treatments each week, and that's the key. There are two, two sessions a week being consistent for four weeks. Here's what happened with just four weeks of treatment, participants who utilized the red light therapy, the actual red light therapy, had a 36% reduction in wrinkles and up to 20% increase in skin elasticity.

ANDY MANT: Wow.

SHAWN STEVENSON: That's crazy.

ANDY MANT: That is crazy.

SHAWN STEVENSON: In just four weeks.

ANDY MANT: Weeks and only twice a week.

SHAWN STEVENSON: They two sessions a week.

ANDY MANT: Wow, okay.

SHAWN STEVENSON: It's powerful. Powerful stuff. And so we could take this as a daily implement, or maybe we get 10, 12 minutes a session in. You know, a few times a week, we'll say four to five sessions a week. But also that can cap out, just like with anything, there's gonna be diminishing returns. And so a big part of leveraging when it comes to biohacking in particular, is that minimum effective dose.

ANDY MANT: Yes.

SHAWN STEVENSON: And so doing whatever you can to get in at least two to three sessions a week is ideal. And what's so special about this for me now, of course. The masks are one thing, but you mentioned the panels are really coming back into form right now is because it's a whole body benefit. It's not just the skin on your face. Right? This can help to accelerate recovery. This can help to release and relieve pain. And I wanna share one more quick study with everybody because in particular with reducing pain, this was a massive meta-analysis published in the British Medical Journal, the BMJ.

This is one of the top tier journals in the world, and it sought to see if red light therapy could reduce pain in people with osteoarthritis versus a placebo. The study included over a thousand people and found that red light therapy significantly reduced knee pain in participants. But not only that, and this goes back to what you were sharing earlier, the results appear to have semi lasting effects with benefits seen up to three months after treatment.

And the researchers stated, "the positive effect from red light therapy seems to last longer than those of widely recommended painkiller drugs". And the icing on end quote, and the icing on the cake is that the red light therapy was found to not only reduce pain, but to improve function. It didn't just release and relieve pain, it improved function. There was some repair happening. And this speaks to the impact that you were sharing about the mitochondria?

ANDY MANT: Yeah, absolutely. It's the most studied frequencies of light red light therapy. So over 4,000 studies, over 400 of them are double-blind placebo. The first one you read was one of those, the gold standard anyone that disputes red light therapy, it's, yeah it would confuse me because there is so much out there and so many studies, almost all of them show no side effects to this modality as well. It's not as though you're gonna, you know, pop a pill and end up with a whole host of side effects, but then the knee feels a little bit better and it's so those whole lasting effects as well.

You're not just, you know, a lot of people will turn around and say, you know, the naysayers be like, oh, it's because it's warm. It just warms the joint and makes it, you know, relieves it temporarily. It doesn't. That study purely truly shows that the effects last for a long period of time, and it's not just the effects of helping a symptom, the functionality is improving as well so people can actually get out and exercise more and, you know, do the things that makes them biologically healthy.

So yeah it's fascinating and, you know, it's good to see panels coming back as well and you know, again, we touched upon it earlier, it's this whole habit stacking thing. Panels, panels are great because you can do some stretching, some breath work, you can sit in front of them. That's great. Yeah. But some people don't do that and maybe they're not ready in their journey to start doing those sort of yogurty, breath worky things that, that a lot of us do and swear by. So that's why it was really important for us to have different ways we can administer red light therapy, whether it be from a mask, a wand, a panel, and then we came up with another product.

It's now our number one best seller. It's much better than the much more popular than the mask. It's a different modality. It's the red light therapy blanket. This thing's like a sleeping bag. You get into it and you've got 360 degree red light therapy. So let's just say you're not at the phase yet of your breath work in the evening, but you like watching you know, dancing on the ice or whatever your favorite show is. You slip into that for 40 minutes, watch your show on TV with your blue light glasses on. You're getting your red light therapy without having to do something different and make time to, to do this thing. And that's been super popular.

