

THE MODEL HEALTH SHOW

EPISODE 555

**Radically Increase Your
Lifespan With These Science-
Based Strategies**

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SHAWN STEVENSON: Welcome to The Model Health Show. This is fitness and Nutrition Expert, Shawn Stevenson, and I'm so grateful for you tuning in with me today. Humans have sought longevity since the very beginning of recorded human history, to achieve a long healthy life or even immortality, humans have sought everything from the fountain of youth to magical elixirs. And this idea of immortality is so integrated into our popular culture today as well, but these stories have ancient roots. And folks, achieving immortality by having an interaction with one of the undead, a le vampire, and achieving that long life that way, or through stories of warriors achieving immortality through all of their battles and getting favor from a perceived deity, there are all these stories of these different ways to achieve long life. But we know today that science tells a very different story. This isn't something that necessarily happens by accident, we do have many different genetic cards that are now being unlocked or un-coded that demonstrate some folks have it in their genetic cards to probably a little bit longer than other folks. But as you're going to learn today from some of the leading experts in the world in the subject of longevity, it is not our genes, but it's our choices that have the biggest impact, and we've got the receipts to prove it.

Now, there's one important caveat before we go into this episode. There's a very big difference between our lifespan and our health span. Yes, our lifespan has been increasing in recent centuries, but there's a caveat here as well, this doesn't take into consideration a lot of folks not surviving infancy and dropping that average life expectancy down significantly. For centuries, we have documentation that there were folks living a long, long healthy life, even past 100 years. Now today, we're seeing this phenomenon taking place where the average life expectancy, yes, has increased overall. However, our lifespan has been extended but our health span has been diminishing rapidly. What do I mean by health span? Your health span is the amount of years that you live with real health, functionality and vitality rather than once we reach a certain point in our society where we have dramatic decline in our cognitive health, in our physical health, we become reliant on other people. Not just on other people and entities, but also on patchwork things: Pharmaceutical medications to treat symptoms, just to keep us ticking along. We want to increase not just our lifespan, but also our health span, and that's what today's episode is really all about.

Because another really important phenomenon that's taken place recently is that our life expectancy here in the United States, right now, for the first time in recorded human history, has gone backwards. That's right. Each and every generation, our life expectancy has been increasing, not health span, but lifespan has been increasing. And now we are the first generation currently existing right now, who are not going to outlive our predecessors, the generations before us. Something is off, something is happening that is, of course, shortening

our health span, but also our lifespan, and this is something that we can do something about. But the key is, success leaves clues, we have to learn from people who've actually achieved the health and vitality that we are seeking as we move on in years. And so today, every single person that you're going to hear from is in their 50s, 60s and even up into their mid-70s and achieving incredible levels of health and vitality. Many of them in their 70s are writing books and speaking all over the world and making a huge impact through that modality, teaching the youngsters what to do to achieve what they've achieved. And this is so important to me because I truly believe that unless you've done a thing, you can't really speak from a true place of understanding and experience.

So, this is why I'm not going to be the one to tell you how to achieve longevity, because compared to these folks, I'm still a young Thundercat. But even within that, I can speak from my position where I am right now and share what I've been able to achieve and putting me in that upper echelon of folks in my age bracket, to be able to have incredible vitality and functionality and robust health and all the good stuff, disease prevention. But if we're talking about real longevity and our potential, these are the folks that we need to hear from. Now, when I refer to myself as a ThunderCat if you're like, "What's a ThunderCat?" Well, of course, you've got the urban dictionary where it's just a young whipper snapper. But then, the name Thundercat itself, this was an incredible television show when I was a kid, growing up in the '80s. ThunderCats, ThunderCats, ThunderCats hold." My guy, Lionel, he was a little kid, and then he was basically put into this cryochamber where they were escaping their homeland, and he comes out the cryochamber and he's aged. He's now...

He's like 20. So, he went in there, he was like 7. Now, he's 20. Grown man style. Got the muscles, everything, and he's the king. So, all of his trials and tribulations about developing his mind to fit his physical frame. It's an incredible TV show. Back in the 80s, it's like so many TV shows, these cartoons had these little hidden messages. Even like GI Joe, one of their mantras was, "Knowing is half the battle." Speaking about awareness, awareness opening the door for success. But ThunderCats really hit home for me. My grandmother got me all the little action figures and the like. But a recent thing happened, and this was right before Christmas, I went to get some gifts for the family who lives next door, and one of the gifts was for a little boy who lives next door, and it was this Lego set, but it was from one of those random toy stores in the mall that is probably not going to be there the next time you come to the mall. One of those that just kind of move spots, moves locations around the mall. There's nothing like buying something from like a gazebo because you can guarantee you're never going to be able to take that back, because they can just roll that bad boy right up out of there and disappear on you. But anyway, so I go into this toy store, I found this great Lego set, he's really into Star Wars, and now I also know it's a problem because there's no prices on any of the toys. And they know it's Christmas time...

You're going to pay. Once you stand in that line, that long line and get to that register, whatever the surprise is going to be, you're going to probably pay for it. So anyway, so I'm standing in line and I'm about to be the next, I'm probably standing in line for maybe five minutes, and I see they have all of these different replica swords, so like a Spartan sword or a sword for a ninja or a knight. But in the middle of all of them, up on the wall behind the cashier, was this gigantic ThunderCat sword, the sword of omens. It was like it spoke to me; it was like a bling... When I saw it, I was just like, oh my goodness, I can't believe I'm seeing this sword. And so, I get up to the cash register and the guy starts to check out the Lego. And I look up at the sword and I ask, "Hey, how much is that sword?"

And he says, "It's \$140. You want to hold it?" I was like, "Yeah, absolutely, I want to hold it." And he said, "Come around, come around the back of the register." So, I came around to the side of the register and he presented it to me as if I was getting knighted into this royal guild of action sword holders. He had it in both of his hands, and he reached it out to me. And I grabbed it, and I felt the weight of that sword. It was like... It's a four-foot... It's at least like 4-feet tall sword, and man, all of the childhood nostalgia came rushing back, and he said, "It's the last one." And of course, I'm like, "Is this guy trying to..." but then there was another person checking, somebody out there was like, "Yeah, we had two dozen in, but they just went out so quickly."

