

THE MODEL **HEALTH** **SHOW**

EPISODE 647

The Stress Prescription: The Surprising Connection Between Stress & Longevity

With Guest Dr. Elissa Epel

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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. There is a dirty S word that's causing 80% of physician visits today. I'm talking about stress. According to a study that was published in JAMA Internal Medicine, this is a journal of the American Medical Association, Internal Medicine, the researchers found that upwards of 80% of all physician visits today are for stress-related illnesses.

Now you might be thinking that I thought physician visits were from infections and from blood sugar abnormalities and for weight issues. All of these things have a key ingredient. Matter of fact, it's the main ingredient in the recipe and that is stress. Because even when we're talking about metabolic dysfunction and blood sugar abnormalities, we're talking about a stressful biological event that's taking place. And if we take a step back and look at what is stress actually doing to our bodies, why is it leading to so many different breakdowns of our bodies and again, a leading cause of physician visits today. One of the hallmark traits of chronic stress is the shortening of our biological marker for how long we're going to live, is the shortening of our telomeres.

Now, our special guest today knows a thing or a thousand about telomeres. She actually co-authored the book, The Telomere Effect with her Nobel Prize winning co-author, Dr. Elizabeth Blackburn. But our guest today, Dr. Elissa Epel, she's bringing the tangibility to the subject matter. What are the things we can actually do in our lives to affect our telomeres and again, one of our biological markers for how long we're going to live. Our telomeres are essentially these end caps at the end of our chromosomes and as our cells are dividing, as life is going on, we're doing life stuff, these telomeres are getting shorter and shorter, getting clipped off little bits, bit by bit over the years are getting clipped off into a place where our cells can no longer replicate, and we have the onset of senescence.

We have a cell death, or those cells can become abnormal and inflammatory and set off a stressful cascade in the body. The bottom line is our telomeres are giving us an indication of how long we're going to live but most importantly, how long we're going to live healthfully because it's not just about our lifespan, it's about our health span and how long we're going to live and still be able to truly live.

And again, our telomeres are one of the biological markers that we have today that can tell us how long that's going to be. It's a little bit of future casting built into our bodies. Now, with the shortening of our telomeres, again, we have the propensity towards increased rates of something called oxidative stress. Again, keyword stress here. And this oxidative stress, these

free radicals that are essentially going to be potentially heightening in certain areas of our bodies or systemically are going to lead to further breakdown and degradation of our system.

So, this is why antioxidants, so we've got oxidation happening, antioxidants are so important. Now a little fun fact is that our bodies actually make a ton of antioxidants that do wonderful things for us. But even what our body makes, it still needs key nutrients and able to build those compounds. Our nutrition is so important with our body's ability to manage and modulate stress. And also, of course, we know that today we've got access to some of the most remarkable sources of direct antioxidants from the foods that we're eating. And one of the most dense sources of antioxidants measured by its ORAC value is acai.

It's a 103,000 ORAC value. This means that it's about 10 times more antioxidants than the foods that you generally see in the produce aisle. All right, acai is in a whole different category if we're talking about these super fruits. Now does this actually translate over to helping our bodies to manage oxidative stress. Well, research that was published in the Journal of Agriculture and Food Chemistry found that acai does in fact raise our blood antioxidant levels, demonstrating how well humans assimilated in its interaction with our microbiome and also again the assimilation through our gut and being able to be utilized systemically.

So, it's not just that it's there and we can measure it, we can actually absorb it really well and utilize it in the human body. So that's a huge check mark for acai. But what if you can get acai plus other antioxidant rich super fruits like blueberry? And researchers at the University of Michigan published data finding that blueberry intake can potentially affect genes related to fat burning. All right, all super concentrates of antioxidants. What about beet? A study published in the Journal of Applied Physiology showed that drinking beet juice boosts our stamina up to 16% during exercise.

All right, these again super concentrates of antioxidants that are able to have these great outcomes and also to protect our body from excessive oxidative stress. I get all of these combined in the red juice blend from Organifi. It's easy to travel with. Actually, when I travel, I take the little go packs and add it to water. And this is such a huge upgrade on getting our micronutrient needs, antioxidants than what we grew up with in this paradigm of these so-called multivitamins.

When I was a kid, my grandmother would give me these Flintstone multivitamins and I haven't shared this before, but one time I actually snuck and got a few too many. Because it tastes like candy. It's just sugar and some synthetic micronutrients. I probably, I don't know, maybe 10, 15, maybe 20. This is my usher confessions right here. I ate about 20 of them, Flintstone vitamins and I probably got enough B12 to fuel a full-grown moose for about a week. So, I was like, of course, being able to do crazy amounts of mental math. I was probably six at the time and I

was able to write a dissertation and get my doctorate degree. All kinds of crazy stuff was going on.

Actually, it's probably in an altered state. But that's the paradigm that we grew up with, with these synthetic candies versus real whole food, superfood concentrates of nutrition that is again, with Organifi's red juice formula. This is low temperature process to actually retain the nutrients. They're coming from bioavailable real food sources versus the synthetic versions of those things, so there's a greater resonance with the human body. And again, these are all things to help us to reduce our oxidative stress, reduce the likelihood of the shortening of our telomeres.

It is that powerful versus the other stuff, the sugar coming along with those kids' multivitamins and also just the sugar dense nutrition foods, so-called foods, food-like products that we're exposed to today that are shortening our telomeres. We can counteract that with real superfood concentrates. Go to Organifi.com/model. You get 20% off their red juice formula and also their green juice blend and their gold as well with another superfood highlighted which is turmeric. Go to Organifi.com/model. That's O-R-G-A-N-I-F-I.com/model for 20% off. And now let's get to the Apple Podcast review of the week.

ITUNES REVIEW: Another five-star review titled “Captivating” by Jude L. Kiss. “Shawn, from the first listen, I was blown away by your content and delivery, enthusiasm and not so subtle way of telling me what's up. My subconscious loves to argue with you because most of the time, you're right. Also, from one research nerd to another, I love that you bring the science to each and every supplement and product recommendation. Thank you for bringing us to the top names in the industry to dispel myths. Can't wait to see what's in store for 2023. Don't hold anything back.”

SHAWN STEVENSON: I love this so much. Thank you so much for taking the time to leave that review over on Apple Podcast. And trust me, I will not be holding back by any stretch of the imagination. And that just really hit my heart. I really do appreciate that. If you get to do so, please pop over to Apple Podcast and leave a review for The Model Health Show. And on that note, let's get to our special guest and topic of the day.

