

EPISODE 376

The Surprising Science Of Stress - With Guest Dr. Rangan Chatterjee

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Shawn Stevenson: Welcome to The Model Health Show. This is fitness and nutrition expert Shawn Stevenson and I am so grateful for you tuning in with me today.

It's a very special episode. We're talking about a topic that does not get enough attention in the media and even in the health space itself, but that is changing and it's changing rapidly, thanks to guests like we have on today.

This is something that I saw in my practice for many years and this was something that really dedicated me to helping to address this issue.

Because oftentimes folks were coming in and we were getting some pretty good progress with their nutrition and their movement practices, but there was a certain percentage of people that no matter how well they were eating, no matter how their exercise regiment looked and the consistency there, they weren't able to reduce their blood pressure and to get off their Lisinopril or whatever medication they might have been on, or get their blood sugar regulated and dealing with insulin and Metformin and cases like that and working alongside their physicians.

It was just something that really bothered me a lot, they're doing so well with their diet and their exercise, what's the missing piece? And so even though it took me a few years in practice to finally start to ask people about their lifestyle, like their stress, their schedules, their sleep.

And some of the things people shared really started to just blow my mind, it's just like how are you even getting by, how are you even doing as well as you are with the amount of stress that you're carrying.

And a little do we know that we can overeat our way into being overweight, we can under exercise our way into being overweight, but we can also stress our way into being overweight.

And we're going to be talking about some of the reasons why here on this episode today, our stress response system is incredibly valuable and it's something that we need, it's something that helps us to live and to be able to thrive in the world.

However, when that stress response system is hyper-stimulated and overactive, we all heard this before, like cortisol has gotten a really bad name in modern media, right, but cortisol is not bad, we need cortisol, we get a nice brew, like the coffee brew is going in the morning on that cortisol coffee pot and it's ready in the morning to get you up and get you going.

But when cortisol is being produced in overwhelming amounts and that coffee pot is just overflowing and spilling out all over the counter, somebody has got to clean that up. All right, number one but also if it's produced at the wrong time. Maybe it's not a good idea to be having a cup of coffee brewing at 1 o'clock in the morning, right.

So that's where cortisol can be a problem, but we need cortisol. But what cortisol can do, one of the things that's really interesting is that it has this unique ability to actually break down your valuable muscle tissue.

Cortisol can break down your muscle tissue and we know that muscle is your body's fat-burning machinery, in many aspects. When you are hyper stressed or chronically stressed cortisol can break down your muscle tissue, it's a process called gluconeogenesis and turns your body's protein machine, your muscle, your fat-burning machinery into sugar, which then can stimulate even more cortisol more of cortisol response.

And so this can become a very negative feedback loop and so I just want us to understand just a little bit of the science behind how stress can affect our body composition but it can also affect our sleep quality, it can affect our mental and emotional well being and how we're responding in our relationships.

Stress is something that is very real and the reason we don't think about it often is because we don't necessarily see stress, right? We can't see it, it's this invisible entity that's enforcing this kind of pressure upon our lives. But it is very real.

And we can see this show up in our blood work, we can see it show up in how we're monitoring what's happening with our brain activity and even when we're asleep. So just because we don't see it, it doesn't mean that we can't measure it and definitely it doesn't mean that it's not real.

And so today we're going to be talking about the stress solution. And we've got one of the foremost experts in the world on a subject matter, here on the show, for you to dig into the subject matter.

And speaking of modulating and dealing with the stress in our lives, and I mentioned earlier it jumps to mind this coffee pot example, right. Coffee is a big thing we turn to as a coping mechanism for stress because stress can also make us exhausted.

So we turn to the coffee and then it hyper stimulates the stress response system, we feel better for a while but then we need more of it. So it's changing our relationship with coffee and, by the way, I just saw a study that upwards of 90 percent of the population regularly consumes some form of caffeinated beverage.

What? I didn't know it was that many people who enjoyed coffee and/or caffeinated teas, but wow, that's really, really interesting.

And so, me saying don't do that is just silly, this is something that humans have a resonance with, but I think that we can do it better.

We can upgrade our relationship, upgrade the quality of the coffee or teas that we're drinking and not hyperstimulate and push that caffeine button-down by going to crackbucks— no offense, and getting that conventionally grown, pesticide-laden moldy, whatever brew, all right. I'm sorry if you're drinking some right now but just it is what it is, we're getting a piping hot cup of pesticides along with our coffee.

So at least upgrading it, let's get organic coffee, let's balance it out with these incredible mushroom coffees, right.

We've got organic coffee along with some medicinal mushrooms that help to balance out the effects it has on our bodies because coffee is also an acidic substance, which, this is getting into the whole conversation of is it acid forming the body, does it make your body acidic, it doesn't work like that with these acids in alkalines, acids in bases.

Your body will always compensate and balance things out to keep its PH in the different organs. But the thing is when we are consuming a hyper acidic diet, especially coffee is pretty acidic, it can literally start to leach minerals from your system to balance things out and leave us deficient.

And the thing about these medicinal mushrooms is that many of them are very alkaline and so in and of itself, in that kind of basic science we talk about in biology with acids and basis, that's pretty cool in and of itself. But let's take this a step further. Listen to this: today I had a cup of Cordyceps coffee and here's why.

This was a study published in Phytotherapy Research and it found that Cordyceps medicinal mushroom can literally improve brain function and elicit antioxidant enzymes that help to protect your brain and also can help with libido.

All right, so I'm just throwing it out there, all right, that's not the reason I was sipping it but that's a pretty nice bonus because it's a natural encouragement and support of your antioxidant systems and also your circulation.

So Cordyceps medicinal mushroom has those properties and actually, here's another study that I came across as well and it found that Cordyceps has the ability to literally protect your mitochondria, alright, protect your mitochondria, this is the energy power plants within ourselves that create the energy currency of ourselves.

Cordyceps have been found to protect these ancient bacteria that have integrated with our own human cells that give us energy. Wow. All right, so it's more of a natural, calm, balanced form of energy that I get from the coffee versus what we get with conventional coffee.

And this is why I'm such a huge fan of the mushroom coffees from Four Sigmatic, and this is the only ones that I use because it's dual extracted, meaning you actually get a hot water extract, alcohol extract to get all of the goodies that you want, that you hear about in studies like this, what extraction method was it?

And we know that we're getting all of it from Four Sigmatic, so head over there, check them out, it's foursigmatic.com/model, that's F-O-U-R-S-I-G-M-A-T-I-C.com/model, you get 15 percent off everything they carry, their mushroom coffees, mushroom hot cocoas, mushroom

elixirs if you're not a fan of hot chocolate and things like that so you can get them straight and they're amazing.

Pop over there, check them out, foursigmatic.com/model. And now let's get to the Apple Podcast review of the week.

iTunes Review: Another 5-star review titled An excellent smorgasbord of guests by Max Slater 412. "I love listening to this podcast. Shawn always finds people with such a great outlook on physical and mental health."

Shawn Stevenson: A smorgasbord— I love it, that's one of the words it just feels good saying it, so thank you so much for sharing that review over on Apple Podcasts, I appreciate it so very much.

And listen, if you've yet to do so, make sure you pop over to Apple Podcasts, leave a review for the show. And I just saw some of the metrics recently on how many tens of thousands of new listeners we have listening to the show that are not yet subscribed to— push the subscribe button, subscribe to the show on whatever platform you're listening on and if you're watching this on YouTube as well, subscribe, you don't want to miss a thing.

And especially, right now today, this is going to be pretty epic and I think you're going to love this a lot. We're going to jump into our topic of the day and our special guest.

Our guest today is Dr. Rangan Chatterjee and he's a pioneer in the emerging field of progressive medicine. And this is a physician who is one of the leading voices in lifestyle medicine that is really a movement right now and changing the way that we look at illness.

And he's known for finding the root causes of people's issues by taking a broad approach to health and wellness. And this is highlighted in his groundbreaking BBC TV show incredibly popular, called Dr in the House, and also his internationally bestselling books.

And we've got him here, in the studio, straight from the UK and we're going to jump into this conversation with my friend Dr. Rangan Chatterjee.

You made a really interesting transition yourself from having a general practice to writing books, TV shows. What was the catalyst for you to want to do those types of things versus just doing the kind of day to day conventional practice?

Dr. Rangan Chatterjee: I think there's a number of things which happened to me. The one that's really relevant to that question I think is— look, I was kind of frustrated as a doctor for many years because I got some really great training, I went to super good medical school, I got an immunology degree.

I was doing my sort of specialists' exams, I was doing kidney medicine, light nephrology. I was going slightly frustrated, I thought, "I don't want to just see one part of the body. I think everything's connected and I don't want to just see kidney issues for the rest of my career."

So I moved from that to being a generalist. And one day at the end of my clinic day, I looked back at all my patients and I thought, "How many people have I really helped today?"

And I thought I've only really helped 20 percent of people, 80 percent of people I feel, "Yeah, I've done something, I've given them a pill, I've referred them for an investigation or a test," but I didn't really feel I understood what was going on and how to help them get to the root cause of their problem.