This was the last one that they had besides the display. And so, I was like, "Absolutely, this is a Christmas gift to me." So, long story short, being a ThunderCat, I picked up this massive ThunderCat sword that is now at my house. And I got to tell you, pretty much every day, I go by and I pick that sword up and I'm up there just looking like a little kid playing around with this very dangerous sword, by the way. You could probably hurt somebody with it, but it's just like there's so much beauty here in our connection and in our stories, and being able to share these things with my kids, for example, and creating that nostalgia consciously for them, but also what I'm doing in my life is creating an environment of play, because there's this wonderful statement that says, "We don't stop playing because we get old..."

We get old because we stop playing." And so, creating that environment of fun, of adventure, of curiosity, of play within my family, within my household, I think it's such a gift that we can start today, give to our family, give to our loved ones. See the world through the lens of play and adventure, and sometimes you might happen upon a Sword of Omens. Now, first up in our action-adventure sequence dedicated to longevity, is the one and only Mark Sisson. Mark is knocking on the door of his 70th birthday, and he is shredded. He's like, shredder. He's like Vin Diesel, he's Hugh Jackman. Mark is just on a different level, and if you saw him today, you'd think he's just got that in his cards, he's just genetically gifted. But if you knew his story and you knew where he came from and how broken down his body was by being a long-distance runner for many, many years, we're talking decades, and then he happened upon some powerful shifts in his nutrition, and he'll tell you right out the gate, his nutrition and his sleep

are a hallmark for him. But in this clip, he's going to be sharing with you something specific about time-restricted feeding and a little-known exercise secret that can increase your body's production of human growth hormone.

HGH is also known as "the youth hormone." So, to learn about longevity is learning from folks like this. Mark Sisson is a New York Times best-selling author and a bonafide health and fitness expert. His thriving community, folks who are dedicated to this primal movement, has been amazing. His impact and reach is very, very wide reaching. Mark is also an accomplished speaker, and he's been featured on just about every major media outlet. And in this clip again, he's going to be sharing with you an important tenet about our nutrition, but also a little insight about increasing the production of our youth hormone. So, check out this clip from the amazing Mark Sisson.

MARK SISSON: So, a lot of people choose a compressed eating window. I get up in the morning, I have a cup of coffee at 6:30, quarter to 7:00. I start... I read two papers, I do a couple of crossword puzzles and things like that to get my brain going for the day, then I go to work. I might break it 9:30 or 10:00 to go do a workout. I do the workout clearly fasted, I don't eat after the workout, and I don't eat my first meal till 1 o'clock in the afternoon, and that's typically a salad with some kind of protein on it and a healthy fat on the dressing. And then I eat my last meal of the day around seven, so I have a six-hour compressed eating window, that's the time that I'm taking in calories.

The other 18 hours is when all the good stuff happens in the body, that's when the body goes, hey, I'm going to burn off some stored body fat, I'm going to repair some of the damage to the cells, I'm going to do some house cleaning in the cells, I'm going to actually consume some of the damaged proteins, some of the damaged fats. I might do some repair to the DNA, because all this stuff happens in the absence of calories. So, that's the concept of intermittent fasting, the concept of reduced or compressed eating windows has become the new way of looking at fuel and energy systems in the body, but you have to have done the work to build the metabolic machinery, because once again, hunger just takes everything off the table, hunger destroys this whole concept. The fact that you can create a system that so suppresses hunger that you have to sometimes think, "Jeez, I haven't eaten. It's 4 o'clock and I haven't eaten yet today. Maybe I better eat something. I could go all tonight or tomorrow, but I'll eat something."

Is a whole different concept from being tied to these three meals a day, breakfast is the most important meal of the day. If I don't eat breakfast and I'm off to a bad start and my metabolism won't fire. By the way, one of the things that I find fascinating, and this is part of my research in this book, this sort of assumption that we need to build a fast-burning metabolism, like that's what I want, is a fast-burning metabolism. Where did that come from? Because that's so, again, antithetical to conservation, to conserving energy, and yet most people would say, What's the most amount of food I can eat at this meal and not gain weight, and not feel like crap? What's the most amount that I can eat? A lot of people... I go to the gym, and I see people on the treadmill, like 450 calories read out on the LED or 600. Dude, you're like sweating and struggling and suffering. Why do you do that? You know what the answer is? "Cause I like to eat." Are you kidding me? Dude, you would rather put yourself through that amount of misery just so you can take a couple more bites of something you probably shouldn't eat in the first place. And yet this is how people tend to kind of orchestrate their day and live their lives. There's this inherent gluttony in Americans in particular.

Yes, we're hard-wired to overeat, but that's a survival mechanism from two million years ago. Yes, we're hard-wired to be able to burn that off, but we have to train ourselves to do that. But I just find it fascinating that people would say... So, I'm in the gym mostly to build a fast metabolism, I want to waste food, I want food to pass through me quickly. I don't want to absorb it; I want to be able to eat as much food as I possibly can. And look, I enjoy food as much as the next guy, in fact, I make a bold and brave statement... Look, I enjoy every bite of food I put in my mouth. I don't eat anything that doesn't taste great, because I want to and I deserve it, and it's one of my great pleasures in life. But I also know when to cut it off. I know when I'm no longer hungry for the next bite. There's a certain... I don't know, intuitive understanding that there's going to be food whenever I want it, so I don't need to finish my plate just because there's more food on the plate. I can easily wrap it up...

Take it home, I can easily share it with my partner. I can easily give it away to whatever, I can easily just throw it down the disposal. I really don't need to eat everything that's on my plate all the time. That's one of the things I've noticed about myself over the past year and a half of doing this, is I get by on probably 30%, 35%, fewer calories than I thought I needed certainly than I used to eat, even as recently as four, five years ago. And it's like, again, it's so...

SHAWN STEVENSON: It's conditioning. I remember when I was a kid, same thing. If it's on your plate, eat it all. And instead, today, sometimes we'll use ourselves as the garbage disposal or the trash can.

MARK SISSON: Yeah, no, I mean it's... And again, like somebody... You go to somebody's house, and they serve you this big piece of cheesecake, and your brain goes, "Well, they must think that's a serving size," so I'm going to have to... I'll be fine. I have permission to finish that. And somebody else might give you a tiny little sliver, and the same thing, "Oh, that's a serving size, I'll finish that." What makes the difference is how your brain responds to this food. So, with a piece of rich creamy cheesecake, you might...