Our guest today is Dr. Elissa Epel. She's an internationally renowned health psychologist who is pioneering the field of stress resilience. Dr. Epel studied psychology and psychobiology at Stanford University and also received her PhD in clinical and health psychology from Yale University. Currently, she's a professor at the University of California, San Francisco, and the director of UCSF's Aging, Metabolism and Emotion Center. She serves on the Scientific Advisory Committee for the National Institutes of Health. She's received awards from Stanford and also the Society of Behavioral Medicine and the American Psychological Association. And

to top it all off, she's also the co-author of the New York Times bestselling book, The Telomere Effect. Let's jump into this amazing conversation with the one and only Dr. Elissa Epel.

Alright. This is such an honor to have you here. You're one of my favorite people. You don't know this. You didn't know this till today. Your book is over there on the shelf here in the Model Health Show Studios. All the time like, an essence of you is here.

DR. ELISSA EPEL: It's amazing, the word telomere is in your body, you see it every day.

SHAWN STEVENSON: Every day. So, I appreciate you. And I've just been diving into your world in this new book, and it is so powerful, so timely. And I've got a whole bunch of questions for you. In the book, you kick it off with an incredibly important insight. You share that as tough as stress can be to cope with sometimes, we would be a lot worse without it.

DR. ELISSA EPEL: Or maybe not here. Right? Maybe not alive if we didn't have it guiding us toward safety, even social safety. It is a critical part of our motivational system every day. It's nudging us thinking it's helping us. Sometimes it's a little overactive. We'll talk about that.

SHAWN STEVENSON: Awesome. But it's built into the fabric of being alive. You just said it. That's the thing. I think we have this very idealistic thing. We're going to get to this bliss point and just live there in eternal bliss. But stress is a part of life. And it's like an ingredient, isn't it? Into growth?

DR. ELISSA EPEL: Yes. And the slings and arrows are just going to come at us, period. And so, it's not about trying to control what's happening out there. It's all about partly giving up and saying, okay, I'm not in control. I'm going to control my body and my response. That's what I got. And then finding the areas we do have control and going for it. They're putting our energy there instead of, we spend so much energy trying to control the future.

SHAWN STEVENSON: Yeah, you brought something really to the forefront of my mind just kicking things off that we have a stress response for a reason. Let's talk about that.

DR. ELISSA EPEL: Yeah. So, our stress response is why we survive. It's the alarm system for danger, whether, predators, natural disasters, someone unsafe. We need it and we got to listen to it. And we are so evolved that it's become a bit dominant because it's a little bit over-triggered these days with the information coming in from everywhere, from media, from news, from just a stimulating environment. You live in the city. So, you are more under stress than someone who lives in the country. And you don't even know it. Right? Because you're used to it.

SHAWN STEVENSON: Yeah. It's like we're actually... The key here is also it's the environment itself. We adapt to it in a sense. And our adaptations might not necessarily be a healthful adaptation because you also talked about stress impacts essentially everything about us, our cardiovascular system, our digestive system, even how we store fat.

DR. ELISSA EPEL: Yeah. Yeah. And what we eat. I'll have to talk about that. It's shaping everything. I think it's like a house we live in. It's like an umbrella that shapes all the health behaviors and our judgments. And are we scanning for danger or are we actually noticing a beautiful new flower in bloom? Stress doesn't let us see the flower.

SHAWN STEVENSON: So, stress, again, it's valuable and necessary. And chronic stress, however, can be toxic to our bodies. And I don't think there's anybody better to talk about this than you in your understanding of how it affects our telomeres, for example. Let's talk about chronic stress and what that can do to our lifespan, potentially.

DR. ELISSA EPEL: Yeah. When I started out almost 30 years ago, I was just fascinated with how does chronic stress get under the skin? It's like this mind body mystery. And it was so interesting to find out the pathways. The field has come a long way. But then, I've been under chronic stress. Most of us have been or are right now. And the mystery just disappeared. It's like, oh, that's what's happening, everything changes.

I wasn't having time to exercise. I wasn't sleeping. I wasn't cooking good meals, wasn't having time to socialize. So social support disappears. And all that goes down together during periods of stress. But if you're under chronic stress, then you're just, really vulnerable to everything bad, right? Depression, disease. So, the mystery was gone, but there's still direct biology that chronic stress mind state creates in our body at the cellular level. And I feel like that mystery has still been unraveling and we have some clues there.

SHAWN STEVENSON: Yeah, yeah. Again, we don't really think about this because it's just what we're existing within. We're in this glorified snow globe, in a sense. And if we really drill down, so this is the meta perspective looking at what we're existing in. But if we go down all the way to our chromosome, can you talk a little bit about this? And of course, we'll put your first appearance in the show notes for everybody. Can you talk about what telomeres are? And then is there anything that we can do to potentially slowdown that process?

DR. ELISSA EPEL: The good news is not that much has changed since we met five years ago. And Liz Blackburn and I wrote the Telomere Effect, which was the basic science and then the behaviors that help telomeres be stable and then the mental health stress. So, telomeres are these caps at the ends of chromosomes that are critically important to our longevity. And as we age and as cells divide, they get shorter. And for lucky in our 80s or 90s, they're getting too

short all the way back then or maybe in our hundreds, right? We want them to last that long, but they do at some point get too short, the cell can't divide, it dies, or it turns into a pro-inflammatory little machine creating disease states.

So, we really want to protect them. They're sensitive to what chemicals are in our body and we can create the healthy chemicals with lifestyle and with wellbeing, or we can create the toxic stress soup with chronic stress when we're not managing it. We don't step back and take breaks and take respite and really temper the chronic stress. It can just go on and on. It could last a lifetime that we don't realize that we're spending each day in this hyper aroused state and rushing and not noticing the beauty and the joy.

It's a big deal. We got to manage this better. Everyone feels too much stress. Most people, there are some people, we're going to talk about you, who've made it their job to build the healthy lifestyle and to keep balance and manage it. And it takes a lot of effort. But as you and I have been talking about, we can all do better with simple daily practices. We just got to find the right ones that we need.

SHAWN STEVENSON: Yeah, you can create your own little mini snow globe inside of the larger snow globe in a sense.

DR. ELISSA EPEL: Yeah, I like that.

SHAWN STEVENSON: What was the discovery that your co-author, Dr. Blackburn, she won the Nobel Prize for this particular discovery regarding telomeres. What was that?

DR. ELISSA EPEL: This cell aging system, it doesn't just shorten, it can actually lengthen too because there's a anti-aging enzyme called telomerase that she and her colleagues discovered about 30 years ago. And this enzyme is the thing that changes in the moment or within minutes. We can actually boost our telomerase. When I stress people out in the lab, their telomerase goes way up immediately because it's protecting the cell. It's like, hey, it's calling out, there's some danger, let's protect the genes. They are some of the most important biological materials to protect besides the brain. We don't want damage to our chromosomes. We don't want cancer. We don't want cell death, et cetera.