And so I think that frustration was just burning away inside me, I didn't really know what to do with that I just knew I was— with hindsight, I looked back and realized I was a little bit frustrated.

And ultimately, Shawn, the reality is that 80 percent of what I see as a primary care doctor now in any given day is in some way related to our collective modern lifestyles. 80 percent. And so I'm not putting blame on people, I get it, life is tricky, life is tough, there's a lot of pressure, there's a lot of stress out there, I understand that.

So I want to really help people understand that the various aspects in our lifestyle absolutely drive a huge part of how we feel and how happy we are, how productive we are, what our relationships are like.

And so I realized that I can have I think more impact by making a TV show where I'd go into people's homes who are sick and they can't get better with medication, they're under their doctors, they're under their specialists.

And I managed to show millions of people in the UK and in many countries around the world that if you pay attention to small things in your lifestyle you can literally transform the way that you feel. And it's almost unbelievable when you say it like but it really does make a difference.

And I try and keep things super simple for people because I think we've overcomplicated health, we made things too difficult, too extreme and when you just focus on some basics you can have a huge impact.

So that's why I love doing the TV, that's why I love writing the books, that's why I love recording a weekly podcast, it's because you can empower people like you're doing with your podcast, you empower people with information that they feel is actionable, and it doesn't just affect one component of their life or their health, it impacts everything.

Shawn Stevenson: Yeah. Absolutely. Man, I love this so much. You know what's so fascinating for me, is that just coming from the space that I was in, when I initially went to school and choosing a pre-med track, I saw pretty early on, which I wasn't really cognizant of it, but there's this hyper-focus on medication.

And so it's not that it's not valuable, it's just that conventional medicine, it tends to be operating from a place of like you're deficient in a drug. And someone like yourself is like, yes these are tools, but 80 percent of this stuff is related to our lifestyle, these are things that we can change, we can improve and we can use medicine to support that.

So it's really beautiful to see man, and the impact that you're having and then transitioning that into the books, into the television is so cool. But this particular book that we're going to

talk about today is really near and dear to my heart because this is an issue that is not talked about enough and it's the underpinning of so many issues.

And so this is The Stress Solution. And I'm just wondering for you personally, like what was it, was there a certain day, was there like a moment when you realized in your practice like, "Listen, I've got people eating better, they're getting out and they're moving their bodies, but stress is really messing a lot of people up and causing some of these issues, we just kind of attribute to other things."

Dr. Rangan Chatterjee: I can't say there was one particular moment, right. But I remember over a period of years things were coming up and the whole diet and nutrition thing wasn't enough to help my patients, just nutrition is great, movement is— sorry, I said diet and nutrition I mean nutrition and movements, which is basically what the whole discussion around health gets polarized in just it's all about food, it's all about movement. Those things are important but I realized for many patients they simply weren't enough.

And so a couple of things, I guess, from my practice I've noticed, one particular patient I saw, I still remember this super clearly, right, he had type 2 diabetes and I think he was maybe, I am going to guess late forties early fifties.

He had type 2 diabetes, he saw my TV show, he'd read some of my blogs, he'd read some other health blogs on the Internet. And he thought, "Wow, maybe I can do something with my diet to help my type 2 diabetes."

So he went on to what most people would call a low carb diet, okay? Now, I say most people would call, I'm sort of, I'm not a huge fan of that term and the reason I'm not a huge fan of that term, even though many of my friends use it, it's because I think it's very simplistic, I think we have demonized fat for many years and I think we are potentially doing the same thing with carbs now, unless we have a bit more concepts [16:23] more nuance. But this guy he went on what would be called a low carb diet, he really cut down his refined and processed carbohydrates, fantastic.

And he was starting to get an improvement in his blood sugar. Now he was doing this just from reading the information on the Internet, he was empowering himself and making a change. But he was getting frustrated because his blood sugar wasn't coming down anymore, it plateaued.

And he was trying to cut his carbs, even more, to figure out, "I must not be doing it right, I need to cut back more." And anyway, he ends up in my door, he ends up in my clinic and he says, "Hey look, that strategy, I've been doing this, I'm still on Metformin," which is a blood sugar drug, "I've really got my sugar under control but I can't get it any lower and it's frustrating me."

I was looking at his life and I thought, "Hey man, this guy is stressed out. He is a busy executive, he's working late every night, he's not sleeping well," all kinds of other things are going on and I actually think he's stressing himself out more trying to cut carbs even more.

And so I spent a bit of time trying to understand what was going on and it was quite clear to me that stress was the primary issue. But he was resistant, I said, "Look, we need to really work on your stress levels. When you are stressed out that will raise your blood sugar, I don't

think this is any longer a diet issue, I think this is the stress issue. You've made great changes in your diet, well done, but focusing overly on that area you're missing the big picture."

So all he had to do were some simple things, right? I helped him over the course of a few weeks to switch his computer off his work, computer off for an hour before bed, so I mean he was literally doing work e-mails in bed because he had so much to do.

He was resistant at the start so I started with 10 minutes, and then he gradually would start to feel that [18:11] he went to an hour. He was also killing it in the gym and what I mean by that is, he was a busy executive, working hard, rushing high, always on the go. When he went into the gym, he would go to a like a really intense spinning class.

And I said, "Hey look, I think it's high, and I think your body is depletes, what I'd love you to do is yes, sure, work out, but maybe let's work on yoga for a few weeks, let's really work on a type of exercise that restores you, and it's not depleting. Now, I'm not against spinning, right, but it's about the right form of exercise and movements in the context of the rest of your life".

So he was a bit resistant but he agreed. So basically he switches off before he goes to bed, he cuts down the technology.

I teach him some breathing techniques like one that I call the 3,4,5 breathing technique when you breathe in for 3, you hold for 4, you breathe out for 5, and he switched the spinning classes for yoga. Within 6 to 8 weeks his blood sugar started coming down and maybe 6 to 12 months later it came right back down to normal.

He didn't change his diet and I told him, "Actually, you can eat more carbs than you currently just relax a little bit, have some more whole-food carbs, I think you're going way too extreme for what you need."

So that's just one, I've got so many stories, but that's one case where I thought, "Hey, it's not all about food and movements." For me, I said there are 2 other big pieces, the sleep, which obviously you're an expert on, you're an expert on the whole wellness space, but sleep is a big issue.

But I think stress is an issue that people, as you've already said, people are not talking about it enough. That's why I wrote the book, I want to give stress the air time it deserves, so people start to take this thing seriously.

And to give you another example, Shawn, what happens every January, in the US and the UK, what are people trying to do? They are trying to cut down on sugar, they are trying to cut down on alcohol.

Now here's the thing— in January, if you say to yourself, "Hey, this is the year I'm going to do it; this is the year I'm going to get my life on track, I'm cutting down on the sugar this time, I'm cutting down on my alcohol."

What I see happen in my clinic is this— for one week people use willpower, they're fine, they can do it. 2 weeks it might be okay, even 3 weeks they might be fine. But then they start to go back to their existing behaviors.

And I see that often we use alcohol, often we use food and things like sugar to soothe the stress in our life. So if I don't deal with the underlying stress in their life, I can't change the behavior.

So look, I don't like giving these things a rank of importance, I think food, nutrition, movement, sleep, stress are all important, but if people will listen to this podcast and they have tried to change their nutrition and they can't make it stick, maybe it's because they're using food to help deal with the stress in their life.

Shawn Stevenson: I love it. Yeah, it's so powerful. And I think that all of those components you just mentioned, it depends on the time of year, it depends on the day, it depends on the person, it depends on so many factors, it's unique.

And it's really, it's an interesting kind of ebb and flow, sometimes other things are going to get more attention than others. But stress, and I'm so glad you mentioned this that you are popularizing this conversation about it because it's overlooked.

You mentioned something about changing some things with his lifestyle, not the food and helping to support his blood sugar in coming down. How exactly can stress affect our blood sugar in the first place?

Dr. Rangan Chatterjee: Yeah, I'm going to say it's a fantastic question and I think the best way to answer that is to really explain clearly and concisely what the stress response is, right?

The stress response is fundamentally there to keep us safe. That is ultimately what it's set to do. So let's rewind 2 million ago. 2 million years ago, we would be in our hunter and gatherer communities and our tribes.

We're getting on with our business, doing whatever we're doing. If a wild predator is approaching, like a lion, then we suddenly start to change, what happens— we're scared, we think, "Okay, there is a predator approaching."

In an instance, our stress response kicks into the game. So what happens? A series of physiological changes kick into place when that happens. Your blood sugar starts to rise, why?

Because then more glucose can go to your brain which is what you need in an emergency situation. Your blood pressure starts to go up so more oxygen can get to your brain, that's going to help you get away from the lion, right?

Your amygdala, which is the emotional part of your brain, that goes on to high alerts, so you are hypervigilance for all the threats around you. That is an appropriate response when you're in danger.

Your blood starts to become more prone to clotting. That's great, because if you get attacked by that lion and you get cuts instead of bleeding to death your blood is going to clot and that's going to save your life.