The first bite might be, "Oh my God, that is so good." By the way, I'm going to partake of that. So that first bite might be a 10 on a scale of 10. Then the second bite, it might be a... It's an eight. Okay, I've got it, I got the tanginess, I got the sense of it." By the time you get to the third or fourth bite, it's a five or six or four maybe, and now you're just... Now, we're just arguing over how much you can stuff down your gut. You got the sense of what it was, you got the sweetness, you got the tartness, you got the experience. Where does it end? Where does it stop? So that's kind of a skill that we develop within this keto reset program, is like understanding where the satiety factor ends and you're just becoming a human garbage disposal, and gluttonous. And sometimes nothing bad will happen from you having consumed that. It's not like, oh my god, you've screwed everything up, it's just... What's the point? And if you cleaned up your act, you'll also get to the point where you go, you know what? I know that if I have more than say three or four bites, my heart's going to start racing, I'm going to start sweating, I'm going to start secreting some insulin, I'm going to start doing... I'm going to go back to a pattern that is uncomfortable to me, and it's going to last for a couple of hours. So, is three extra minutes of glutinous pleasure worth four, five hours of like, "Nah, jeez...I probably shouldn't have done that," you know? Because you become so attuned to nutritious nutrient-dense good food. Does that make sense?

SHAWN STEVENSON: Yeah, absolutely, I'm just thinking about... I think we just created a new t-shirt here, "human garbage disposal." For the holidays, put that shirt on. Just let it be known

that's what you're going to do. It's so fascinating, and before... And I don't want to forget this, when you mentioned about training and then essentially fasting until your feeding window after that, it immediately reminded me of something I came across a while back about human growth hormone being up regulated with that. Do you know anything about that?

MARK SISSON: Of course. So that's another just side benefit of not eating, is human growth hormone and testosterone get pulsed up a little bit. The way I utilize that in my training is that's why I train fasted. So, let's say you do a heavy leg day, or you do a full-body workout, med con-type workout once or twice a week, the reason you're doing that is to get better, you're not doing it to beat yourself up, unless you love that kind of stuff. And you might be a cross fitter who goes in and does it every single day. And I'm not picking on CrossFit, I'm just saying, three days on, one day off. That's a lot of work, right? So conceivably, you're doing this because you want to get stronger. Well, how do you get stronger? Well, you get this hormetic stress, this acute stress that we talked about earlier, you get micro-tears in the muscle, it's all good, provided you get this up regulations pulse of human growth hormone and testosterone, and that's what's going to cause the muscles to get stronger and bigger and bring the amino acids in to create the new muscle tissue or to repair the damaged muscle tissue. Now, one of the things that blunts this pulse of growth hormone and testosterone is insulin. And so, the concept of a post-workout meal, it's...

And again, there's no right or wrong answer here. These are just choices. So, one choice in the old day... My old way of doing this would have been, alright, I just did a hard workout, and it was like a 10-mile run hard, or it was eight times one mile on the track with a half mile rest in between, and I've exhausted all my glycogen and I got to go run 20 easy tomorrow, easy being a relative term.

SHAWN STEVENSON: To replenish.

MARK SISSON: I'm going to go replenish my glycogen stores, so in replenishing my glycogen stores, to be able to do it again the next day. That was probably a smart move. Now, conversely, in the gym, you go, well, I did a heavy leg day, I want my muscles to repair, I'm not going to repeat this thing tomorrow, because if I did it right, I won't even be able to do it for three more

days. I'll move on to a different body part, but you know what I mean, I won't be able to do it, I'll be... I have done enough work that I'm so sore that I need to spend the time to repair, so the last thing I want to do is blunt that hormonal response with the growth hormone and testosterone, by taking a post-workout meal, because by taking a post-workout meal, all that's going to do is increase my glycogen, but I'm going to build back glycogen anyway.

Regardless of whether I eat or not, I'm still going to replenish glycogen. It's just going to take a little bit longer, but as long as I'm not going to do it tomorrow, then I don't care that it takes two days or three days, 'cause I'll be at the same place in terms of glycogen, if I do a hard workout, another leg set in three or four days that I would have been had I done the post workout meal, but now by choosing not to do that, I'm taking advantage of this ketogenic-type response, which is a pulsing growth hormone, and testosterone and a maximizing of the benefits of the workout.

SHAWN STEVENSON: Now, even within that fasting window that Mark was talking about, he still opens a door for some storied specific beverages that not only help to keep that fasting window extended, but also provide the body with these stress mimicking nutrients or fast making nutrients that actually increase the body's level of autophagy of insulin sensitivity and the breaking down of stored energy and using it, stored fat and using it for fuel, one of those storied beverages is organic high quality coffee. Stanford University recently deduced that the caffeine in coffee is able to defend against age-related inflammation, their research revealed that light to moderate coffee drinkers live longer and more helpfully, thanks in part to the protection that is coffee-derived caffeine provides by suppressing genes related to inflammation.

You're going to learn in this episode today from one of the leading experts in this topic talking about genes and longevity, just how important this is, this is nutrigenomics, this is how our nutrition is an epigenetic controller, it's something that is influencing the expression of our genes, and this is something that we have the power to change. So, with this, okay, we got organic high-quality coffee, so not coffee, that's coming along with pesticides and toxic molds and micro-plastics and all this crazy stuff that can be in your favorite coffee, but getting high quality coffee, but for me today, specifically, this is going back to my Thundercat's story, the

mentor for the main character for Lion-O, the guy who had the Sword of Omens, there's always...

These mentors, this Yoda-like figure, and for him it was Jaga. And I always thought his name was Chaga, and even when I grew up and I learned about Chaga, I immediately thought about the Thundercat, I was like, was his mentor named after a mushroom, but it's actually Jaga, with a J. Chaga with the CH is one of the most renowned, most studied, most remarkable medicinal mushrooms in human history, and I say this because it's probably the highest antioxidant food used by humans ever recorded. Again, the highest source of antioxidants. So, Chocolate? Chaga's more, Acai? Chaga is more, you name it, Chaga has more antioxidants. Specifically, these antioxidant compounds have been found to increase superoxide dismutase in the body, this is a natural antioxidant enzyme that's produced within the body, that plays a significant role as a free radical scavenger. It essentially acts like a bodyguard like Kevin Costner in our system. That protects your DNA from damage and helps to reduce the workload placed on your immune system. Isn't that important today? So, my high-quality organic coffee is also blended with Chaga, and today I had one that's blended with Chaga and Lion's Mane, medicinal mushroom. Which data published in Biomedical research had test subjects with a variety of health complaints, including anxiety and poor sleep quality.