So, the telomerase protects the telomeres, rebuilds them. And we have found all sorts of lifestyle factors related to dampened telomerase, smoking, low exercise. And the good news is we and others have done mind-body interventions and have found that it can go up as well. So that's what it's looking like. We can increase our intracellular levels of telomerase and that is leading to sturdier telomeres in a dose response fashion. And if we keep that up, we are allowing ourselves to keep replenishing into those later years and renewing tissue.

SHAWN STEVENSON: That's so powerful. This technology really is existing within us to influence it either direction. And essentially, so what I'm hearing with this particular enzyme, we're really dramatically potentially slowing down the aging process of our cells. But here's again, one of those big triggers of burning away those telomeres is chronic stress. And I love this again, you unpack stress so beautifully to start the book off. And you said something I've never really thought about in this life before, but you stated essentially that we are oftentimes stressed because of the things that we care about. We care about these things, whether we're being stressed about our relationships, it's because we care about our relationships, work, the same thing. Accomplishing our goals. We're typically stressed by things we care about.

DR. ELISSA EPEL: It's a real flip, isn't it? So instead of hating it and thinking the stress is all bad, it's like, this is hard. We suffer because we love. We love people, we love nature, we see things that we want differently.

SHAWN STEVENSON: Let's talk about the landscape of stress today a little bit more. You touched on it a little bit, but if you could even within that, talk about our default stress baseline.

DR. ELISSA EPEL: The default stress baseline is big these days in the stress world. We're realizing it's not just when you're stressed that stress happens. It's actually it's there when you're relaxed and that's part of the big problem. Because that means it's sticking around, and it becomes chronic. So, rumination is one way we keep that stress arousal in our body. So, we think of red mind as the acute stress response and that's healthy and we need that, right? And then we recover from that, but how much do we recover?

So, the idea of yellow mind is that we spend a lot of time in this semi-high stress state and we think we're relaxed and we just go throughout our day with holding tension and vigilance. That's what we want to cut down on and see that, recognize it, recognize it in our body, do mindful check-ins. And the good news is while it sounds so terrible, we're talking about the toxicity of chronic stress, we can reduce stress within minutes. It's not rocket science. We just got to care enough and take the time out and be like, this matters, a break, a slow breathing break, a walk to see some urban greenery, that's sacred. We need that.

SHAWN STEVENSON: These are inputs. Our genes expect us to do these things. We were doing it forever and suddenly again, the landscape is very different today, where we even have to "go to nature" where we are part of nature too. It's just this really interesting insight that I had not too long ago because even as we're in this studio, we humans made this, if a beaver makes something, it's still a part of nature. If we build something, it's a building, it's so abstract.

DR. ELISSA EPEL: It separates us from nature, yeah.

SHAWN STEVENSON: It separates us. And so, it's this strange dichotomy that's taking place where, we look so sophisticated and there's so much innovation and at the same time, it's pulling us away from the things that got us to the place where we can do it in the first place, it's this very strange thing. And so, you talked about going from red mind to yellow mind and we think when we're not participating in a stressful event at the time that we're in recovery, which that's blue mind, correct? And we also think the recovery we can get with sleep, but even stress and being in that low battery mode versus the high battery mode, let's talk about that. Stress can even interrupt our recovery and sleep.

DR. ELISSA EPEL: Yes. It doesn't just go away when we sleep. We bring it with us. We drag it with us, right? And so, we want to sleep well. We want to be doing something in the day to bring down our baseline of stress arousal. And especially in that, maybe hour before sleep to really ramp down. So, there are ways that we can unhook from stress and clearly, the media, the phone, the work, all of the triggers of busy mind are part of this unconscious stress that we carry around. We might not realize it, but even having a phone visible, we know now changes our attention and we're multitasking what's in there. If I open it, something's waiting for me. It's just all of those subtle cues are taxing.

So doing things to get us to green mind, relaxed and blue mind, restored, restoration, rejuvenation, that takes just a little bit of planning. It's not like you have to go away on a week's long retreat, although that's going to do a lot for yourselves. But we need to unhook, and we need to feel safe, and we need to do something that's going to slow our breathing either directly or any mind body activity, yoga. I see your yoga mats out there.

SHAWN STEVENSON: At the studio we're about that life, that's so awesome. Also, within that context, I love this analogy again of, because it just brought it to life for me, the low battery mode versus high battery mode. Let's talk a little bit about that.

DR. ELISSA EPEL: This is just a bursting area of research. When I said there's all the telomere sciences is pretty much, hasn't changed dramatically. What's changed is that we know about all these other players in the cell that drive our aging. Mitochondria are a big one, epigenetic clocks, inflammation, all of these ways that our cells age are one system. And so, they're moving together, and they all tell the same story, which is that chronic stress wears them out. And so, with my colleague, mitochondrial expert, Martin Picard, we wanted to see if chronic stress was wearing out the mitochondria and no one has ever asked that. And it was pretty dramatic. We saw that the caregivers had lower mitochondrial enzymes. So that was the bad news about chronic stress. Not surprising, but it's a big deal. That means less energy, less vigor,

less vitality. So, no wonder we're exhausted, when we're dealing with pandemic fatigue, it's like, yeah, this is an energetic demand.

But the good news is that those were more daily positive emotions, particularly at the end of the day, had mitochondria that looked as good and powerful as the lower stress people. So, mood, positive emotions, joy, we know how to boost those. So, this is good news. We can boost those pretty quickly. Gratitude query. Turning to nature, it's different for everyone, but it's like, okay, we have at least probably 10 different established ways that we can boost positive affect within minutes. Kind acts to strangers, awe in nature.

We have a digital platform called the Big Joy Project. We can link people to that. And so, we give them seven different ways, one each day takes five minutes to boost your positive affect.

SHAWN STEVENSON: I love it. I love it. So we don't realize for the majority of us, again, just living this sophisticated, modern life that we're operating on high battery mode all day, just burning through our resources because something I experienced a little while ago was that decision fatigue, just like I was working on this project, all this stuff is going on and I could just see it happening that I'm just burning through this reserve that I have.

But then that can carry over. Again, we think that we're going to sleep mode, but that high battery, we're just burning through our potential. Whereas we could, with a couple of things, again, you highlight several of these in the book, but employing some things so we can shift over to low battery mode, so we're not burning through those resources as easily. And also, we're going to be able to adapt to stress a little bit better. Now here's the thing, because unfortunately, and this is important obviously, and you give credit to this, relaxation techniques matter, of course, but you talk about the fact that de-stressing using some of these conventional methods are quick fixes and often band-aids and don't really help you in the long term. So now let's talk about building stress resilience and actually healthfully managing our stress exposures. Let's start with developing the skill of uncertainty tolerance.