And you know, it's how it's with ev everything in health and wellness is only as good as adherence.

Like I could sit here and say to you, the best diet in the world is X, Y, z, a carnival diet or vegan diet, whatever it is. If you hate vegetables, you ain't gonna follow a vegan diet. If you, it's just not gonna adhere. Even if we say that's the most healthy diet, if you, if I say carnival is the most healthy diet and you hate meat, like you're not gonna follow that. It's just not gonna work. And the same with red light therapy. If we are saying you've gotta sit in front of a panel every night, like to me that's like, no problem, absolutely no issue. But to someone else, we'll be like, nah, I'm not doing that. It's just not gonna happen. So I'm not gonna do red light therapy. So we've got to make sure there's different applications of this modality that people can choose from, so they can choose one that fits seamlessly into their routines.

SHAWN STEVENSON: Yeah. Thank you for that, man. Because again, I know it it's a lot of work. It's a lot of work.

ANDY MANT: Yeah. Behind the scenes to make these things available. And it's just more and more catering to the way that society is structured. You know, a lot of people, we want change, but we don't wanna change that much Yeah. To get that change. And so it's just making it easier to stack conditions. And so obvious you mentioned earlier too, like people can pop over to Amazon and grab these different devices.

But this is where things get really sketchy. Your red light therapy mask is the one that has emerged as the best in the world, and you guys are going through and actually checking the boxes and have third party verification for the irradiance. You've got devices and including the blue light blocking glasses that are FFDA registered. And you guys are going above and beyond to make sure that what people are wanting, they're actually getting and it gets sketchy when you're getting this from random companies. And so it's just like you're also going through and doing what is necessary to make sure that people can trust that what you say they're going to get, they're actually going to get.

SHAWN STEVENSON: Yeah. And I appreciate that. What, why was that so important to you?

ANDY MANT: Oh it's so important because there's, the problem is you get two types of companies that come out. When it comes to anything in, in wellness, you get the ones that care. And from what I've seen. That's not many people, and you get, let's just say 10%, these are just sort of random numbers. Then you've got the other 90% that seem to just see a trend. They're marketers. They'll pull something out of you know, Alibaba, China, slap their logo on it, and then just sell it through Google ads, meta ads, those types of things. And that annoys me because. It's not just bond charge that are doing the whole scientific third party testing.

There are other brands out there that do it, and there, there's some phenomenal brands out there that offer red light therapy, and I want to caveat that. But there's just so many that are out there trying to make a quick buck com people into buying things that are cheap off Amazon, that have no testing for EMF levels. So when you're sat in front of a panel frying your cells, because the EMF levels are so high, even though you're getting some red light therapy, the irradiance hasn't been tested. They're just saying, oh, I've heard a hundred milliwatts, percent of me to squareds. Great. So let's just say that you need to have third party tested.

But also things like what's important to me is I want to educate. We've always been education first. That's how we started the brand. I wanted to explain to people what has helped me, what I've read in the studies and people to adopt that and know what kind of questions to ask when purchasing these devices. And something I always say when I'm on podcasts is I'm not fussed if you buy from bond charge or not. What I wanna give you guys is a checklist of what to ask for because you can't take people's word for anything. So you wanna be asking for red light therapy. You wanna be asking for a radiance and seeing third party reports for irradiance.

So irradiance is the power density that the red light will emit into the body. And if it's too low, you might as well not bother. If it's too high, it can actually be dangerous. If it's over like sort of one fifties, one 60, it can start to get dangerous. Because people just think, oh, I want the highest I radiance. It just means that you'll spend the higher the radiance, the less time you have to spend in front of it. So you wanna be making sure that's right. You wanna be making

sure that people aren't just, I. It's I like to call it wellness washing. And it's used in so much as everything now is described as science-backed.