They were given lion's mane or placebos for four weeks, and the participants who used the lion's mane had significant reductions in their irritation and their anxiety levels compared to those in the placebo group. There's one place to get this and that's Four Sigmatic, go to F-O-U-R-S-I-G M-A-T-I-C.com/model. And you're going to get 10% off, at least, they might even hook you up with a little bit more, alright foursigmatic.com/model for 10% off plus their incredible organic coffee blends, and also, they have the straight elixirs themselves. We're talking about the mushroom of immortality; you know which mushroom that is? Reishi. It's known as the mushroom of immortality, they have that Reishi elixir as well, alright. So, you got Reishi, lion's mane, cordyceps all together as their stand-alone elixirs or blend together with hot cocoa or even in coffee blends. I absolutely love them foursigmatic.com/model. Next up in our longevity compilation is a person who wrote the book, Aging in Reverse, I'm talking about fitness expert, Natalie Jill.

Natalie has been a fitness icon for many years, but her first magazine cover didn't come until literally just a few months before her 40th birthday. Alright prior to that, she was struggling off and on with her health, and she decided, you know what? At this time in her life, when most folks have kind of packed it in, like, this is it. This is my lot in life. I can't get better from this point, I'm fed this story that things just continue to devolve, and she was like, "No, I'm going to be in the best shape of my life when I turn 40, I'm going to figure it out to turn things around and transform my life." And by doing that, she not only transformed her own life, she impacted the lives of millions of others, so in this clip, she's going to be sharing with you an important mindset shift around aging. And around longevity, and this is critical. Checkout, this clip, and the amazing Natalie Jill.

NATALIE JILL: So, the reason I called my book Aging in Reverse is, imagine if we didn't have all that outside noise around aging, because when I say aging, especially to women, what comes up for them is they don't want to be that or they feel dated or has been, so people want to fight, fight, fight. I need to look 20 forever, I need to like 30 forever. But that doesn't have to be the way, and I'm not saying, go accept and age gracefully either. That's not what I'm saying, but what I'm saying is, it doesn't have to look a certain way. Aging can look like whatever you want it to look like.

SHAWN STEVENSON: Yeah, absolutely.

NATALIE JILL: It could be your powerful years, it could be the years that you get stronger, it could be the years where you learn more where you become more authentic, where you have more fun, it could be all of those things, but it starts with that shift of like, okay, what am I telling myself about this? What am I deciding? What do I want? And where am I finding evidence to support things? If you're finding evidence all day long that, "Hey, 40s, 50s, 60s is bad." And that's what you keep programming yourself, of course, you're going to set yourself up for issues, but when you look for the opposite and you validate that people can be healthy, can be strong, can be vibrant, can do these things, it starts to shift your perspective on that as well.

SHAWN STEVENSON: So... So good, so powerful, it's so real. And this is something I've been thinking a lot about as well recently, is that we are bombarded with messages of aging because is...

NATALIE JILL: Yes.

SHAWN STEVENSON: Because of all the examples and also even the way we've grown up and seeing the aging of our parents or grandparents, and there are folks who, they are needing assistance in their 50s and 60s, and maybe their arthritis is so bad, they're in a wheelchair or cane, but then there's also these examples of people who were in their 70s and 80s who are running marathons and competing in Spartan races.

NATALIE JILL: Totally.

SHAWN STEVENSON: Living their best life.

NATALIE JILL: So, what are you going to decide to make your norm? Like that's a thing. I hate statistics. I hate when doctors say, "Well, statistically, you have a X percent chance to live, or you have a percent chance of this happens." I hate that, because you could be the 1%, you could be the 2%, get rid of that and just go for, where is the evidence of the one that's overcome this. With my leg, with that happening in my back, and my leg, I instantly could have said, "Oh, I can't work out anymore, I'm not going to... This is just what happens." And you know what? No, would have challenged me. I could've enrolled the whole world on why my leg doesn't work and I can't workout anymore, and I can't do this, and I'm going to do a whole another career that could have easily be done, but that's not... That is not fully living and aging in reverse, and I interviewed a woman on my podcast, a Janine Shepherd, and her story really stuck with me because she was an Olympic athlete, she was training for the Olympics, she was hit by a truck, hit by a truck, training for the Olympics, imagine this totally paralyzed, airlifted to a hospital, told she would never walk again, by multiple doctors told us every reason to believe to that she refused to listen to it.

She found evidence of others that could re-train their brain, and she is a documented walking paraplegic now, a walking paraplegic. There's been movies about her all because she decided and refused to let in the noise that that wasn't going to happen for her, and when I heard that story when I interviewed, when I met her in person, it's like, "How can I stay caught up on my leg with that like really, how can I stay caught up on that?"

SHAWN STEVENSON: Yeah, oh my gosh. So again, just get this message, we have to tune into different stories and not get caught up on the societal norms and conditions, because the reality is, for centuries prior to this, there was a whole different experience in aging, and people think "Well we live a lot longer now." That's taking it... When we're talking about the average, we're taking into consideration a lot of people dying a lot younger due to not having access to healthcare and clean processes and these kinds of things, infection, but we actually see if we look at indigenous cultures, folks who are much older.

NATALIE JILL: Yes.

SHAWN STEVENSON: Still out, kicking it, dancing with the kids, being a contributing part of the society, and today it's just a different story.

NATALIE JILL: And let me tell you... That's a perfect example too. If you look at years ago, somebody had to decide it was possible to live longer. Right? That had to happen. I have a vision that 100 years from now, 50 and 60 is not going to be old, that will still be young people will still be having kids, then maybe that'll still be your youth. Because 100 years ago, it was very different. The life expectancy, 150, 100 years ago. Totally different story. So, this is, you have to have that vision and that willingness to step out of what you've been told or what you've believed and look at there's another possibility, and here's a thing, right or wrong. You might not agree with me. Okay, but right or wrong. What does it hurt to believe that? Seriously, if you want to give in to excuses and validating and saying, it's not possible, and argue with me. Great. Is that make your life any better because we've just taken away any possibility? If I say, "You know what, you're right. Your thyroid. You're this, your metabolism. You're right, it sucks. You're right, your hormones are shut, you're right, you're just going to be overweight now, you're going to be in pain forever."