So in the short terms, these things are super helpful, the problem today is that many of us are having our stress responses activated not by wild predators, but by our daily lives, by our e-mail inbox, by our To-Do lists, by our competing demands, by 2 parents working, one is trying to rush home to pick somebody up and take them to a sports class, elderly parents who might have to look after.

For many of us our bodies are reacting in the same way, so those things that work so beautifully well in the short term, like your blood sugar going up, if that's happening day in day out to your life, well that's going to lead to low energy, it's going to lead to obesity and type 2 diabetes right, because stress raises your blood sugar, that's the reason it does it. It's not just food, it's not just movement.

As you know yourself, Shawn, sleep deprivation raises your blood sugar, but everyone is still just talking about food when we need to broaden out that conversation. Blood pressure is a big problem these days.

Again I've just shown people help blood pressure, your blood pressure going up if you're running away from a lion is appropriate. If you're at the gym and you're doing a spinning class, your blood pressure will go up that's an appropriate response to a short term stressor. It's these things are becoming long term, that's where the problem is coming about.

And that emotional part of your brain, the amygdala which I told you about, which goes on to high alerts when you're stressed, that is an appropriate response if the predator is attacking. If you are in downtown LA tonight and it is dark and you think someone might be following you, you want your emotional brain to go into high alert, you want to be hyper-vigilant. But if that's happening day in day out to your e-mail inbox, that's what we call anxiety.

So the stress response once we understand it we start to realize the studies show that 90 percent of what a doctor sees in any given day may in some way be related to stress, which is a remarkable figure.

Shawn Stevenson: Yeah, yeah. You know this is a great segue into you talk about these MSDs, these micro stress doses.

Because for me, immediately a thought comes up, well those are small things, you know the e-mail inbox, the rushing to get my kid to their practice, but it's all of those things combined like that's not a lion coming your way but it adds up. Is that right?

Dr. Rangan Chatterjee: Absolutely. I remember, Shawn, when I sat down to write this book, I was trying to figure out how do you simplify stress, how do you really get across in a very simple, nonjudgmental way what you're talking about?

Because I think we ignore stress a bit, we talk about it all the time, we know that we're in a stressed-out culture, but I'm not sure what that means. Many of us don't know what it means or what we can do about it.

So the way I simplify is this— the first thing to say is we've all got our own personal stress threshold, and that will vary. Yours may be different from mine, it may even vary from day to day depending on how we slept and all kinds of different things.

And I made the case that it's that threshold that's important; when you get to your threshold that's when things start to go wrong. So how do I explain that even further?

Well so we've got 2 kinds of stress, we've got macro stress toasters right, and these are the release traumatic things that may happen, this could be physical abuse, this could be a bereavement, this could be a relationship breakup.

Now, these things are what I call macro stresses, they are big hits of stress that we do need to process and we may need to see someone to help us with that's. But what I'm primarily talking about is the opposite of that which are these micro stress doses or as I call them in the book these MSDs.

Now, what is an MSD? An MSD, as you just really demonstrated, is a small dose of stress that in isolation we can handle, right, no problem, one of these things, I've got to pick my kids up, I need to rush there and get them, no problem.

It's when they start to add up one on top of another, they get you closer and closer to your own personal stress threshold. And when you hit your threshold, that's when things go wrong.

That's when your bat goes, that's when an innocent e-mail from your boss suddenly becomes problematic, that's when we fall out with our partners or scream at our kids. Because we've had our threshold.

It wasn't necessarily the last stressor in our life that caused it, that was just the straw that broke the camel's back, it's the final piece that gets us to our threshold. And I make the case that many of us are leaving our house in the morning having already been exposed to 10 or 15 micro stress doses.

So I'll give an example— what is a common scenario these days? A common scenario is people are stressed out at work, they come back late, they don't want to go to sleep because they want to unwind, they want some time for themselves.

So they start watching Netflix, okay. And then one episode turns into 2, which turns into 3. I get that, I have done this before, I am not being, I'm not judging people for doing this. But let's say you go to bed at midnight because you finally feel that, "Hey, I've unwound from the day and I've got to be up at 6:30 for work tomorrow," so you go to bed.

You set your alarm for 6:30 so you go to bed and let's assume you're in a deep sleep. You're in a deep sleep, your alarm goes off at 6:30 in the morning, boom, that is micro stress dose number 1 because that jolted you out of your deep sleep.

You look at your phone, you look and go, "Oh, I've got a bit more time, let me just put snooze on." You put snooze on, 6 minutes later again the alarm goes off, micro stress dose number 2.

Then what might you do, you might go, "Let me look at my phone." Quickly look at e-mail, "Oh man, there are 3 work e-mails from yesterday I didn't respond to I need to do that today." MDS number 3.

Then you quickly flip onto Instagram and you say, "Oh man why is that person having a go at me for my last post, they have a little niggle at me." MSD number 4. Then you realize, "Oh man, I've been in bed for half an hour just doing this stuff, I'm going to be late for work, I need to get up and get out." MSD number 5.

And you can quickly see how before we've even left the house in the morning, we've had 15 micro stress doses. Why is that a problem? That's a problem because it means you now are much closer to your own personal stress threshold, that means it won't take much in the day before you get and before you flip over.

So my approach is not just about reducing the stress in your life because you know, I get it, some people have got super stressful lives, maybe I can't reduce all the stressors in their life.

You know, if you're a single mom with 2 kids and you're working 2 jobs, you know what, that is a significant amount of stress in your life, even if you kind of remove the stress though you can make yourself more resilient by reducing how many micro stress doses you've been exposed to, but also with some simple techniques that we can all use.

So I don't know, I think that micro stress is something that is really taking off in the UK, people really like that as an idea to help them identify and think about stress.

Shawn Stevenson: Yeah, yeah, man, so powerful. It reminds me of WMDs, weapons of mass destruction.

These micro stress doses in the way that they influence our lives and what's so cool is that, for years I've been talking about a different version of this and I call it your overall stress load, and this is the first time I've seen it in book form and you detailing out like how it all can take place and just put so much on top of you and you don't even realize it.

And we're really just kind of putting ourselves at a disadvantage before we even get into the day a lot of times. And so man, it's so fascinating. And this is the first time [30:46] has been said on the show by the way.

Dr. Rangan Chatterjee: What did I say? Nigel? [30:46]

Shawn Stevenson: Yeah this is, before you even came here, I was telling my guys, my team, I was like, "Yeah he's going to have a cool accent".

I was getting ready for it. So man, thank you so much for sharing that. And if you could, before we go any further, just to point out something important that obviously just for you to speak on this stress isn't all bad. Right? There's an upside to it as well.

Dr. Rangan Chatterjee: 100 percent and I think we've all got to be super careful when we talk about stress and it's a good reminder to me that not all stress is bad. Stress is normal, we need stress to perform and function.

It's the right kind the stress in the right dose at the right time. If you love your job let's say and you are adequately [31:29] you know, and your job is stressful, how much of an impact, you may be thriving, you may thrive on that stress. It's like most things, a little bit is good, too much is problematic.

And I tried to illustrate that in a graph in the book, to really help people understand it. But other than that, we can take an example, what's a regular example of a normal life— a cup of coffee, right? So many people use caffeine to help them— we can argue whether it's helping them or not, that's a separate conversation.

But I think we know the feeling, for those of us who are habituated to drinking caffeine, sometimes we need one or 2 cups to get us going. So that's a little bit of that caffeine stress if you will, helps you perform, helps get you in the right states.

Too much, if you have a couple more extra cups 2, 3 more, many of us know that feeling, we start to feel jittery we start to feel anxious, it's like diminishing returns. You see what I mean? It's like the right amount can get you in the zone, too much becomes problematic.

To make it scientific, cortisol which is the primary stress response hormone in the body, a little bit of cortisol, so if you have to give at public speaking events, someone listening to this has to present to that team at work and they get a bit nervous, a little bit of cortisol, like if you feel a bit stressed helps you perform, you think more clearly, you can pull things out of your memory much more effectively.

But too much stress and your brain is fried and you literally cannot think and you can't perform. It's about the right amount of stress and I think what a little bit of cortisol does that helps your brain work super well?

What does too much cortisol do— it kills nerve cells in your brain's hippocampus that's the memory sensor of your brain, and look, I didn't say this to scare people but we now know that chronic stress is causative and it develops the Alzheimer's disease.

It's not something we think about, yes we're worried about it but we don't think how our day to day actions can impact Alzheimer's, there are many other factors to consider as well but chronic stress is one of those.

And here's the thing with Alzheimer's— it doesn't just develop overnights, you don't even get it like just one year before you have symptoms. Alzheimer's disease starts 20 to 30 years before you get it in your brain.

So I worry when I see the society of chronic stress when I see the World Health Organization calls stress the health epidemic of the 21st century, and you see the research on it with Alzheimer's.

I worry that many of us, we're living these busy overloaded lives that we take stress for granted and we don't realize the impact it's having, not only in our short term health but also on our long term health.