DR. ELISSA EPEL: Okay. Yeah. Yeah. I like to think of three buckets. I know we chop it into seven categories, but it's really about top-down, how are we viewing the world? How are we viewing a situation? And we can do a lot by little shifts in our mindset, then body up. We have this whole nervous system we don't use. We think we have to do all the mental work, right? And effortlessly control our stress. What about high intensity interval training? What about intense yoga, intense breathing, things that bring our stress up and then down. Those are a way that we de-stress and they're also good for aging. We think this slows biological aging and I can talk about some of the evidence for that. But the bottom line is that we want to use and can use the body more.

So of course, relaxation is one way to relax the body, but also these short-term stressors. So, top-down, body up, and then there's change the scene and that's what you were talking about. Getting into nature, taking a break from work, change the physical environment to one that is not full of stress triggers. Don't go walk in New York City down a busy street, it's going to help. You're walking, but it's full of potential stress triggers and you can't really feel ease, you've got to hold your pocketbook. So, you want to have a corner of a room or a room or a place outside that your body's conditioned to and you go there and you can do whatever it is that you've chosen, breathing, any of these body up things.

SHAWN STEVENSON: So, this is again, an ingredient in building, several ingredients in building our stress resilience, but there's an overarching change in our perspective that you talk about and uncertainty tolerance. Let's talk about uncertainty. What is uncertainty tolerance?

DR. ELISSA EPEL: It's so interesting because none of us talk about uncertainty tolerance, but it's really important in the mental health literature. So, when we are intolerant of uncertainty, when it makes us really uncomfortable and we tighten up, we all want to control the future and we want to know what we're doing tomorrow. We want it to go as we planned, right? But it doesn't work that way. There's inherent uncertainty and some of us are really good at being super tolerant and not trying to control. And that's a shift I've tried to make. The pandemic forced us to see we don't have much control and to write plans in pencil and go with the flow. So, when we can be more tolerant and embrace uncertainty, that is stress resilience. That's a big ingredient for stress resilience. And how do we do that? There are different ways, but one is just asking ourselves, checking in, right now, what are you holding on to?

What do you feel in your body? Are you tensing up and storing something that maybe is unconscious that you can name? What are you expecting to happen tomorrow or in the future? Because we're probably grasping at these things. And if we name them and name the emotions, we have around them, we are de-stressing in a way. What are you expecting right now to happen? And then when we realize, "Oh, yeah, I'm trying to control the future," that is a way that we can then say, "Okay, I don't." There's very little that we can control. And embracing the certainty of now in this moment is actually one of the antidotes of like, this is certain. This very near future is a time when we can feel safe, focus our attention, let our body relax.

SHAWN STEVENSON: That uncertainty, it's one of those things where it's an ingredient of life, of course, variety, uncertainty, whatever you want to. Even that, the way that we label it, can affect us. But you talked about how we all have a certain uncertainty tolerance level. It's going to be based on our upbringing, our family upbringing, our genetics play a part. It's based on our personality traits that we've picked up. And in particular, what really jumped out is based on our experiences in life can really influence our ability to tolerate uncertainty.

DR. ELISSA EPEL: Absolutely. So, we can help each other. I'm someone who grasps onto planning and controlling and using time as a commodity. And that's all-pretty type A and bad for the nervous system. So, I love being around people who aren't like that. Or remind me, let's not look at our phones and let's stop talking about this thing that we're not going to control the outcome of. So just those little reminders are ways that we can actually embrace uncertainty.

SHAWN STEVENSON: Yeah. I love it. You gave so many different great stories throughout the book to really bring to life these scenarios of somebody who has a low uncertainty tolerance based on something that might have happened to her when she was younger or something...

DR. ELISSA EPEL: That was my sister. She said I could name her, but I called her Cheryl in the book. Her name is Sharon. And she's been through a lot of traumatic events, and they affected her, and she has a big startle response. And I think one of my best examples of how she is trying to grab control and vigilance of scanning is, we all want to know when there's things that are not safe and she's been mugged. And so, she's looking... San Francisco is Gotham City these days. She has... We're doing worse than LA, I think, in crime, but she has an app that tells her about crime, and it tells her anywhere in the city where something's happening and, especially in close proximity, what a way to be vigilant. You're trying to get knowledge so that you can have some control and it's making you anxious. And we laugh about this a lot, but finally she got rid of the app.

SHAWN STEVENSON: Yeah, I remember that. I was like, why do that to yourself? But I get it, it's giving her a little sense of control, but it's something that's stressing her each time too.

DR. ELISSA EPEL: Yeah, it's like crime, crime, crime is everywhere at any moment. And if you want to know anywhere in the city, you can see a map.

SHAWN STEVENSON: That is bananas.

DR. ELISSA EPEL: I think so too.

SHAWN STEVENSON: But it's also, you just said Gotham City, a lot of folks is disparity with the governor being like Batman, Bruce Wayne vibes. Anyways, but it's so wonderful to understand, yes, we have this uncertainty tolerance, but we can change it. You shared this great study, and this was a study that you conducted with some colleagues on women who had never meditated before, split into two groups at a luxury resort. Can you talk about that study?

DR. ELISSA EPEL: I love that study and there are other retreat studies that show similar things. You asked about, how is toxic stress getting into the skin and causing disease and I think inflammation is a main highway of how it does that. But we can now look at all the different biological pathways with gene expression. And so, in this study, that's what we did. We measured everyone on day one when they arrived and then what their cells were doing on, close to day seven. And what was so amazing is that there were such dramatic changes in what our cells were producing. The DNA read out was different. Different genes were producing different proteins because the stress response and the immune response thinking that it has to fight things were turned on very, very low volume. So very low activity there in all of those, vigilant fighting modes that our body things have to be on, in urban living they're probably on pretty high. So, at the end of the week, those were really low and then we had more of these restorative genes, telomerase, mitochondria, growth factors.

SHAWN STEVENSON: You would think again, these outcomes might be obvious, but what was really jumped out as far as the outcomes, number one, so you've got obviously going to a luxury resort for a week is going to feel good, right? And you're articulating...

DR. ELISSA EPEL: Everyone felt great, whether they meditated or not.

SHAWN STEVENSON: Right. So, we got to win here, but long term though.

DR. ELISSA EPEL: Yes, exactly. That was the point, Shawn. Short term, both groups showed 60% reduction in stress, depression, increases in vitality and mindfulness. I was like, I never see this much change, this is a real privilege and treat. If people can unhook and afford a retreat for a week, that's the peeling the layers of the onion, right? But the meditation group didn't look too different in the short run. They did look different 10 months later and their depression stayed low. So that was like, okay, this is a building a skill that over time is going to promote stress resilience.