You're right. What does that do for you? What kind of life is that? That's a life without hope, so to me, validating excuses serves no purpose, it literally serves no purpose, it makes you temporarily feel better in a moment, it does not do anything to help you live a bigger life, and for me, I'm taking a stand for people to have a bigger life, because validating excuses is doing a disservice to people.

SHAWN STEVENSON: I love this so much, and this is why I love the book because you're working on the stuff that really matters, because we hang on so tightly to our stories of limitation.

NATALIE JILL: Yes.

SHAWN STEVENSON: And it's just because it's a sense of certainty in our lives, things have been this way, but they'll continue to be this way. Your past will equal your future, if that's where you decide to live and helping people to become more aware and to shift from these limiting perspectives that we have, these self-imposed stops is huge, in giving us freedom.

NATALIE JILL: So, what's interesting and... 'Cause I do talk about food in here, and I talk about planning your plate and what's funny is a lot of times somebody will say, "Well, what? I'm getting older, so I'm gaining weight." And they're not... What they're failing to see is how they ate and acted may be younger, maybe it wasn't the best way either, it's just that they were younger, so it made it a little bit easier, so it's not that it's not possible, it's just that now we really do get to look at what is health and what is fueling us with good nutrients versus just helping us cope with feelings. So, food and nutrients take on a whole new meaning, because if you eat... If you practice conscious eating and you're really eating with foods that are going to help keep you vibrant and young and energetic and focused, it's just a win-win situation, it's the perfect winning formula.

SHAWN STEVENSON: Absolutely, well, I can't have you here not talk a little bit about the plan your plate, because you've got an interesting take on fasting, which we know... We've talked about this on the show before, many different benefits, but there's different flavors of it for us to take on for ourselves.

NATALIE JILL: Totally. So first the premise of the... What I teach with eating is an unprocessed natural food diet, Step One, so eating real natural foods, and what I tell people is to focus on adding in more of the good, which makes less room for the bad. So instead of going extreme with, "I can't have all these things." look at it like "Can I add in more of the good?" So unprocessed natural real food is my first rule, my second role is about looking at foods that cause inflammation because we want to lessen that, especially as we age, so I want to set my body, I want to set your body up to win, so by feeding you fast food and processed junk, I'm not setting you up to win because we're going to... If you do have an injury or you have inflammation it's just going to get worse, so why not eat foods that are going to fight against that, so I take inflammation really seriously, and I take foods that are known to cause inflammation out of the plan, and then the fasting thing, I'm not against fasting, I'm not for or against it. But here's what I do now, when you give your body a break from digestion and you give your body a break from secreting insulin, you are going to lose fat and have better focus and more energy, and when we're constantly eating and constantly making our bodies work to deal with that, we are going to be in a state of foggy brain and fat storage and all of that.

So, the reason I talk about what I call modified fasting versus full on fasting or intermittent fasting, is I want things that can be a lifestyle for people, so traditional intermittent fasting, you eat all your food in four to six hours really, and that's just not even... Really doable for a lot of people. If it is, great. But that's very hard to do. So what I teach is giving your body a break, so let's say you eat your last meal at six, you wouldn't need eat till six again the next day, which is just a 12-hour overnight thing, which at least gives your body a break, and then also giving your time... Longer space between meals, so rather than having a 6 to 8 meals a day, we have two or three meals a day.

SHAWN STEVENSON: Next up in our longevity compilation is one of my favorite people. Dr. Alejandro Junger, Alejandro Junger MD, is a New York Times best-selling author of Clean... Clean Gut and Clean Eats. He was talking about the health of the gastrointestinal tract and the microbiome, years before it was in vogue and in his primary practice, he focused on cardiology, that was what his training was in, but he began to see that there was a much bigger story than what was provided through his conventional education and began to study nutrition and other

modalities of health and wellness to really give his patients the very best care possible, and since then, he's now sought after by some of the biggest names, celebrities and everyday folks for his incredible wealth of knowledge. And he is yet another example of walking the talk, demonstrating what longevity really looks like, so check out this clip from Dr. Alejandro Junger.

DR. ALEJANDRO JUNGER: What I always tell my patients, and I see incredible results is eat real food, don't eat food like products, eat foods as you find them in nature and try to have variability in species and in colors of plants, mostly. But I'm also convinced that there is nothing wrong with good animal protein, so as long as the animals that it comes from, are living in the wild, just like nature designed them to live and eating what nature designed them to eat. So, I don't want to confuse people with too many names and too many things. You go on Instagram and there's all these geniuses, I love them, they're all colleagues of mine, and some of them are friends of mine, and they break it down, but it's kind of confusing, I like to take a simpler approach and say, "You know what, imagine that you were living in nature, what would you find. What would you be eating?" You wouldn't be eating things from cans and bottles, and bags and boxes, you'll be eating plants and animals, so do that.

SHAWN STEVENSON: I love you. This is the answer, these are the type of things folks ask me about when I'm doing media, but the truth is, there aren't specific, just eat these three foods for liver detoxification, it's really an approach, it's a framework, which is to eat diversity. And also, that diversity is going to help with our gut diversity too, right?

DR. ALEJANDRO JUNGER: You know what I'm detecting, I'm sensing and seeing, witnessing is that... We say food is medicine, but people are thinking of it as medication, not medicine, so they want to do... They ask me all the time, what food is good for this? I say, well, they are of course, foods that have certain more value of certain nutrients than others, but it's not like you can continue your life as it is and eat more blueberries, and then you'll be fine, so you treat food as medicine, but not as medication.

And this obsession with knowing the... Every component of every food, so that you can have more of that if you're this or that. I think it's good when you already are doing the basic things, but if you take it isolated, then you're turning food into medication and not medicine.

SHAWN STEVENSON: To pivot from that sentiment, something else that is invisible, but very real, it's like it's a deeper translation of energy in our bodies all of this is really operating on these electrical impulses, and you being somebody who specialized in cardiology, you understand that better than most people, can we talk about the electrical nature of cellular communication of organs, even the gut.