Shawn Stevenson: Yeah, that's so true, so true. For me, and when I think about beneficial stress, I immediately think of exercise. And we know that we, our body, it's a trigger for adaptation, but when we continuously put that stress on us and we're not recovering from the stress, that's when things break down.

And you share in the book so brilliantly the fact that stress actually can do the same thing, it can make your brain stronger but too much stress, too many of these micro doses, or even a macro dose of stress can literally change our brain, the structure of our brain, the performance of our brain in a negative way, and it will hypersensitize to more stress. So can you talk about that? I think it was feed-forward or something like that?

Dr. Rangan Chatterjee: It's a feed-forward cycle, look, all these things, you've got to know something, the brain is always responding to the information you feed it, it's always adapting, so the more stress you have, the more chronic and unrelating your stress is, your brain's going to adapt to be able to function in that environment but it doesn't do that good a job.

We're talking about what the brain, we're talking about how stress affects the brain. I think a really useful thing, a really practical way of looking at that, the people I think will resonate with is this whole idea of downtime.

So I think one of the big, big problems I see in society is that we've lost downtime. Downtime has been slowly eroded away, it's been stolen from us. Every single moment of the day, if we have nothing to do we pick up our phones, we're now absorbing, we're reading new information, we're learning new things, we're reacting to what's going on around us.

But we're here in Santa Monica recording this right— if you were here I reckon 10 years ago and you walked into a cafe or a bar, or a restaurant, or whatever, you went into a coffee place let's say, and there's a queue.

I bet you, 10 years ago, that people would be looking around, they would be daydreaming, they might bump into a friend or a work colleague, they might be looking at the pastries and think, "Am I going to have to stay, am I going to resist?"

They'd be switched off a little bit. If you go into any, if we walked out of here now and went to the nearest coffee place and you see the line what is everyone doing?

Shawn Stevenson: On their phone.

Dr. Rangan Chatterjee: We're on our phones, right, we're on our phones. And you might ask why is that a problem? The reason that's a problem is because your brain needs downtime.

So we used to think, Shawn, that when we switched off from a task in front of us that our brain went to sleep, but it's not true. We've realized in the last few years when we switch off there's a part of our brain called the default mode network or the DMN that goes into overdrive.

So what does that part the brain do? It does many things, 2 things it does, it helps you to solve problems and be more creative. So this is the exact reason why people, so many of us have our best ideas when we go for a walk or we're in the shower.

I get some of my best ideas in the shower, right, why is that? It's because you've switched off, your brain tries to solve problems for you, right. Is that making sense?

Shawn Stevenson: Yes. Absolutely.

Dr. Rangan Chatterjee: And it's so powerful and downtime, we don't see the problem with always being on our phones, and always consuming information. Your brain needs downtime to thrive, and this is why I was so keen to say even like— I go into a lot of companies, big companies to talk about employee wellness.

And one of my top tips is have a tech-free lunch break, even if it's just for 15 minutes. Put your phone in the drawer, go outside, have a walk it sounds so simple. I made a different show last year for ITV in the UK on stress and as part of that show we got to follow 3 people, we measured their stress levels literally for 3 days, like minute by minute, and we were tracking what they were doing and how it was affecting their stress levels, we did something called heart rate variability monitoring on them, which I think you've covered before in the podcast.

And essentially a high HRV, so high heart rate variability is a good thing, it means that your body is able to cope and adapt to the stress around you. A low reading, when your heart beats it's very much like a metronome is actually slightly problematic, it suggests that we have too much stress in our body and our body is not able to cope and adapt.

That one person in particular right, he was, I am going to guess he was around 40 from recollection, a 40-year-guy who was a manager in a local company. And he took his job super seriously, super, super seriously, he came in early, he worked through lunch, he stayed late, he'd go home.

When he'd go home to unwind he drinks more alcohol than he wanted to, it was impacting his relationship with his wife, it was impacting his sleep and he wanted help. Now, I could see on his workdays that you looked at his stress readings, they would start to go up throughout the morning.

At lunchtime, because he didn't take a break they'd keep going up. By the time he left home, he had a huge accumulation of stress and that would affect his relationship and impact his alcohol habits.

All I asked him to do, Shawn, was this. I said, "Listen, what I'd love you to do, at lunchtime put your phone in your drawer for 15 minutes and go for a walk." He goes, "Yeah, okay, I can do that, fine."

He goes and does that for about a week. The following week we retrack everything, what happens? You see on those workdays his stress levels go up in the morning as before, at lunchtime, they go right back down to baseline, they reset.

And in the afternoon they hardly go up to anywhere near the same level. So what does that do? That means that when he goes home, he has a knock-on consequence. So look, objectively with the data, I've seen a big difference. But what's more interesting to me is subject to the what does he think, what does he feel, not what does the tech say.

He says, "Doc, I feel like a different person. I've got more energy, I'm more productive in the afternoon, I'm now leaving earlier than I meant to finish, I'm leaving home early, I'm drinking less alcohol and I'm closer with my wife now."

Why? From a 15-minute lunch break. I'm so keen to make health accessible to people, like wellness I think has become for many people, they think, "Oh, that's great but it's expensive, it's inaccessible."

Every single one of us has the ability to have a 15 minutes tech-free lunch break every day. And I guarantee, if people are skeptical, try it for 7 days and see the difference.

Because yes, that's the kind of a story which you can sort of think about, but your brain, your default mode network it wants to help you, it wants to be more creative, it wants to help solve problems for you, but you can't do that unless you give it downtime.

Shawn Stevenson: It's so valuable, the problem with it though is that it's too simple.

Dr. Rangan Chatterjee: Too simple!

Shawn Stevenson: You know, it's too simple. And listen, there was, and I mention this on a past episode, if especially a lot of people that listen to the show, they are wanting to perform at a high level in all the areas of their lives, and if you're talking about that work performance, if you're talking about tapping into that creativity like you mention and problem solving, the idea that not pressing and beating ourselves down instead unplugging it seems counterintuitive but here's the thing— and this was Stanford University.

They found that just a simple 15-minute walk, 11 to 15 minutes increased something called "divergent thinking" which is this thinking outside the box by 60 percent for the test subjects, just getting out and going for a walk.

So that hip of unplugging, and so what I've done just personally in my own life is, because you've got to consciously have yourself do this, if I do find myself in a line I literally, people watch. I'd put the phone away because it's easy, it's like a slot machine in your pocket, and just be there, be present.

When you get on an elevator, especially if there are other people on the elevator, you know, it's kind of weird, I just become present. And taking those little small opportunities.

And one of the great things that since we've moved, because before I like lived in the woods, it was like whole thing, I never know if like an animal is going to run up or me, but now I live in a neighborhood and so I go for a 10 minute walk, twice a day. And that's the one thing that I build into my days to actually unplug. And I have some great ideas when I do that.

Dr. Rangan Chatterjee: Do you go without your phone?

Shawn Stevenson: Absolutely! Absolutely. And a matter of fact, and I want to make this statement, it's dangerous, like if you're out walking and there's like cars and all this stuff and you've got headphones on listening to, I want you to listen to me by the way, but I just I want you to also be safe.

I saw somebody was it yesterday morning or this morning— it was this morning, and so they were running by, they got their pods in, the air pods and there are cars going up and down the street, I'm just like bro you could just take a little you time and just unplug and it's going to help your brain.

Dr. Rangan Chatterjee: I didn't know about that Stanford University study, that is so interesting to me that just 11 to 15 minutes, and I suspect a lot of that will be because of this Default Mode Network that we've been talking about, because it does help you be more creative.

When I go into these companies and to these big tech companies to talk to them about employee wellness, there's a tendency to go, "Yeah, I want to perform but what supplement do I need to take? What do I need to do? What extra thing to any to put into my life in order to perform?"

And often it's just simply about taking something out. This is like, we are living in this culture now and when we look I love Santa Monica, I've been here for like 10 days. You go to every shop here you could, not every shop but many of them, you can take supplements, you can buy a coffee, it can be an activated coffee, you can get a shot of the latest kind of brain-boosting supplement right?

I get all that, I love all that stuff, don't get me wrong, I'm interested in the research behind all that stuff, but let's just break it down, switch your phone off for 10 minutes a day, you will get a lot of those brain-enhancing benefits from just doing that and that is free, that is accessible.

I know I said this, Shawn, but I take this so seriously— I have worked with wealthy, affluent patients, I've also worked in deprived communities for years, and I am super passionate that we have over complicated health and that actually good quality health advice should be available to everybody.

And actually, if we can simplify and show you, like every single thing I recommended in my book is free. You can buy apps to help you do certain things if you want, but pretty much everything else is free, which means actually, we just need to be empowered with the information and we need to pick one thing and go, "I'm going to try that one, small thing for the next 7 days and reassess."

And so the tip that you give people I'd say, "Yeah, why not mimic what Shawn does for 10 minutes, twice a day, go for a walk without your phone. Do it for 7 days and see the impact on your wellbeing, on your energy, but also on your relationships around you."

The other thing I think, and this is why a quarter of the book on stress is on relationships is, and to take this theme of kind of downtime and not switching off, one of the reasons why so many relationships are under the strain these days, and there are many reasons, but one of them is that even if we are with the people that we love, let's say our partners, boyfriend, girlfriend, wife or our friends, or our kids, physically, geographically we're in the same place.