SHAWN STEVENSON: So powerful, so powerful. So again, we've got folks who were embarking on, again, these are people who are new to meditation, picking up this skill set and having these results that are comparable to just relaxation, going to this luxury resort and the biggest benefit was they were able to keep that skill set and basically change the way they perceive stress essentially.

DR. ELISSA EPEL: I think that was it, Shawn. I think it was the change in the mental filter because a small percentage of them kept up the mantra meditation. Deepak Chopra was the teacher. They loved it. Some of them kept it up, some didn't, but as a group, they still benefited. So, there's these ways that you shift mindsets of thoughts are just thoughts and maybe this idea of not trying to control everything that goes along with Buddhist philosophy. But even

Buddhists get stressed, they have beautiful philosophy and ideology and part of it is this idea of causes and conditions, what we can do now in this moment is different than being attached to outcomes. So, they try to stay unattached to outcomes and they still get stressed. I guess, my point is its work. We can all try to adopt that mindset, but we've got to remind ourselves of that and we can do that for other people too.

SHAWN STEVENSON: Yeah. And I think that's what really, when we look at folks who are Buddhist monks, for example, what we're really seeing, we're not seeing that people that are incapable of experiencing stress. We're seeing people who maybe are better at remembering their ability to perceive stress differently and to manage stress and to employ things. And so that's really the gift for all of us is just working on remembering because any of us can forget and just get immersed in stress. But if we can remember, oh, wait a minute, let me breathe. And even through the book, you kept bringing me back even to breathe.

DR. ELISSA EPEL: I pointed to you. Yeah. So, with all of your phenomenal knowledge and constantly learning, I'm just so pleased you like the book, but where is stress in your life? Is it something you're actively managing and it's down here or is like, did you find a tip there that fit into your life and you hadn't done? If you don't mind my asking.

SHAWN STEVENSON: Of course, for me, you gave language to a lot of things that I experienced. So, I love things like that. It's an internal revelation like, oh yes, that makes sense. And in particular, even just talking about that study with the women going to the luxury resort, I've done that. That's great. And it's like, again, huge privilege to be able to do that. I never met anybody in my entire life that had done anything like that. My grandmother, when I was a kid, I think maybe I was 10, her and my grandfather went to Hawaii one time and it was just like, she went off planet to me. It didn't make sense, right? But other than that, I never experienced seeing anything that to just like... And so that's one thing.

But the other thing was my life changed in how I associate with stress when I learned meditation from my mother-in-law, maybe 16 years ago now and it changed everything for me. I have this substantial space between stimulus and response now and I live in that. So, I'm very unlikely to be the person who's going to overreact in a situation. And if I do start to see the overreaction come, I immediately see it, oh, overreacted. And so, for me, the big thing is, I'm showing up better for the people around me. And so, it is a more of an encouragement and catalyst. And I like the way that I feel because one of my favorite parts about the book is you articulated how the sense of control can lead to better health outcomes, but too much control can lead to more dysfunction.

DR. ELISSA EPEL: Yeah. Trying to control too much. Exactly.

SHAWN STEVENSON: That's often uncontrollable. Right?

DR. ELISSA EPEL: Yeah.

SHAWN STEVENSON: So, having that sense of control, but it's not external for me. It's internal. So that's really what was one of the most beautiful revelations reading that I've done this even though I hadn't had the book in my hand yet, the pieces, but...

DR. ELISSA EPEL: It's a beautiful description. And this change that you had and getting that space between what's happening out there and how you're reacting, is that something that's a habit now or do you need to dive into meditation every once in a while, to re-install the mindset?

SHAWN STEVENSON: Oh man, this is such a good question. Nobody ever asked me questions, so this is so interesting. Just in the last year or two, and I've shared this with my team, I've meditated less than I have in the last 15, 16 years. My first year meditate, I meditated every day without fail. I'm talking generally 30 to 40 minutes every day. And I really believe that the meditation was the thing, that was the connective tissue to me living the life that I wanted to live. But my life had changed. I was bringing that with me into the world. I didn't need to just shut everything down and to just go into that space. It was, I found many spots throughout the day to be mindful. So that's what I really experienced the last year and a half is these mini spots. I don't have to have this structured practice anymore, which is great. Now, there are times when I definitely need to do that and I go there, but I found more spots throughout the day in more creative ways. It just feels good to go for a walk by myself. You know what I mean?

DR. ELISSA EPEL: Oh, I do. I have to say what you described is really the developmental goal for all of us. We want to get to the point where we live it. We can step in and out of busyness to become mindful, to slow down or within busyness to have our meta-awareness on and think about how we're connecting with others and maybe reacting. And it's this observational skill that if we don't have that ability to step back and look at our thoughts and our mind, we can't really do any of that. So, there's always this moment of breathing at the end of each chapter like get grounded and now look inside and try this. And so, I didn't use the word mindfulness throughout, but they all bring us to start with breath and checking in with our body because we can't really do anything until we do that. And then we can try some of these new things. So, the informal mindfulness is what's the real buzz in the mindfulness literature. Can we get to the point where we're living it, not just having a monk-like meditation with a big chunk of time every day.

So that is what we can all try these moments of meditation. That's really what's being promoted now in the meditation field. But I do think that starting with the base that you had

where you really trained your mind in, I will call deep rest states, blue mind is so helpful. It's a good foundation to live from.

SHAWN STEVENSON: This is so cool because I literally... What I'm about to say, I've not shared with anybody, but I was just thinking about, I had a big workload, working on this big project and I love it, but it is a laborious process and just being able to, as I'm doing it, just like, how's this making me feel? There's this inquisitive thing and I've never vocalized the words, it might not necessarily be words, but it's a check-in, how's this making me feel? What do I need to do right now? Am I over-exaggerating stress? And there's just this matrix of data that I am sharing and accessing back, and it helps me to, again, to switch to that low battery mode when I need to, if that makes sense.

DR. ELISSA EPEL: Absolutely. Yeah, we can be burning on high battery mode and not aware of it, but the metacognition that you're describing, that ability to step back and look in. It's like going from a two-dimensional world where we're just seeing... We think everything's real, and we get threatened really easily to three-dimensional where we're above and we can look down and check in and say, in this moment, how is this mind-body reacting and what does it need? And I love how it can help with creativity and innovation and that threat mindset, that rules out creativity, innovation, connection.

SHAWN STEVENSON: Yeah. Silly us.

DR. ELISSA EPEL: Silly us and we can't help it. It's tragic, right?

SHAWN STEVENSON: Yeah.

DR. ELISSA EPEL: Yeah. But we can with some prioritizing it, making it important. It's called The Stress Prescription because it's as important as taking some medical drug we need. We need to manage stress, otherwise we're just flooded.