DR. ALEJANDRO JUNGER: Really, we are electrical beings, because when you go down and start breaking down the cell into molecules, and the molecules into atoms and the atoms into subatomic particles, it's very similar to electricity, and so we are electrical beings. Everything is governed by electricity, the heart is governed by electricity, the way that you know if a cell is dead or alive is if there is an electrical difference between the inside and the outside, so electricity really is the sign of life. How do you measure if somebody's brain is working? An electroencephalogram. How do you measuring if a heart is working? An electrocardiogram. So, electricity is really what is... We are made of electricity, but we're also governed by electricity.

SHAWN STEVENSON: Can you share how this impacts the gut specifically, does this influence the movement of things, that electrical currency.

DR. ALEJANDRO JUNGER: So, one of the things that the gut depends on is the prostatic movement, when you eat the intestines will propulse food down by contracting the muscles around the gut, squeezing the food down. The segment below it relaxes, when the food gets there, it contracts again. Now how is that governed by the Neuroenteric system. By the brain in the gut. So how does the brain and the neurons work, through electrical impulses. Now, when that same nervous system in the gut is busy reacting to things, then it ain't going to have the resources or the attention to pull, and what is the result for a lot of people constipation, which is again, a global pandemic, and so hindering to our wellness because it's like not being able to take the garbage. Imagine in your house, if you accumulate the garbage and you never take it out, you won't be able to live, and that is what happens at a cellular level when constipation is the case, how is constipation resolved, by resolving the electrical activity in the gut, now but that is also connected to a lot of things.

SHAWN STEVENSON: Yeah. Let's just say there's a breaker on the amount of electricity that we can generate, and in our culture, a lot of that electrical energy is being used for digestion constantly, and the digestion of abnormal things, our body trying to figure it out and using so much of that electrical energy, could this be a reason why that energy, in a sense, it's getting siphoned for this and it's being pulled away from our ability to think logically. Our ability to have empathy. What do you think about that?

DR. ALEJANDRO JUNGER: There's two types of energy, just in a broad-spectrum chart, there's the energy that we generate moment to moment in our mitochondria by burning glucose and oxygen into ATP, and then there's the energy that a spiritual master Gurdjieff talks about as being stored in capacitors. And this is a little bit esoteric, but if you think about it, when you go to sleep and you wrote a book about this, what really happens, you recharge those capacitors, that there's no other way of recharging, we haven't come up with anything, any invention that would recharge whatever it is that we recharge when we sleep, and we know how important it is to sleep, so when you have a good night sleep and you recharge those capacitors, you wake up in the morning and yes, you're going to be generating ATP all the time, but it is these capacitors that have a very important function, and everybody's talking about the mitochondria and how to optimize their function, and a lot of people are talking about how important sleep is, but not a lot of people are talking about why sleep is that important.

So, when you... How it works, what's the mechanism behind it? And I invite you to read, Gurdjieff, there's an amazing book called *In Search of the Miraculous* written by Peter Demianovich Ouspenskii, who was a student of Gurdjieff and he describes the capacitors, and he describes how there's a big capacitor and there's a couple of other smaller capacitors and when you exhaust the big capacitor, the flow of energy switches to a smaller capacitor, the moment of the switch is when you yawn. That the yawning is caused by the switching of one capacitor to a smaller capacitor, now you are waking up with, let's say, 100 units of energy in that capacity, now that has to be distributed amongst all the systems, when there is one system that works more than it should be working, then other systems are going to suffer.

SHAWN STEVENSON: Mm-hmm.

DR. ALEJANDRO JUNGER: For example, when you have a big meal and you're digesting a big meal. As you said, the thinking system is depressed and you... And the body puts you to sleep because the body considers digestion a survival thing, because food wasn't as available all the time as it is now, so life depended on when you found food, being able to fully digest it and absorb it. So that's why in our evolution we gave... Evolution gave so much importance to the gut that it really takes over at systems even the thinking, even mentation. So, because these days, most people are digesting 24/7, we eat all day long, breakfast, lunch, and dinner, no other species in the planet does that. We are digesting all day long. Just go on the streets and grab 100 people at random in a modern city, and of course, there's a lot of homeless people now, so this formula may not work that well because homeless people maybe are not digesting all the time, like everybody else, but everybody is at some stage of digestion, necessarily, digestion is an energy-consuming process, it will steal energy from detoxification, from defense and repair, even from ambition, and that's why we are so dulled up and so anesthetized.

People are not thinking on their own, people are not ambitious, and I'm talking about not only ambition like in a light to be famous or to work and make money, I'm talking about ambitions to discover, to connect, to improve, we are dulled down because we are digesting all day long, I say that breakfast, lunch and dinner is killing humanity.

SHAWN STEVENSON: No longevity compilation would be complete without record breaking fitness expert, Chalene Johnson. She actually has the record, the Guinness Record for the most fitness DVDS ever sold. Her programs are probably in one of your friends and family's house, if you don't have them yourself. Alright, so she was popping all over the different infomercials, the fitness, and commercials very, very early on, and has been inspiring folks for many years. Now with Chalene, I know her personally, and she's just remarkable, she's actually one of my wife's best friends, and when I think about Chalene, I think about having it all... She's somebody who had that grind mentality and was just really working to become successful, but she had a shift in her perspective, and also her health is going to start to get pulled away as she's striving and striving and doing what our culture is telling us to do in order to be successful. And so, she made it a priority, her family, top priority, her relationship with her husband Bret, top priority, and created systems and structures, but it starts with the mindset that you really can't have it

all... You can have a successful business and have a great family life as well, you can have a great family life and successful business, and you can be radiantly healthy as well.

It is possible. Now, there's a system to it all because... And here's the key, no one is perfect, there are going to be things that are imbalanced from time to time, but we have to have more examples that it's possible, we have to have more examples to demonstrate how we can create a culture of good help for ourselves and our families, a culture of great relationships, a culture of financial security versus what we are seeing today, just these issues are rampant in our society, and it's not that these things aren't possible to have great health as a norm, it's that the way that things have been run and what we've been programmed to believe is possible has been part of the... It's like a seed that's been planted within our society's psyche, that these things are unattainable, these are for those people, but then you find out people's stories like Chalene coming from the D... She's from Detroit, she was like selling used cars or something, she was out there hustling early on, and just trying to find a way to make it happen, she didn't come from the best circumstances, but again, as we hear these stories and we listen, don't just listen with our outer ear, but listen with our inner ear, listen with our heart and hear the wisdom behind people's words and pay attention to their results, because for me, I don't really care how people's mouth move, I don't care what they're saying as much as seeing how their feet are moving.