But you know where I'm going with this, in your heads, we're distracted by our phones, we're a million away. You've got a cliché now that husband and wife are lying in bed together, the whole society is complaining that people aren't having enough sex and libido is a big, big issue.

The cliché is that you're physically in the same bed together but you could be millions of miles away because you're both looking at your own customized feeds, your own customized Netflix channels.

You're no longer connecting in the same way and I think it's a serious, serious problem. So I love technology as much as the next guy, right, but I think we just have to be mindful and go, "Hey, maybe I'll go for a walk twice a day without my phone."

Maybe like at dinner times we're going to have a rule where we don't have phones there, so we actually, we can connect. And they sound so simple, these things, these things were in culture until about 15 years ago, we did them naturally, that's how quickly things have actually escalated.

And I think we almost just have to go back to how we lived 15, 20 years ago and a lot of these stress problems, well that should be a lot reduced.

Shawn Stevenson: Yeah, and we're going to talk about more of these specific solutions because you cover some very specific domains and how we can address some of these stresses in our lives, and we're going to do that right after this quick break. So sit tight, we'll be right back.

I don't know about you, but when I was growing up I was obsessed with juice. I am talking about the juice boxes, Capri Suns. Do you remember when Capri Suns came out?

The complication of getting that straw into that little plastic bag and shooting it all over you oneself as a child? Everybody had to experience it, but the Capri Sun was delicious.

It went from there to getting a little bit more fancy and having "tropical punch", I became a big fan of Hawaiian punch, and that was my thing, I wasn't a big fan of sodas.

I was getting the juice. But here's the thing— it wasn't really juice. If you would read the package it would literally say 0% juice in the juice, it was trickery, trickery. And here's the thing— how can they create these flavors?

There's this incredible technology, they have a gas chromatograph that you can synthesize and extract and find those flavors and create them artificially. So what's the point in going and getting a real strawberry if you can create that flavor and that smell?

And so we really kind of found ourselves in a nutrition black hole because of that and providing these things to our kids in our society as if everything is normal, but it's not normal.

We know now that those fake juices were hurting us, hurting our metabolism, introducing a tremendous amount of sugar, very processed sugar there can really cause massive issues whether it's with our brain health, whether it's with our metabolism in our ability to burn fat.

Matter of fact, the name tropical punch, where does that even come from, it's really like a punch to your pancreas, it's a nice uppercut. And so today though, the game has changed.

Now we have this updated knowledge and we have the ability to create a juice that's really special and something that's available no matter where you go, because it's been low temperature processed to retain all of these vital nutrients and these wonderful, many of them red superfoods and delivering not just a similar flavor sensation, back in the day we get

Crystal Light, don't forget about Crystal Light, but this is something that is actually going to add to your health and not take away.

My kids are also huge fans of the Red Juice formula as well and this is why— one of the hallmark ingredients here in the Red Juice formula is Acai, you've heard of Acai, it's hot, it's hot right now.

10 times more antioxidants than just about any fruit that you can name, it's an antioxidant powerhouse that also assists your body in producing its own endogenous antioxidants which are really the most powerful forms of these things, they really help to keep us younger longer.

All right, we've got some cranberries in there, cranberry is a great for your digestion and for your bladder; pomegranate, again, super hot right now. Pomegranate is full of antioxidants as well and found to be beneficial in study after study for your cardiovascular health as well as strawberry, we've got some blueberry in there too. Raspberry is a great source of Vitamin C.

Vitamin C is great for your immune system for generating, creating new tissues Vitamin C is great for your skin. And the list goes on and on because we've also got some other super herbs in this formula too, Cordyceps, Rhodiola, Ginseng. What am I talking about here?

I'm talking about Red Juice from Organifi. You need to get your hands on this Red Juice, it is amazing.

It tastes good and also it is incredible for you, this is kicking the whole concept of these barrel juices and juice boxes that I used to get messed up on when I was a kid right down the stairs. All right, this is the real deal.

Again, a low-temperature process to actually retain the nutrients so you're actually getting what is promoted to be in the Red Juice itself. So pop over, check them out, it's organifi.com/model, you get 20 percent off of the Red Juice right now.

That's O-R-G-A-N-I-F-I.com/model for 20 percent off the Red Juice formula, the Green Juice, Gold, everything that they carry, but I highly, highly recommend getting your hands on the Red Juice.

I like to have it in the afternoon to little pick me up, to give a little bit of a jolt and supporting your energy but coming from Earth grown nutrients, real food. Again, pop over check them out organifi.com/model for 20 percent off and now back to the show.

All right, we're back and we're talking with bestselling author Dr. Rangan Chatterjee. And he's got a brand new book for us available for us here in the US, "The Stress Solution"

And this is an important book to add to your library, it's loaded with very actionable, as he mentioned before the break free things that we can do to help to reduce the stress in our lives. And in the book, you cover some very specific areas.

You talk about in these 4 sections purpose, relationships, body and mind, and some very practical things. But the one that really stood out for me and you started the book with was talking about how purpose relates to stress.

And this was just fascinating for me, immediately I was like, "Yes, that's the thing". But can you just break down why you felt that was important to put into the book?

Dr. Rangan Chatterjee: The science is pretty clear, like not having a sense of purpose in your life is associated with much poor health outcomes across multiple conditions. It's associated with much less happiness, lower-income level, so many things are associated with not having a sense of purpose in our lives.

And I feel that fundamentally a life which has no meaning and purpose is inherently a stressful life, right. We can talk about all the other things but actually not having a reason to get up in the morning, not actually knowing where you're going with your life, I think it's incredibly stressful.

Now I appreciate that even simply saying that can sound stressful to someone if they are hearing that and they're going, "Yeah, okay fine, but I don't like my job, I don't like where I live, what can I do about that?"

And so why I started the book with this because I think it is probably one of the most important things. And yes, of course, breathing, exercise, meditation, nature, all those things are important and I cover them all and I give practical tips in them, but I think the meaning and purpose piece is probably the most important.

And I think it's one of the freshest, it's a new idea for people to latch on to. And so, Shawn, a few years ago I came across of this Japanese concept IKIGAI. Have you come across it before?

Shawn Stevenson: I haven't.

Dr. Rangan Chatterjee: I was on Facebook and one of my friend's post said, they said that these 4 circles, these 4 different circles and where they intersect in the middle is your IKIGAI, it's how the Japanese live, it's the way of living your life so you have meaning and purpose.

And the 4 things were, you need to find one thing in your life that you're good at, that pays you money, that you love and that the world needs. And I thought, "Okay, that looks great, I like that, I would like a bit of IKIGAI in my life."

But then I would use this concept with my patients and I told some about this, and many of them they just found it too intimidating, they found, "Yeah, man, that sounds great but how am I going to get there?"

And actually, on the UK book tour back in January, I remember I gave a big talk in London and at the QA at the end, a Japanese student put her hand up and she said, "Dr. Chatterjee look, I'm very familiar with IKIGAI, it's part of my culture. But I find it very stressful my whole life it's an impossible ideal for me to live up to."

Do you see what I mean? It's great if you can get it but many of us don't feel we can. And so I created a new framework in the book called "The L.I.V.E framework" to help people start to find meaning and purpose. It's called L.I.V.E framework L-I-V-E, L for love, I for intention, V for vision and E for Engagements.

Now we don't necessarily need to go into the whole thing, but I think the first one is super, super interesting for people. And I think it will really shed some light onto their lives. L is for love, right, so that is about passion.

So the research tells us this, Shawn. it tells us that regularly doing things that we love makes us more resilient to stress. But conversely, being chronically stressed makes it really hard for us to experience pleasure in day to day things, so it works both ways. So passion is a huge part of meaning and purpose, it's a huge part of stress, it's a huge part of health.

I had a patient maybe a year ago 52-year-old chap, right. He was the CFO of a plastics company local to me. And he came to see me. And he was married, he had 2 kids, he had a good job, he's living in a pretty decent house.

From the outside his life was good. But he came to see me and said, "Dr. Chatterjee, look, some days I kind of struggle to get out of bed in the morning. My motivation's down a little bit, I feel a bit flat about things. Is this what depression is?" That's why we were chatting, I started to try to understand what was going on in his life, I ran some tests some blood, all normal.

And I said, "Look, how's your job?" "My job is okay, I mean I don't really enjoy it but I've got to do it, you know, I've got a mortgage, I've got a family to feed. That's why I do my job." I said, "Okay, how's your marriage?" "Yeah, so so, I don't really see my wife that much, I guess it's okay." Very, very indifferent. I said, "Have you got any hobbies, what do you do in the week that you enjoy?" He said, "I don't really have any hobbies, I'm too busy."

I said, "What about the weekends?" "Weekends I've got to do all the house chores, household chores, I've got to take the kids to their sports classes, I don't have time doctor for hobbies." I said, "Okay, did you ever have a hobby?" "Yeah, like as a kid, as a teenager I used to love train sets."