SHAWN STEVENSON: Yes. Got a quick break coming up. We'll be right back. No lifts, no gifts. Here are just a few benefits of building muscle seen in peer review studies. Building some muscle mass can significantly improve your insulin sensitivity, improve your overall hormone health, improve your cognitive performance, improve your immune system, protect you against injuries and speed recovery, and defend your body against age related degradation. This is just a small slice of what a little bit more muscle can do. Now the barrier of entry to building more healthy muscle and reaching a state of physical fitness is easier than ever. Having a few key pieces of equipment at your house can absolutely change the game for you. Kettlebells, steel clubs, maces, battle ropes, all of these phenomenal multifaceted pieces of

equipment are readily available to ship directly to your door. Go to onnit.com/model and you're going to receive 10% off some of the most premier training equipment in the world.

Simple piece of equipment that you can do dozens if not hundreds of different exercises with, plus they've got incredible programs as well to teach you different techniques for unconventional training to truly create more functionality in your health and fitness. On top of all that, Onnit is also one of the world leaders in human performance nutrition. They've got the most remarkable pre-workout supplements and post-workout protein that you're going to find, all sourced from earth grown ingredients, nothing synthetic. They also have put their own products into real world clinical trials to affirm their efficacy. Again, go to onnit.com/model, that's O-N-N-I-T.com/model for 10% off everything they carry. Now, back to the show. Another part of The Stress Prescription is this section is “be the lion”. Why is this a part of our stress prescription?

DR. ELISSA EPEL: So, we've been talking about the stepping back and not reacting and having those moments when we can actually really feel ease, are your hands clenched? Are your brows furrowed? That checking in. But we can only do that when we are not engaged in the moment in a really stressful thing. It's easiest to. But when we are approaching a stressor, leaning up to it or in the middle of it, that mindset of be the lion is a positive stress response. So rather than, if we're telling ourselves, I feel my heart beating, this is terrible, I'm not going to cope well, I'm feeling fear, all of that really fuels the threat response, the cortisol response. And we all know what that feels. It feels terrible. So that's going to happen, but we can also try to interrupt that process and move from that frightened gazelle to the lion by saying different things to empower us.

And they are things I've heard on your show, you've talked about mind hacks, and they really are empowerment statements. Our body believes what we say to it. And so, if you're going in and saying, I got this, I have what it takes, I've been through this before or anything that takes away the threat, and I can only do as well as I can, and if I do poorly, is this really going to affect my life in five years? There's a lot of options of what we say to ourselves, so finding what it is and using it in the moment to be the lion, that's helpful.

SHAWN STEVENSON: Yeah. Unlike the lion and gazelle scenario, where it's just like one or the other, as a human, we get to choose how we're perceiving things and how we're reacting to things. And so, with that said, if we're coming into our life conditions and we experience a victim scenario, a gazelle scenario in our life, we can start to have that as our baseline, right? Which you shared in the book, Dr. Stephanie Mayer, and she's at USCF. She found that people with early childhood trauma do in fact have exaggerated threat appraisals of their daily stressors, which then contributed to depression. But she did a follow-up study providing them

with mindfulness exercises and found that that improved their stress response. They became more lion-like by having these skills.

DR. ELISSA EPEL: Yeah, we got to have some help. People were buzzed in the day, so in the moment, you get to have a reminder. That remembering, that's so important. All this knowledge doesn't help unless we're able to experience it in the moment and try it. So, it's an exciting line of work that she and others are doing to help people with this exaggerated stress response by checking in right at the moment and using some different strategies. And so, some are muscling it, reframing things in a positive way and saying things that empower you. And some of it is letting go, the acceptance.

And so, we might react automatically with that threat response because we're wired that way or we had a lot of early childhood adversity. And that's the first response, but things don't have to end there. You don't have to stew in that and have slow recovery. You can actually have some... You can step in, and you can have self-compassion and you can actually say something to yourself that you would say to a dearest friend, a person you love in that moment. And things like, this is a universal response. I'm not the only one feeling this way. This is natural. This is how my body responds. And that kindness and letting go, this is how it is right now, but this will pass. So that lying mentality is one option, but also that kindness, compassion and riding the wave is another way.

SHAWN STEVENSON: Yeah. Oh, man. We need this right now because I think again, one of the biggest issues with our association with stress is we don't really realize that because stress is invisible in a sense, we don't realize the impact that it has on our cardiovascular system or on our metabolism, right? Stress is calorie free is something that I say, but it can deeply alter the way that your body is associating with food, right? Associating with the calories that you're consuming. And as you know, from your research, this can put us in the states or nudges in the States where we're more likely to experience disordered eating or experience insulin resistance or gain weight, right? So, a lot of folks today, there are tens of millions of people in America alone that are on diets right now trying to lose weight, but we discount how impactful stress is on our metabolism.

DR. ELISSA EPEL: Oh, Shawn, I'm so happy you're saying this to your large audience because we can't remember this enough. It's so important that it shapes what we eat, how we store fat and our risk for diseases, not just diabetes, but all diseases because they're so related to insulin resistance and inflammation. And so, I couldn't agree more, and I've been excited to tell you about a new study. So, we've been working on this nexus, the emotional eating, with trying to help people with stress reduction with using mindful check-ins and mindful eating, really checking in and seeing how hungry we are. Because the compulsive eating is so hard to live with compulsive drive to eat, right? It takes up a lot of mental space and it leads us in the

moment to impulsively overeat or make choices of comfort foods that we know are the wrong thing, but boy, do we to over consume them in the moment, right? They're calming to the brain for a very short period, and they lead to the abdominal fat. So, in this study, we enrolled women who were very high stress, tended to be low income and they were all early in their pregnancy and overweight.

And so, they're at really big risk of excessive weight gain. And we know that intervening in pregnancy could be really powerful. Everyone's just trying their best. They're really motivated for their baby's health. So, we taught them mindful eating and mindful stress reduction and some nutrition. And I'm grateful for you for educating the public on nutrition because it turns out that even the fundamentals, a lot of people really don't realize. And so, what we found was that, well, the big news was that at the end of the eight weeks, they were so much less depressed and stressed than the control group.

That was great. Their glucose tolerance was better. So, during pregnancy, we take an oral glucose tolerance test, and we see how insulin resistant we are and maybe we have impaired glucose tolerance and that means a real risk of diabetes. So, the control group got some of that, a lot of impaired glucose tolerance and high insulin during pregnancy. But those who were meeting in a group and learning some mindfulness had better glucose from that sugary drink that they had. They actually had better insulin sensitivity. Then here's the big news.