I care more about results, show me, I'm from Missouri. You know, it was coming from the Show Me state. I need to see it. Alright, show me what's possible. Don't talk about it. Let me see, which are life results are like... 'cause it's one thing to have theory, it's another thing to be the walking talking representation of what's possible. And so, with Chalene, she's made a major impact in fitness and overall health and nutrition and business, she has a very, very big social media brand and marketing brand that helps folks to be successful in whatever their passion is, so within this... In this particular clip, she's going to be sharing with you this really cool insight, and it just makes sense if you look at our lineage and how evolved to achieve health and longevity, and this is concept of cross training your diet. Alright, now check out this incredible clip from The One and only Chalene Johnson.

CHALENE JOHNSON: We have this natural ability to want to stay alive, it's what our bodies want to do is keep us alive and keep everything the same, so homeostasis is what often will result in people gaining weight because they're like, Wow, I just went keto, and I lost all this weight, and I'm going to stay keto, 'cause I told everyone I was Keto, but then they start gaining weight and they can't figure out what's going on. Same thing with exercise, I've been doing the same exercise program and I lost all this weight to start with, and now I'm still doing this exercise program, I'm eating the same, but I'm gaining weight and realizing it's very much like something we've accepted in terms of fitness and that is just... You've got to cross-train, you've got to change things up, you've got to have cycles to your training so that you're always improving, you're always keeping the body guessing, and then taking a look at what our ancestors did, you know the food that was available in the winter, wasn't available in the summer and so you...

SHAWN STEVENSON: They were forced to.

CHALENE JOHNSON: They're forced to phase.

SHAWN STEVENSON: Yeah.

CHALENE JOHNSON: And so that's how we have been designed to thrive, and guess what's really fun about phasing is you... That next thing you're really excited about eating is right around the corner, you don't have to put your identity into a food, and I think so many people do that, they just want to put a stake in the ground and say, well, I'm vegetarian or I'm raw vegan or I'm Paleo or keto, whatever it is. And I think what's probably the best way for all of us to approach this is, this is what's serving me right now.

SHAWN STEVENSON: Yeah.

CHALENE JOHNSON: But then phasing your diet allows you to not have to experience that weight plateau or the weight gain that often comes when we try to do the same thing, day after day, week after week, year for year.

SHAWN STEVENSON: It seems so Captain Obvious.

CHALENE JOHNSON: Yeah.

SHAWN STEVENSON: But when you're saying this, I'm even thinking about how we put ourselves into these boxes and it creates so much dissonance between us too, and we can't just talk about the majority of things that work for all of us, 'cause it was just like Paleo for life fool.

CHALENE JOHNSON: Yeah.

SHAWN STEVENSON: Just throwing up our own little what set you claim it.

CHALENE JOHNSON: Right?

SHAWN STEVENSON: I'm keto. Well, you don't know this.

CHALENE JOHNSON: Right.

SHAWN STEVENSON: And so, it's just opening ourselves up and...

CHALENE JOHNSON: It's not fun to be around those kind of people, either the ones you're like, Oh well, you know they're going to start talking about their whatever, and it feels kind of judgy, and then most of us, we just don't want to be wrong, I don't have a dog in the fight, I just don't want to be wrong, I want to know what I should do. And so, we hang on dogmatically to these labels or way of eating when really, if we just approached our diet from the standpoint of like, "This is what's right for me right now".

SHAWN STEVENSON: So first of all, a big shout out to all the different frameworks, because all of these frameworks are valuable, Paleo, vegetarian.

CHALENE JOHNSON: True. Yeah.

SHAWN STEVENSON: Raw food, all of these things have great value and that they give us structure, they give us these things to pay attention to, but what we're really trying to... And especially with your new book is to communicate, is to not put yourself in a box, that may be hurting you.

CHALENE JOHNSON: Right.

SHAWN STEVENSON: And also, something that might not allow for you to experience, enjoy a greater level of health or to accomplish whatever your one with the 131, whatever your one goal is because of a diet dogma.

CHALENE JOHNSON: That's right.

SHAWN STEVENSON: Now again, not to say that they're not valuable.

CHALENE JOHNSON: Right.

SHAWN STEVENSON: Which I subscribe to many of those things.

CHALENE JOHNSON: Sure.

SHAWN STEVENSON: But we need to really listen to our inner guidance system first and foremost.

CHALENE JOHNSON: Yeah, yeah, absolutely.

SHAWN STEVENSON: I love that cross-training too, with cross-training your diet... I love it.

CHALENE JOHNSON: Yeah, yeah, it's like we've accepted that from a fitness standpoint, we just know you've got to cross-train, you've got to phase your diet, you've got to... Even just thinking about how athletes train and they do it in cycles, everything happens... Everything happens in

cycles. Our sleep happens in cycles, our hormones happen in cycles, you think about farming, everything happens in cycles when it comes to life, and that's how we were meant to thrive, it just makes sense, it adds order, and it's so freeing to have that approach.

SHAWN STEVENSON: Yeah.

CHALENE JOHNSON: Because I think so many of us, we don't know that we are smart enough to figure this out, we really are.

SHAWN STEVENSON: Absolutely.

CHALENE JOHNSON: And we have permission to...

SHAWN STEVENSON: Yes. Oh, my goodness, I love you so much. And by the way, so you do incorporate and encourage and in part of the protocol that not just diet phasing but macro phasing.

CHALENE JOHNSON: Mm-hmm, yeah.

SHAWN STEVENSON: So, talk about that a little bit.

CHALENE JOHNSON: Yeah, so in each one of the phases are three phases in the 131, and each phase is designed specifically to target one mode of health, so that ultimately what we're doing is rebuilding your gut health, helping you fix your metabolism, helping you to understand how your body works so you can really have the most energy and feel your best, but you also have to experiment with these things with some structure, so the third and final phase, we do something that's called macro phasing, which is, if you're familiar with carb cycling, it's not carb cycling, it's literally macro phasing so that you teach your body how to be metabolically flexible.

SHAWN STEVENSON: Yeah.