I said, "Okay, have you got a train set at home?" "Yeah, I've got one in the attic but haven't seen it in years, it's probably dusty and you know got cobwebs on it." I said, "Look, what I'd love to do when you get home tonight is get your train set out." Now I fully appreciate is probably not the advice he was expecting from his doctor, but that's the advice that I gave to him. Anyway, I didn't see him for a few weeks and that's not uncommon, we simply, we have so many patients we can't follow everybody up.

But 3 months later I just finished my morning clinic, I was in the car park about to do some home visits for the elderly patients who can't come into the practice and I bumped into his wife. I said, "Hey look, how's your husband getting on?"

She said, "Oh my, Dr. Chatterjee, I just want to say thank you. I feel like I've got the guy I married back again. He comes home from work, he plays on his train set, he's on e-Bay buying collector's items and he subscribed to some monthly magazine now." I thought, okay, that's great. I felt really good I still hadn't seen him.

3 months later, I was looking at my clinic list and his name's on it, he had done some blood tests and he was coming in to see me for the results. So I said, "Hey, how are you getting on compared to 6 months ago?"

He said, "Doc, I feel like a different person. Life is good, I've got energy, I feel motivated and I'm concentrating much better." I said, "Okay, great, how's your job?" "My job? I love it now, I'm really getting a lot out of my job." "How's your relationship with your wife?" "So good, it's the best it's been for years."

So, Shawn, I'm going to ask you a question— did that chap, did that man have a mental health problem? I mean, he certainly had symptoms that would be consistent with a mental health problem, you know, I could have diagnosed him with something like depression, potentially.

But it's not what he really had— a deficiency of passion in his life. And when we corrected his passion deficiency, when he corrected his passion deficiency, not only does he feel better with himself, now that the job that he didn't like so much he's enjoying and getting more out of.

Now, this relationship started to improve and this is why I am so passionate about passion, right? We talk about health, we talk about the amount of vegetables we're eating, we're talking about the workouts we do or don't do and, of course, that's important. But I want people to get passion, the same priority as they will give to the number of vegetables they have on their plate, right?

It is so important, so the prescription I give to people is can you give yourself a dose of pleasure every day, even if it's just for 5 minutes, it could be reading a book, going for a walk, listening to a podcast, right. It could be coming home from work, putting on your computer or going on YouTube, finding your favorite comedian and laughing for 5 minutes.

I don't care what it is but that's my challenge to everybody listening to this podcast— can you give yourself 5 minutes of pleasure and passion every day? And the second request I make of the audience, and it's your audience, but if you don't mind my requests I'd make of them is — have a think, when was the last time you did something in your life that you really, really loved? Something you did not just a personal social media but something you did because it makes you feel good.

If it's not been for a while, that's okay, but I would suggest today at some point, you look at your calendar, you make some calls and you schedule it into your diary. Passion is important for your health, it is as important I would argue as any other component of your health.

Shawn Stevenson: Absolutely. Thank you, thank you, thank you. This could be roller skating, this could be hula hooping, this could be walking your dog, this could be basketball.

When we think about the purpose we tend to just immediately jump to what we do for a living, for our job, and you just gave a great example that doing something that he loved fed back into his work and he found greater love there as well.

So please keep that in mind because we all have this opportunity to start this today. But I think it's a matter of giving ourselves permission to do something that we love, which is crazy we have to say that, but it's just like today we're so distracted and we're so "busy" but I'm telling you right now, there are people who are far busier than you, who are far happier because they've given themselves permission to do something that they love.

Dr. Rangan Chatterjee: For sure. And the reason I share these examples is I really want to make health accessible for people. I don't want people to think, meaning and purpose is quite lofty, many people might feel it's quite unattainable, like depending on the way your life is currently right now, that idea of having meaning and purpose may be quite stressful to think about it.

And I think passion is a beautiful entry point because you don't have to change anything else, just start putting a little bit of passion into your daily life and what you'll find is it starts to feed you, it starts to nourish you and over the coming weeks, over the coming months, other things in your life will start to become clear.

And it's like a knock-on effect, you don't have to go from 0 to hero, you don't have to suddenly quit your job, find the job of your dreams, find the partner of your dreams, or the dream house, that's not what I'm talking about. Take these small steps and these small steps will take care of the big steps later.

Shawn Stevenson: Yes, yes, yes. Man, this is so good and I really want to illustrate this point here and how purpose and passion translate into your real, tangible health. I wasn't planning on sharing this, but I just sent this to somebody today.

And I just had a conversation with him about it, it's actually Eric Thomas, E.T who was just on the show recently. And this was a new study, and this was published, this is actually a brand new study, this is nuts, wait till you hear this— a brand new study published in The Journal of the American Medical Association, Jama current open.

It uncovered that people who didn't have a strong life purpose, which for them this was defined as a self-organizing life aim that stimulates goals for them, right, that's a very tangible way to put their purpose in mind. And so here's what they found— these folks who didn't have a strong life purpose were more likely to die than those who had a specific life purpose, and die specifically from cardiovascular diseases.

Now, here's how it translated to be: this study included 7,000 American adults between the ages of about 50 to 60, they found that people without a strong life purpose were more than twice as likely to die over the course of the 4 year study period compared to those who had one.

This is nuts, right. So again, this isn't causation but this is a very interesting correlation and it's something that matters because we're talking about invoking something that does, it's a stress solution, and we now understand today, thanks to you, how detrimental stress can be.

And so we have to incorporate something that we love. Give yourself permission not just for your own mental health and wellbeing and happiness, but literally, this can protect your life.

Dr. Rangan Chatterjee: Yeah, Shawn, please do send me that study as well I'd love to see it after this podcast, that sounds super interesting.

The point that came into my head as you were just describing that is, you know, guys, look, I guess a lot of people will listen to your show and try to get tips on that well being, they want to improve the way that they are feeling, improve their diet, improve other aspects of their health.

What you will find is when you start to engage in regular passion, you'll find it gets easier to make those other decisions, you'll find it easier to make healthy food choices because the nourishment is such a crucial part of us, that actually then we will feel less of needs to compensate and actually suit the stresses in our life with sugar and chips.

Do you know what I mean? It's like, it's all connected and hey, could that be, I wouldn't say an easier but a more inspiring tip to do? Do something that you love, right, it's not like you have to do something you don't like, we're asking you guys to do something that you love.

Shawn Stevenson: Whatever it might be.

Dr. Rangan Chatterjee: Whatever it is, right.

Shawn Stevenson: It could be some weird stuff, too. If you're like super into the Smurfs like my man was into trains and it just like lit up his life. Twerk classes, whatever it might be, you know, I can't believe I just said that, but you know, like the movie Hustlers just came out so it jumped into my mind, Jennifer Lopez, shot out.

So if you're trying to do a pole dancing class, if it's you're into shoes and you just want to study all the Jordans and just there are so many things that might speak to your soul. If it's music, just give yourself permission, add it in every day. This is so awesome.

So one of the things that you talk about in the book and this was a really interesting study that you noted, and I want to talk about that, I think this is one the most powerful tools that we have access to that we're not utilizing.

2012 study you noted that if we change the way we think about a stressful event, we can improve our physical health and also the way our brain reacts to these micro stress doses.

And what the study was, it compared the group of folks who didn't reframe their stress and the participants in the study who reframed their micro stress doses, so thinking about them differently, because micro stress doses happen to everybody, but reframing them they had lower blood pressure, higher attention levels and even improved their efficiency of their heart muscles. Nuts, right?

Dr. Rangan Chatterjee: It is nuts. And this is why I say I'm a huge fan of daily reframing practices, look we've got something called negativity biases humans, this is probably what's kept us alive and survive for so long, we always turn our attention to the negative.

So you know at the end of your day, if you've had a stressful day and a busy day, and you think about it often the negative stuff will come up, what happened or someone ignored me in the corridor at work or you know, whatever, someone bumped into me in the cafe and they were rude or the waitress was, whatever it is.

We come back to the negatives. And there are so many beautiful things that you can do in the that don't take long, that can just reframe the day for you and as you said with that study when you reframe actually it changes the way your brain processes things.

So I'll tell you one thing I do Shawn, with my family, like when I'm at home and I make a huge priority that obviously I'm in LA at the moment but when I'm back in the UK and I'm in my house, we all sit and have dinner together.

And there's no technology there, so it's a big thing for us and we play a little game. And the game we play is that everyone has to go around the table and ask a 3, well, it used to be 3 questions, it's now 5 questions, but I'll start with 3 questions to keep it super simple.

What have I done today to make somebody else happy? What has somebody else done today to make me happy? And what have I learned today?

Now, it's such a powerful game by I actually thought this is going to be really good for my kids but it's actually really good for my wife and I as well. Because you very quickly start to reframe the day, you start to look at the positive things and there is positive in every single day, if we can start training our mind to look for it.

So the practice about training ourselves every day to start looking at the positives. A few months ago my daughter said to me, "Hey, daddy, you know, at school today Annabel open the door for me on the way out to lunch break."