So that's exciting because we think it's going to help the babies and in fact, my colleague, Nikki Bush, has published many papers how the babies are more stress resilient and are going to the doctor less. So, we know that this intervention during pregnancy when the baby's developing, mom's feeling less stressed, baby's coming out healthier with a less reactive nervous system. Eight years later, we just published the follow-up and found that the moms are still less depressed than the control group. And so, it's what you were talking about. What you've done, learning meditation over a decade ago has changed your brain, has had neuroplasticity. These moms, we were quite amazed because it was only eight weeks, but they were left with an imprint of stress resilience.

SHAWN STEVENSON: Amazing. And we pass that down to our offspring as well. There's some really fascinating studies. We'll put one up on the screen for everybody in mouse models and seeing how traumatic experiences are carried over and the adaptations for our future generations, but also providing the baby mice, offspring within "enriching environments" help them to nullify that experience of stress and that adaptation that's basically declining their health and then they're passing on healthier outcomes to their offspring.

DR. ELISSA EPEL: Absolutely foundational work. Just mind blowing both about how we transmit risk, but how we can mitigate it, how we can help people live well even though they've inherited some trauma and stress in their epigenetics or in other ways.

SHAWN STEVENSON: Yeah. And I love this because, we have these terms that are passed around like generational trauma for example. It might sound a soft science or soft belief, but to validate these things, we really are this conglomeration of our ancestors. It's not just these hard line, physical characteristics. There are emotional characteristics. There are personality traits. This information, it's information, right? And again, information isn't all tangible. These are things that we know this, we know that our genes can affect our emotional health for example. We know this, but do we really get in the fact that we can pass these things on? And here's the good news. We can pass on higher order traits as well if we become aware. And so that study is so powerful. And so, my mind is spinning right now in the implications this has for basically helping to create a healthier generation of humans.

DR. ELISSA EPEL: Yeah. We're excited. We're hoping that there'll be uptake, there'll be dissemination because all the women who are pregnant, they don't have access to groups like these group support or group mindfulness. And we think it's powerful. We think the group is part of the secret sauce because that's how we are. Social mammals, we are so much... We get so much out of sharing with each other and seeing ourselves in other people's eyes.

SHAWN STEVENSON: Yeah. So powerful. And this is going back to how we see ourselves as well through our perception. I think one of the biggest takeaways for me and I think for everybody as well is changing the way that we see stress, right out of the gate you were saying, hey, stress is normal, natural, it's even helpful. So, let's not go too far down the stress is bad, we need to get rid of all stress, that kind of scenario. It's really about how we're seeing stress. That is a top-down thing. It changes everything. And so yes, we can build our stress resilience and we're going to talk about that in a moment. But one of the most important takeaways from today is changing how we associate with stress. Simple changes even in our internal language. When we're feeling stressed, this is making me more resilient or I'm made for this, my body is amazing at processing stress.

DR. ELISSA EPEL: Yes, exactly. That stress response is healthy. The acute stress response, we are evolved to have that, optimize our performance, and then recover quickly. And if we remind ourselves of that with those statements, this is energizing, this is giving me oxygen, this is good for me, this is going to help me cope, we make that come true more. Yeah.

SHAWN STEVENSON: Yeah, because our cells are listening to us.

DR. ELISSA EPEL: Exactly.

SHAWN STEVENSON: So now with that being said, we can build up our baseline, our baseline stress tolerance. And you talk about this in the book, training for resilience is a part of The Stress Prescription. Let's talk about that.

DR. ELISSA EPEL: Well, you must have loved this section because this is everything you do, it's both the fitness plus other ways that we increase our health. So even the antioxidant diet and the super nutrients you talk about in your book, some of those are actually creating a hormetic stress response in the body. So, they're some of those chemicals protect plants and so they're a little bit of a toxin, right? So, we know that relaxation and restoration and deep breaths, those are precious.

We also know that we can handle short bouts of stress and in a way that can be really good for us, both in terms of our emotional growth and coping, but also for our body. So, exercise is pretty much the best thing we know about for everything, mind, body. And we typically think of endurance exercise, and you need 45 minutes, three times a week, et cetera. But it turns out that those short bursts during high intensity interval training are more closer to what we've been talking about, about the positive stress of the body.

And so, when we do HIIT, for example, we are creating this positive stress state, the spikes and the recovery, and it turns on all of this anti-aging machinery like autophagy, it's boosting mitochondria. So, we knew that about exercise, but now we know that the short bursts are also as good as the endurance exercise in many ways that we've measured so far for metabolic health, for cell aging, and maybe even better for cell aging because they're really turning on the restorative cleanup crew in our cells.

Now, there are other ways besides exercise. Some people might have disabilities, they might be in a wheelchair, there might be reasons that they can't do aerobic exercise. And there are other ways to create that short-term positive stress to the body. And I call that stress fitness. So, it's not aerobic fitness, but it's ways that we're conditioning our nervous system, get used to stress and relaxing into the discomfort of stress. So, what do I mean? I think the two obvious ones that are picking up and some of your audiences are already doing them, hot and cold. Sauna, really heat our core body temperature, hyperthermia, that does great things for health, but also for mental health in the brain.

It's looking like it can help with depression and even resistant depression, chronic depression. So that's an active area of research. And cold, cold exposure, less studied. We know less about its effects on health, but it does look like that is also one way of creating that short-term stress to the body and then the ease and relaxation in the mind. We've done a study on comparing this Wim Hof method, so cold exposure and extreme breathing, to more relaxing conditions

and to HIIT. And they all help with stress and depression equally. So, it's so nice. There's all these different ways to get there, but people should know they have choices and they should do what they're going to continue to do that they don't hate.

So cold showers is something I hate. I will choose Sauna when I can, but I will do 30 seconds of cold. And then part of the training for stress resilience is rather than tightening up even more and go uh, because the immediate response is to have a stress response, relaxing into it, relaxing into the discomfort. And that's the challenge where you're mismatching the mental state to the physical stress so that the physical stress is purely physical, it's not psychological.

SHAWN STEVENSON: Oh, it's so good. So again, there's many paths to the goal of improving our stress resilience. We can pick our own flavor, what we feel a connection to, of course, challenge yourself. I always encourage people to experiment. Of course, find out because how would you know about the cold exposure? Because a lot of people would never in a million years think that they would enjoy that. They're the biggest fans of it, and being able to just, again, it's micro dosing stress in a sense.

DR. ELISSA EPEL: Interesting. Yeah.

SHAWN STEVENSON: And when you mentioned high intensity interval training, well, again, all of these having these great health outcomes with stress resilience, when I think about the ability to push yourself, to challenge yourself, and then to recover, you're proactively stressing yourself. It's a hormetic stressor, right? But you're also giving yourself the opportunity to relax. Right?

DR. ELISSA EPEL: Yes.

SHAWN STEVENSON: And it's just a logical thing that this would build your stress resilience.

DR. ELISSA EPEL: Yeah. And you're in control.