And that annoys me because there's no backing of science behind that product. So yes, we get the third party testing reports for EMF for a radiance. We check the, it is actually six 60 nanometer LED. We make sure our manufacturers are registered as nd sap medical suppliers. These aren't just factories banging out products. These are ones that are audited every year by the FDA. They come out and they audit their their labor laboratories where they're making things. And that comes with a price. So yes, it's gonna be more expensive than the ones you'll see on Amazon, but they work and they've been in independently verified that they'll work.

But the other thing that was important to us was. About nine months ago now, we started our scientific advisory board and we started with two or three doctors. It's now up to six on there. And you know, you are, you're obviously part of that as well. I'm very humbled that you would join such an esteem collection of people that are really inputting into how we do business. And I'll talk to the mask because one of the first doctors we bought on Dr. Shabana Dyer, so she is qualified in dermatology aesthetics and a few other sort of aesthetic qualifications as well that she has. So she's based in London massive experience in dermatology and we gave her our, gave her our mask and we said tell us what's wrong with this?

And she looked at it and said, look, your irradiance is perfect, your number of LEDs perfect. You're getting full face coverage. But there's one thing in there that you could do better. And this is where like Arias picked up, and this is exactly what we wanted. She said, there are specific areas on the face where fibroblast production will happen more. So there's more degradation happening in certain areas of the face because the fibroblasts are being suboptimal, performing at that area. And she was saying, you haven't got LEDs here. Just by the top of the eyes. So we went back our, we got two PhDs in Sydney as well that developed products. So these aren't people that are just buying products.

They're PhDs that are developing products now. They went back to our supplier, we got them changed, and then the face mask evolves three months later. Those are on there. So that's

important to us as well. We want to continually evolve our products. What we think is perfect, might not be perfect in the eyes of someone that has studied dermatology for 20 years of their life and pulling on that expertise is so important. And we got people across all different areas and of expertise in research, in you know, the PhD qualifications that they have to be able to look at our products and continually improve them based on what science is constantly coming out. So we're just also about to launch to version four of our face mask in three years because more.

Information is coming out on another frequency that should be put into the red light mask. And I won't say what it is at the moment because it's it's embargoed, but that will be coming out around July, August time, which will be a two, like 4.0 mask because we found more studies that have said there's another frequency of light that needs to be in there that doesn't disrupt circadian rhythm. It's still within the bounds of red light therapy that should be in there to intensify results. So we will always evolve our products as well.

SHAWN STEVENSON: Amazing. Amazing. And one of the other reasons that you're out here, and of course this is preliminary, we're not gonna share all the details right now, but you are investing in putting your products through trials. And actually, again, verifying so that you can really check all those boxes for people who are very much looking to improve their life. People are struggling right now.

ANDY MANT: Yes.

SHAWN STEVENSON: People are in pain. People are struggling with their sleep. They're wanting to look better, they're wanting to feel better. And this means a lot. This means a lot to you. This means a lot to me to make sure that we're able to provide real world solutions and to take some of this complexity out. Right? So of course we wanna provide the education, but also you don't need to know all the ins and outs. You just need to be able to trust that it actually works.

ANDY MANT: Yes.

SHAWN STEVENSON: And so we're leaning into some of the most powerful inroads into human biology, which again, is these light inputs and this whole subject of circadian biology, circadian medicine, this is really. The, what we're gonna see in the next decade is going to be leading as far as this discussion around health. You're gonna see more and more supplements, medications, all of these kind of trying to point towards influencing this circadian clock. And with that being said, I got another question for you regarding best practices on some of these inputs. So we know the best time to put on the blue light blocking glasses.

ANDY MANT: Yes.

SHAWN STEVENSON: But what about something like red light therapy? Is there like a optimal time for us to utilize red light therapy?