That's a small thing, I very much hope that what I'm doing by that is not only improving my own health, but I'm also modeling to my children, I'm hoping that actually, they start to learn on a daily basis.

Let's start looking at the positives that happen in everyday life. So that was one game that people might find useful. If you've had a negative experience in the day, right, a great way to reframe it is to actually write it down.

Like if you start writing it down, it's very hard to be as critical to yourself as when you keep in your head. In our head, we can make it, we can turn into a big thing; as soon as you start writing it down, you start to realize how ridiculous some of the self-critical behavior can be sometimes, it sounds, it just sounds silly when you write it out and you can start to be a lot more rational.

The other way you can try and do it, this is another tip for people if they struggle with negative experiences and they can't switch off from it, and these practices also help our sleep quality, which you well know, but another one is to imagine you are a commentator on your life, like in a sports game that people are watching, there is a commentator, you guys call it commentator as well?

Shawn Stevenson: Yes.

Dr. Rangan Chatterjee: Yes, you're a commentator. Imagine you are commenting on your life, so let's say there was a meeting with your boss and something negative happened. In your own head you can turn this into something that it never was; if you pretend you're a commentator, and you also write it down and you say,

"Okay, so I came to that meeting, actually my boss was actually super tired, he's not performing well because his kids weren't doing so well, that's why he's tired, that's why he

didn't really look at me and gave me the attention. It wasn't because of the way I was feeling."

Look some of these tips may resonate with people, some of them won't. Choose the ones that do resonate with you, I will say that that gratitude practice that I play with my family is fantastic, a lot of my friends also.

Sometimes I will play with my friends when we're out for dinner, we'll play it together. It sounds a little bit, it sounds a little bit California, right? But it's great and it's so powerful.

Shawn Stevenson: Yeah I love that, I love this so much. That idea of kind of taking this metaperspective and zooming out, because a lot of times, a big part of stress is the rumination, right, when you just ruminate on that issue over and over again and again, it just lights up that stress part of our brain.

And what we tend to do is to overreact, obviously. And to take a step back and like the commentator, I love that example, so you got your boss and, "Here's his boss, he's had a long day and his children, one of his kids is at home sick and he's— And then here comes Shawn, walking into the room, all in his feelings and emotional, and he's already dealt with 15 micro stresses and so he's going to be hypersensitive too."

And just kind of like tell the story from a metaperspective rather than being in it so deeply and that starts to take some of the heat off of it I think.

And so you sharing this study about reframing and if we could, can you give another example of what reframing is and kind of— because for me, as soon as I hear a study like that I think about and I mentioned earlier, it's just it's thinking about a stressor differently, right?

Dr. Rangan Chatterjee: Yeah, I think it's, reframing is literally, I mean it's you know, it can sound complicated but it really is simply about looking at the same story from another perspective.

That's it, ultimately, however you want to do that, it doesn't matter, if you talk to a friend for example. I don't know, I guess a useful way to think about it is it's a bit of an Instagram cliché these days, but I think like a lot of clichés, it's the truth, it's kind of like are you talking to yourself in the same way that you would talk to a friend?

Like let's say your friend had that same experience, you would say, "Hey look, maybe your boss was tired right, maybe you know, I'm sure you're reading too much into the situation, you've been a really good employee, I'm sure there was something else going on, I'm sure he's not going to fire you next week."

You would really start looking at it with compassion and try to take the heat out of the situation. We can't do that sometimes ourselves, we struggle to do it ourselves, that's why writing practices are so useful.

When you get it out of your heads and down onto paper, suddenly you know, you are literally taking the thoughts out of your head and putting them on the sheet of paper, like quite literally.

And so there are so many tips in the book of how to reframe, just choose one that works for you. Like a daily gratitude practice, whether it was that one or just 3 things that you're grateful for, it's not technically reframing, but it actually it still helps and the whole sphere of basically, you just got to understand this, we have a tendency as a human being to go to the negative, right?

Unless you train the ability to go to the positive, you're never going to be able to do it. We are by large, most of us are safe these days, most of us. Of course, many of us aren't, but for human evolution, for millions of years, we've always been worried about our safety, that negativity bias has kept us alive.

But now where we're living these kinds of comfortable lives that are pretty safe, that negativity biases start to harm us. And so I go to the gym if you're trying to perform in a race or you want to be a better runner or you want to have you know a better body let's say that's your motivation, unless you train regularly, that's not going to happen. Unless we train positivity regularly, it's not going to happen, our default states is negativity. So you have to train it and again, I'm not talking an hour a day, some of these things take 2, 3 minutes a day, right, that's the point.

And my tip would be put it in as a regular part of your day somewhere. So for example, let's say you want to do this before bed because we know that the practice of reframing, a practice of gratitude absolutely improves sleep quality, it helps to switch off the stress in your mind before you go to bed.

A little tip would be leave a note pad or a little journal that you like, I think it's important that you like, not just a scrap piece of paper, a journal that you like with a pen on your bedside table, motivate yourself every night, you just come into your bed, you go there, you're going to see it, it's like a visual prompt and reminder, "Hey, why don't I just spend 2 minutes writing down a few things I'm grateful for."

It can be that simple, it really can. It doesn't need to be this big, complicated process that requires minutes and hours of your time.

Shawn Stevenson: Yeah, so good, so good. So we're talking about these 4 sections in the book, we've got the purpose, relationships, body, and mind. And I want to touch now, if we can, really quickly on touch and on relationships.

Because you talk about the need you know, it's like an actual physiological, biological need for touch and for intimacy, but these are, it's a little bit different the way that you painted in the book and it just makes a lot of sense.

Dr. Rangan Chatterjee: Yeah, look, the whole research on human touch, if I'm honest 3 years ago I didn't know about it. I didn't know about it.

I was filming, I think it was a BBC documentary a couple of years ago and we were in Liverpool John Moores University, and I was interviewing this professor called Professor Francis Mcglone who's one of the world's leading researchers in touch.

And he said this, "Human touch is not a sentimental human indulgence. It's a biological necessity." It's incredible. And then you look at his research and it blows you away. So let's try and break this down, simply so people understand.

We have got 2 different types of touch nerve fiber, we've got fast nerve and a slow nerve, and they do 2 completely different things. And before we get to touch, I'm just going to illustrate this with pains, I think it's super easy for people to understand with pain.

If you're, Shawn, your kitchen and you are heating something, you're cooking right, and then your hand touches the boiling pan, in an instant what happens— you pull your hand away. Instant, within milliseconds it's like a reflex.

That is the fast pain nerve fiber, that's transmitting the signal that this is hot, you need to take remedial action. A few seconds later it's when the emotional quality of that pain kicks in, you might feel like crying, you might feel a bit upset that that's happened, that's a different sensation and that is mediated by the slow pain nerve fiber.

Another way of thinking about it is this— if you've got kids, and this happened to me a few years ago when my daughter was 4 years old she fell over in the backyard, she fell on her knee. Immediately, she was just a little bit bemused, she was just rubbing her knee.

3 to 4 seconds later is when she started to cry. Because the fast nerve fiber tells you what's just happened, "Oh, I've been hit on my knee, I've hurt my knee."

A few seconds later, with the slow pain nerve fiber, it's an emotional quality to that pain. The same thing happens with touch.

So if now I touch you on your forearm right, you know that Rangan has just touched me on my forearm. Okay, you know geographically where I've touched you. That's the fast touch nerve fiber.

But there are also slow ones, right, there are slow ones that actually are maximally stimulated when you stroke them and when you stroke them at 3 to 5 centimeters per second —

Look, I get it, when we're stroking our children or our wires we're not timing it and going, "Oh, we're stroking at 3 to 5 centimeters per second." But what's interesting is if you observe mothers, and they've done research on this, when you observe them stroking their children they automatically lock into that speed. That is innate in us as human beings.

Now when you stimulate these slow touch nerve fibers that are called CT afferents, if people what the scientific name, what happens?

They go to a different part of the brain, they go to the emotional part of your brain when you stimulate these slow nerve fibers, the level of the stress hormone cortisol comes down, your heart rate comes down, your blood pressure comes down, things called natural killer cells which are part of your immune system, the way we fight off coughs and colds, that comes down, all from being touched, right?

So the case I'm trying to make is we have become a touch averse society. I get it, there are many reasons for that. There have been lots of cases of inappropriate touch in society, but have there been some unintended consequences?

Have we forgotten how fundamentally critical regular human touch is for us? And I think we have. I'll tell you what's also interesting, Shawn, these CT afferents slow touch nerve fibers, where do we get most of them on our body?

Most of them are on our upper back and our shoulder. Now think about it, why would evolution put a special type of nerve fiber that we need somebody else to simulate for us, why would they put that on a place of our body where we can't reach very easily?

I think it's, me and Professor Mcglone were talking about this and we think it's because humans are social beings, this is evolution's way of keeping us connected with people. You need someone around you, you need your tribe, you need someone to do that for you, it bonds us.

And you know, to make it super matter and look it in a different viewpoint, again, this is a correlation. A few years ago in the NBA, they looked at basketball teams at the start of the season. The basketball teams who had more touch with their teammates at the start of the season where the teams who finished at the top of the league.