SHAWN STEVENSON: Yes. Yes. So, this will be considered like a safe stress.

DR. ELISSA EPEL: Yes. Exactly. That's really important.

SHAWN STEVENSON: Yeah. So cool. So cool. And there's countless ways to embark on high intensity interval training. And this is the great thing is so much of what you're sharing is free and accessible if you have a body. And so, this could be obviously doing some sprint, some stationary bike. This could be doing burpees. This could be doing any number of things that get your heart rate elevated. And do that for a segment. Maybe it's 20 seconds and recover for

a minute. Or 30 seconds, recover for 90 seconds. Whatever. There's so many ways to slice and dice it. The question is, are you taking advantage? What would be, do you think... What if we do that once a week? Would that be something?

DR. ELISSA EPEL: Great. I think it's great. And we don't even want to do that every day, it's too intense. So, two times a week, maybe three. For people like me, I'm not on the extra. I'm on the moderate to mild end. And I find it makes a big difference. I'm not going to do... I'm never going to reach extreme fitness like a lot of your amazing audience. But these things have ripple effects on mood and on sleep, even if you do them once or twice a week.

SHAWN STEVENSON: I love it. I love it. So, as we come to the close here, just closing our days, you talk about, again, bookending it with joy, start and finish. Let's talk about that.

DR. ELISSA EPEL: Yeah. The emotional well-being and happiness literature are really fascinating and clear. And if we're directly seeking happiness, we probably won't find it. And those are some of the people who are most unhappy. If we are waiting to be happy until something happens, we reach this goal or we get this, we achieve this, that is also not a good formula for happiness. And it turns out that when we can see things right in front of us that we're grateful for or that make us happy, when we can notice them and appreciate them and savor them, that brings daily happiness. And so, we can use that. We can use that when we wake up. We can use that when we go to bed. Just asking... We can use it at the dinner table. Is there something that happened better than you expected today? Is there something you're grateful for? Is there waking up and just asking, what am I looking forward to?

What gives me meaning today? And it can be the small things, making someone smile, doing something kind, accomplishing something that fits into your North Star. It's accessible to all of us. It's just a matter of asking ourselves and noticing. And it's those nudges, those bookends to the day that are helpful to both set us up for a positive trajectory instead of waking, believe me, I do this waking up with a to-do list and adrenaline. It's like just wait a minute. Let's have a positive boost of emotion and energy. And that's the opposite of that, getting on high battery mode and burning up energy and feeling exhausted because that joy is energy. It's energizing, especially when it's in dialogue with someone else.

SHAWN STEVENSON: Wow. And again, we have this accessible to us at all times. And we don't have to try to proactively do that all day. But if we can just bookend our day, start our day with that, a dose of joy, end our day with a dose of joy. It's another thing that's a part of the stress prescription for a reason. It makes us more resilient.

DR. ELISSA EPEL: Exactly. And if you can't think of things, just we can ask ourselves in a gentle way and brainstorm answers and ask again if we can't think of anything, but what brings you

joy? What brings you joy? Over and over. And it's those little things that we'll think of that we maybe haven't noticed. Pets come up often, coffee, a hug in the morning, all these little things that really are love, really are meaningful. And same with vitality. What brings you vitality? What drains your battery? What people? What situations? And what energizes you? Those are some clues.

SHAWN STEVENSON: Follow the clues. I love it. This is so awesome. Thank you so much for hanging out with us and sharing your...

DR. ELISSA EPEL: It's such an honor and pleasure. Thank you so much, Shawn, for your amazing work and for hosting me. And I'm so pleased that you got something out of this book because you're someone who knows everything.

SHAWN STEVENSON: That means a lot coming from you. Thank you. Can you let everybody know where they can pick up, *The Stress Prescription*, your new book, and also where they can follow you.

DR. ELISSA EPEL: So, the book is out now. I'm so excited. It's available anywhere books are sold, Amazon, Barnes & Noble. And then I'm keeping an updated resource list of the apps, the meditations, the books that mean most to me. And so those resources are all on my website as well as retreats. And that website is just simply myname.com. So, it's elissaepel.com.

SHAWN STEVENSON: Wonderful. You're the best. Thank you so much again for coming out and hang with us.

DR. ELISSA EPEL: Thank you so much, Shawn.

SHAWN STEVENSON: And thank you so much for truly putting your life force. I love, and I've got to ask you this as well, you creating this book right now at this time and you were even sharing a study that you were conducting throughout all the pandemic shutdowns and all the stressful scenarios that were coming your way. And it was like an inception type thing as I'm reading the book. It's just you're doing the things that you're talking about in the book and the timing of this book. Did you know when you wrote this book that all of this stuff was going to be happening in the world?

DR. ELISSA EPEL: So, the idea came before the pandemic and it felt like, ah, we need a book on stress. And of course, I wrote it during the pandemic and I was living it all with all of us and using these techniques and needing them and then teaching them to our own frontline providers at the medical school. And so, it's all been very much alive. We have a pandemic website we built that's had a million visitors of just little videos of every problem you could

have, mental health problem, child, parenting problem. And it was amazing to have the world now appreciate how important mental health is. And if we can't manage stress, these unbelievable rates of depression and anxiety are just going to get worse.

SHAWN STEVENSON: Yeah. This is, we can do something about it. And this is the time. So again, thank you so much for hanging out with us.

DR. ELISSA EPEL: Thank you.

SHAWN STEVENSON: Dr. Elissa Epel, everybody. Thank you so very much for tuning into the show today. I hope you got a lot of value out of this. Please share this out with your friends and family. Take a screenshot. You could share this on social media. I'm at Shawn Model on Instagram and also on Twitter I'm at Shawn Model as well in the Twitterverse and I pop in there from time to time. And if you're on Facebook hanging out, I'm at The Model Health Show.

And this is such an important topic because being that stress is invisible by our general sense of things, we don't really understand the impact that it has. And a lot of our stress is self-generated. It's based on the way that we're perceiving the events in the environment. Yes, there are stressful things that we're dealing with in our world today, but for us to show up as our best self, for us to be able to handle the challenges that we're facing, we tap into more creativity, innovation, and resilience when we start to perceive stress in a more healthful fashion.

So again, that's why this topic is so important and one that we definitely need to do a lot more research and education about. Pick up The Stress Prescription. It could be a helpful manual in this mission. And we've got some incredible guests and masterclasses coming very, very soon. So, make sure to stay tuned. Take care. Have an amazing day. I'll talk with you soon.

And for more after the show, make sure to head over to themodelhealthshow.com. That's where you can find all of the show notes. You can find transcriptions, videos for each episode. And if you've got a comment, you can leave me a comment there as well. And please make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome. And I appreciate that so much. And take care. I promise to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.