ANDY MANT: Yeah, that, that's an interesting one because I feel that really comes down to individuality and how you respond to red light. The therapy, I find red light therapy personally really relaxes me. It puts me into a real chilled state. It's probably 'cause of the practices I'm doing around it, like breath work and things like that. But some people have reported that it energizes them. It makes them feel like, oh great. I'm like, go and do red light therapy, then I can go and pump out, you know, a hundred kilometers on the Peloton or go and do a hundred chin-ups or something like that.

So a lot of people can use it before the gym 'cause it energizes them. So you really wanna see how it makes you feel. I think that's probably the best thing to do. I mean, typically I would, I always look at things from an look at things from an ancestral standpoint. When would the frequencies of light in that, in a specific product be available to you naturally. And it just so happens that near infrared and red light is available to us 24 7. Firelight, our ancestors would've saw throughout the night that contains near, far and red during the day. Sunlight has near, far red and all the other frequencies. So I don't think there's any particular time that makes it more optimal than another.

And I think it really just comes down to testing it yourself. How do you feel after using it? Maybe try it at different times of the day. Does it impact your sleep positively or negatively in the mornings? Are you feeling more energized or are you just feeling a bit too relaxed in the mornings when you want to be a bit more energetic? So that's where I position that one.

SHAWN STEVENSON: That's such a great answer. That's such a great answer. And again, this is going back to we've got self quantification, we've got these devices, we've got, you know, trackables

ANDY MANT: Yes.

SHAWN STEVENSON: And wearables that we can track to see that response. But also if we could just pay attention to how you feel, you know, based on these treatments as well. That's my favorite method of testing these things. Because again, for me it's more meditative, you know? That's how I feel. The first time I ever got into one of those big red light therapy beds back in the day, way back in the day, it's just like, for me it was like almost instant meditative kind of state. More relaxing.

ANDY MANT: Yes.

SHAWN STEVENSON: And so this is something for me that I would prefer to do towards the end of the day, and to help with that kind of relaxation and also recovery as well for me. But some people start the day with it, you know? Yeah. And so again, just finding, but also it works if you work it. And that's one of the big takeaways from today as well. And you know, there's so many different directions that we could go with this. I know I don't have you here for that much longer, and so I want to ask you some rapid fire questions.

ANDY MANT: Sure.

SHAWN STEVENSON: And you know, again, we are focusing this episode for everyone around biohacking. And this mantra, this moniker of biohacking has. It's diverse in the way that people perceive it. But for you, number one, I wanna ask you, what does biohacking mean for you?

ANDY MANT: Biohacking means optimizing my biology in any way I can for the best. So by that I could, that could mean changing my diet, weighing my food, not weighing my food, taking certain supplements, or really getting my body into a state where each and every cell functions optimally.

SHAWN STEVENSON: What would you recommend, if you could give everybody one biohack that everybody could do throughout the world, every day, what would it be?

ANDY MANT: Watch the sunrise.

SHAWN STEVENSON: Would you recommend, when it comes to, you've already mentioned, you know, your, I think it was your friend or maybe your sister that does the one night.

ANDY MANT: Yes.

SHAWN STEVENSON: One night a week. Because was your sister?

ANDY MANT: Yes.

SHAWN STEVENSON: The fireside chat once a week?

ANDY MANT: Yes.

SHAWN STEVENSON: What is something that we all could do in the evening to help us to kind of wind down and set, dare I say, a sexy mood?

ANDY MANT: A sexy mood. Okay. I think for me personally, I think get the circadian friendly lighting on. So dim the lights if you don't have it and just get some beautiful classical music on. That really resonates to me and puts me into a parasympathetic state. And I think that, you know, try and biohack together as well. Couples that biohack together, stay together. As cliche as it is me and my wife do it a lot. Like she, she'll be on her PEMF mat and I'll be on my red light therapy blanket, which comes apart into two mats, so I'll lie on that. So just doing things like that together. But for me the big one, if it's a more sort of romantic. Nice

parasympathetic mood. It's classical for me. The old classics, you know, the baroque sort of bark and that type of music is beautiful. It's just, it resonates with my cells.