What? Again, correlation but interesting nonetheless. Research has shown if you go into a, if you go out for a meal and the waiter or the waitress gives you the check and touches you on the shoulder when they give you the check, you tip more.

What? Human touch is fundamental, we have neglected human touch, appropriate, safe human touch, of course. But one of my recommendations is to keep a touch diary, for one week literally list every time you have appropriate affectionate human touch whether it's from your partner, your kids, even your friends right.

And whatever is, the next week try and double that. And you will start to feel the difference. So you know, I'm really proud of that chapter and there's a lot of fresh information there that's not out that much in many health what I've read and I think when people read that, I mean that has absolutely changed my own behavior, what I do with my children even what I do with my wife, because when you understand, when you've seen the science on it, you're like, "Wow, well it's so easy, it's free", it's coming back to what I said before, you know it's a buy an expensive supplement, you're down to something that is simple, it's innate.

And this is slightly controversial but I made, I think there's one part in the book where I make the case that many of us know the curvy contours of our smartphones more than we do of our partners'.

And that is slightly controversial but I think there's an element of truth in it that we all kind of can resonate with, do you know what I mean?

Shawn Stevenson: Yeah, yeah. Swipe up, yeah, that's so funny, man, so funny. You know this is, as you were describing, I'm immediately thinking about how I can implement this more conscientiously in my life.

My wife and I are really great about this, with our youngest son Braden who's 8 now, and I immediately thought about that pattern, just when I rub his hair or something like that, before each other, we have these little conflicts with each other.

We are very close and just intimate, very close couple, but when she actually rubs me, she tends to rub my—I'm a hairy fella, she rubs my hair the opposite way.

And I was like, "Babe, cats don't like that, I don't like it." And so she's like, she is more careful, right. And the same thing like when I think about when I go and just I massage her shoulders, and 9 times out of 10 we've talked about, she'll be like, "Oh, this is so great I need to get a massage." "I'm giving you a massage!" She's just like going off to the next thing, because of the tension or whatever.

And so but now, I would be resisting because I don't want to tell her like, "I need a professional to step in here," or she doesn't want me to tell her that you know she's grabbing me like a bad cat.

And how can we do these things because they matter, like let me just actually learn, "Okay, she's just saying that she enjoys this, right, and not be hypersensitive to it". And the same thing with me, like she's trying, she's extending love and touch, let me not be so hypersensitive that I'm some kind of alley cat or something.

Dr. Rangan Chatterjee: Yeah, look, it can be tricky because some of us we, you know some people will be listening to this and will be thinking, "I know why she likes touch that much," and often that can come down to, not always, but often it's to do with how much we were touched as a kid.

Shawn Stevenson: Absolutely.

Dr. Rangan Chatterjee: Right, and if depending on what that relationship was like with our loved ones and maybe with our parents, that can impact our ability to sort of even want to receive touch when we're older.

But I've seen with patients, you can start to change this, it might be very slow. If you feel uncomfortable about being touched, if there's somebody, someone who you feel safe, where you feel appropriate with, like a good friend let's say you really trust, maybe start there, like, "Hey, look, I wonder if we can have a hug?" As you have a hug say, "Can you just sort of pat me on the upper shoulder, upper back as I do that."

And it sounds so soft, if people look at that chapter in the book they will see, there is hard research and data on this, there is this proper science. So it's about trying to find this stuff in your life, introducing—

Yeah look the touch trade as I call it in the book kind of has exploded, massages, which are great, there are even the professional cuddlers now in the UK where they go around and cuddle, because we are starved, we are society starved of human touch. And it's just, I think for many of us, simply the awareness of this, will lead to change.

Hopefully people will listen to this podcast and they'll hear that and go, "You know, I can make a bit more of an effort there." One of my most popular recommendations in the book actually is, in the intimate section it's called The 3D Greeting.

I think you remember this one, but it's kind of to do with touch but other things and I say, "Look, going on the theme of before where some of us were with the people who mean the world to us but were not present, I said, "Look, try something called the 3D Greeting", greet your partner in 3 dimensions for like 15 seconds a day. This is what my wife and I do and it's a bit forced at first, but very quickly it feels incredible.

You greet with touch, so let's say a hug, with eyes, so you make eye contact and with voice, these are the 3 dimensions. It's such a simple thing for 15 seconds in the morning can transform our day, if you really connect rather than being busy and rushing around, feeding the kids, getting them off to school.

And sometimes you won't properly connect, it's just a simple way of connecting. And Shawn, the funny thing is, since the book came out, the amount of people who contact and say, "Oh my God, this has changed my relationship."

One woman recently contacted me and I've heard this from many typically women I must say in terms of people who have contacted me about this, she said, "Hey Dr. Chatterjee, I've been doing the 3D Greeting on my husband's for the past week. He's completely changed, he doesn't even realize I'm doing it to him."

He doesn't realize she's doing something, he's more affectionate, he's more present, he's more loving, he's more relaxed with the children right just from her giving those 3 dimensions and effort in the morning.

And you know, I think this is so important, we're so busy, we're so rushing around, it's these little things that actually lower our stress level, sure, but they improve the quality of so many aspects of our life.

Shawn Stevenson: Yeah, absolutely. This is so good, so good. Man, I would love to continue this conversation, there are so many nuggets and insights. But I just really want to encourage everyone to pick up the book.

We're just scratching the surface on all the different dimensions and insights. What this really spoke to for me is that communication with the touch, instead of me telling my wife, "I don't like that" just encourage like, "This is what I do like."

Because one of the things that we do a lot is, and it's so beautiful like you're saying these things and I'm thinking about them in my life, we hug a lot. Throughout the day we hug a lot.

But every opportunity that we have to experience that closeness, it just, it's not just a bonding thing with you and another person, it's good for your system, it's good for your soul. And so thank you so much for putting this together because I know that this was something that really pushes the boundaries of what we think is connected to our health and wellness.

And you've just been out here doing a lot of good work for many years and I just want to just really thank you for stepping up and bringing this to a larger group of people, it's really beautiful to see, man.

Dr. Rangan Chatterjee: I appreciate that, Shawn, and you did great whit yourself and thank you for inviting me to your show for the second time, I'm super, super appreciative man, thank you.

Shawn Stevenson: Awesome. Can you let everybody know where they can connect with you online and where they can find your book?

Dr. Rangan Chatterjee: Yes, so The Stress Solution available all over the world now if you're in the US I'd say the best place is Amazon.com, check it out there.

I'm all over the social media, Instagram is probably the best place to get me at drchatterjee, that's D-R-C-H-A-T-T-E-R-J-E-E. And like you, I also have got a weekly podcast called Feel Better Live More.

Shawn Stevenson: Awesome. We'll put all that in the show news for everybody. Again, thanks for coming and hang out with me.

Dr. Rangan Chatterjee: Thanks, Shawn.

Shawn Stevenson: Awesome. Everybody thank you for tuning into the show today, I hope you got a lot of value out of this. He came in all the way from the UK just to share some of these insights and wisdom and to get the word out.

And he's been doing this work for a long time and the compilation of information and experiences that are in a book like this is really special. And so one of the biggest takeaways for me from the book was the conscientious concept of reframing because we're all going to experience stress in our day to day lives.

And there is an important dimension to understanding that stress can make us stronger, but to modulate the stress and to not allow it to overtake us. And a buffer that we have for that is just simply reframing some of the stress that we're exposed to.

And so one of the things that I do to reframe that I want to share with you is whenever something that might rub me the wrong way or to bring like noticeable stress into my life, I simply ask the question, "What is the gift in this?"

And I think about that, what is the gift in this? And sometimes you have to be a little bit more meta, because when you're in it and something that you don't like is happening, we tend to just latch onto and ruminate on it. Just take a step back and ask that question.

And you'll usually find something really, really beautiful within a certain type of stress that comes up. And so if you can keep that in your back pocket and again, all the stuff that he's talking about today, these are practices, this isn't something that you do once and then you know, it transforms everything in your life.

These things are things to practice and to conscientiously implement. And the beautiful part is there are so many small things that you can do, you don't have to do all of them, but just take one or 2 maybe even 3 and start to practice these on a consistent basis, right. So asking when the stress comes, "What is the gift in this?"

Maybe is providing an opportunity for more resilience, maybe it's providing an opportunity to perspective take, right, to put yourself into someone else's shoes, maybe it provides an opportunity to know how strong you are, right.

Maybe it provides an opportunity to know that I need to take a little bit more me time, there's always a gift somewhere in the mess.

Alright, so thank you so much for tuning into the show today, I appreciate it so much. Make sure to tag myself and tag Dr. Chatterjee and let us know what you thought about the episode, I appreciate this so much.

Share with the people you love that you care about and let's reduce this stress. We've got some incredible episodes coming your way very, very soon, so make sure to stay tuned. Take care, have an amazing day, and I'll talk with you soon.

And for more after this 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 this show is awesome and I appreciate that so much.

And take care, I promise to keep giving you more powerful, empowering, great content to have to transform your life. Thanks for tuning in.