SHAWN STEVENSON: Yeah. There goes back to frequency.

ANDY MANT: Yeah.

SHAWN STEVENSON: And we got sound science on it's influence on our brain and nervous system. Incredible. And by the way, I'm asking that because as soon as I got, I've got a little red light lamp that I got from you.

ANDY MANT: Yeah.

SHAWN STEVENSON: And it's like, it just reminds me of TLC Red Light Special. I don't know if you know it, but do you know this song? Yeah. Shout out to TLC. They're going on tour apparently now, but Red light special. It's sexy. It's some sexy stuff.

ANDY MANT: Yeah.

SHAWN STEVENSON: And I want to ask you this, if everybody, there's thousands of different modalities when it comes to exercises and different things to do. If there was one exercise that you can recommend for everybody to do, what would it be?

ANDY MANT: I would say walks in nature.

SHAWN STEVENSON: Yep. Perfect. Perfect. Last question. What is the model that you are here to set for everyone else with the way that you live your life, personally?

ANDY MANT: I want people to not just listen to one person and make decisions on their health. I want them to listen to multiple people, look at their own health journey and what and how it needs improving, and do everything that is right for you. Don't let anyone tell you that this is the only way to be healthy. Do your own research. Listen to people you trust and formulate your own plans. Otherwise, eyes, I think if you do it any other way, you're gonna,

you're gonna fail and run into problems. I think you're gonna make your own decisions. And don't just take one person's word for this is optimal.

Like it's down to yourself and there's so many people out there that can give amazing bits of information in different areas and take those bits that resonate to you. And just make your own health plan.

SHAWN STEVENSON: I love it. I love it. Just what we were talking about before the show. Evidence-based. Absolutely. But n of one all the time is the most valuable experiment that you can ever undertake is what works best for you right now. Where can people connect with you?

ANDY MANT: They can connect with me personally on my Instagram. That's probably where I'm most active. I am Andy Mant. If you want the educational content, our scientific advisory board. Filter through to a lot of our content that's on our bond charge Instagram, but also on articles on our web website as well, which I think is really vital. Join our newsletter so we can get our educational content to people that want to digest and understand more about how light impacts us physiologic, physiologically. So yeah, the website and Instagram are the best places.

SHAWN STEVENSON: Amazing. This has been amazing. I appreciate you so much. I mean, I know you've come very far distance to be here today and it's been a pleasure, man. I appreciate you.

ANDY MANT: Yeah, I really appreciate you too, and what an epic conversation. Thank you.

SHAWN STEVENSON: Of course. Many more to come. Yes, the one and only Andy Mant. To everybody, thank you so much for tuning into this episode today. I hope that you got a lot of value out of this. If you did, you already know what to do. Share this out with somebody that you care about. Keep this message going. Was there anything in particular that really jumped out at you that you want to try out, that you want to utilize?

Is it the red light therapy mask? Is it the PEMF mats? Is it the blue light blocking glasses? I could tell you for myself personally, something that I use every single night are the blue light blocking glasses from bond charge. And again, you get 15% off of everything storewide when you go to boncharge.com/model. Use the code model at checkout and take advantage. Again, that's B-O-N-C-H-A-R-G e.com/model. And as with anything, it still boils down to the basics. We wanna make sure that we are getting optimal sun exposure and helping to set those circadian rhythms to the best of our ability. And also being gentle with ourselves, being kind with ourselves.

We don't have to have all this stuff perfect, and it's just about awareness and moving towards stacking conditions in our favor so that our amazing biology can do what it's designed to do, which is to deliver us better health, more energy, and the ability to create the life that we truly want. I appreciate you so much for tuning us this episode today. We've got some amazing masterclasses and world leading experts coming your way very soon. So make sure to stay tuned. Take care, have an amazing day, and I'll talk with you soon.