CHALENE JOHNSON: So that you can have days where you're eating more carbohydrates, and then days where you're maybe cutting down on carbohydrates, eating a diet that's healthy and fats, and then a day that's like really lean and filled with tons of greens and vegetables and fruit, and when you teach people through the process of these three phases, by the time you get to that third phase, you can do that, and your body knows what to do with that energy source, not just stored as fat, and so we call it macro phasing, and that requires a little bit more structure. You kind of have to know what you're eating. And I think... Sometimes people are like, I don't want to count, I don't want to know, I don't want to track. And I agree, I think we can get too obsessive about that, but from time to time, you got to look at your bank account, you can't just spend... And every time somebody does that, and myself included, I try to do it, as I suggest in the book, at least once a quarter, I'm going to spend a couple of weeks just tracking, because I'm always way off. When I do that, I'm like, oh my gosh, I didn't realize I really let things slide, we all do.

So, it's no different from just checking out of your bank account every once in a while, you've got to have finite amount of energy, and by doing a little bit of tracking using a simple app like My Fitness Pal, you just kind of know, Okay, here's where I'm at.

SHAWN STEVENSON: Yeah.

CHALENE JOHNSON: But I don't want people to get caught up in like... You probably know people like that, they're like, oh, I'm one gram over, and they're just miserable to be around, it's like let live.

SHAWN STEVENSON: Yeah.

CHALENE JOHNSON: Like this is life and your body is going to balance everything out for you.

SHAWN STEVENSON: Yeah, it what it does.

CHALENE JOHNSON: That mindset, it's so much more freeing to look at food as fuel and your friend and medicine it can fix it.

SHAWN STEVENSON: Absolutely, because stress, even though it has zero calories, it can really cause some issues with your body and how it's even dealing with that food when you're so... Obsessive about that one gram or whatever the case might be. So, it's just finding that balance. But these are all things that we have to coach. We have to talk about because we've been so conditioned, it just depends on the person's story, because some people listening, they were just like, "I wouldn't be that upset about going over or whatever, this..." Some people are.

CHALENE JOHNSON: Some people are.

SHAWN STEVENSON: And that's just one way of being in my head of serve them because we tend to do things that do work for us, but then we get so attached to them that they cause dysfunction. And that's what, again, what I really love about your approach is looking at these things, let's talk about them, and here's some delicious food, as well.

CHALENE JOHNSON: Yeah, exactly.

SHAWN STEVENSON: All the information about the protocol itself is in the book, but I want to talk to you while I have you here, I want to definitely cover this, and this is something you mentioned and I think it's so important that there are going to be setbacks to expect them and prepare accordingly, and this is something I think a lot of us don't get because we're looking at, I'm going to start next Monday, I'm going to start when I get back from a vacation, I'm going to do this 30 days, I'm going to do this 60 days, whatever... Something's going to happen at some point. For the vast majority of us, it might be kid gets sick, it might be some car problems, it might be whatever, something's going to happen, that if we can just start to talk about this, that something is going to happen, setbacks are going to happen, but we can prepare for them and be ready when they do.

CHALENE JOHNSON: And not throw in the towel, so two things that drive me crazy. Not a fan of the term, I cheated. I think that's a term that we should use for people who break their marriage vows, I don't think we should use the word cheat for someone who decides to eat a cupcake or enjoy a glass of wine. That's number one. So we have to get rid of this, "Well, I

messed up, so therefore, I'm done and I blew it, I failed," because we don't look at other important areas of our life that way, like your faith, for example, if you have a week where you're like, "Gosh, I haven't spent any time reading the Bible or thinking about who it is, I want to pray over." Whatever it is, you don't go, "Well, I'm done for now until I decide to pick this up again." It's a journey and you're going to have ebbs and flows, and I also think it's really important that people understand this is not about... When I say this, being healthy, it's not about perfection. You know, someone said to me the other day, "Do you eat anything processed?" I'm like, I'm a human, of course I do.

But I also, I just evaluate it and I think about how it made me feel, and I'm trying to eat as whole as possible, but there's going to be weeks when I'm traveling and I can't do it as well, but I don't say I'm off of health, I'm on health, I'm on this journey, and it's just like a marriage, you're going to have weeks where you feel a little disconnected, but you're not out of the marriage, hopefully it's about... Just thinking about this is, this is part of who I am. And there's going to be highs and lows and to just remove any shame and guilt and give ourselves grace because this is about trying to live longer and live better, live fuller and be happier.

SHAWN STEVENSON: Alright, I hope that you enjoyed this longevity compilation. And you just heard from New York Times Best something author, Chalene Johnson. When I think of Chalene Johnson, I think of a queen bee. Now, here's a little fun fact about queen bees, queen bees live on average one to two years, two years, whereas worker bees live an average of 150 to 200 days in the winter, and only 15-38 days in the summer. Now, we'll just average those numbers out, I will say that the worker bees live about 100 days, that means the queen bee lives more than seven times longer than the worker bees, the queen bee is on something special. What's going on there? How in the world does the queen bee have such longevity?

Well, a developing queen bee is exclusively fed royal jelly, royal jelly, it's also tied to multiple data sets now, connecting it with longevity. A study published in Advanced Biomedical Research found that royal jelly has the potential to literally improve our cognitive function, improving our spatial learning, our attention, and our memory, in addition, it's been found to have anti-microbial, anti-tumor and anti-inflammatory properties. Royal jelly has also been found to facilitate the differentiation of all of our different types of brain cells, and to top it all

off, researchers in Japan just recently discovered that royal jelly has the power to stimulate neurogenesis in the hippocampus, that is the creation of new brain cells and the memory center of the brain, that's longevity.

We want to have, of course, great physical health, but we also want to have a great, healthy high-functioning brain as we get older, we're just told his tale that as time goes on, you're just losing brain cells left and right, but we now have peer-reviewed published data affirming how we can actually generate new brain cells, and royal jelly is one of the rare foods that helps us to do it. This is why before many episodes of The Model Health Show, I have royal jelly from Beekeeper's Naturals and their incredible nootropic called B.Smart. Not only does it have this remarkable royal jelly, but it also has one of my all-time favorite other things, which is bacopa. A randomized double-blind placebo-controlled human trial published in 2016 found that after just six weeks of use, bacopa significantly improved speed of visual information processing, learning rate, memory consolidation and even decreased anxiety in study participants, remarkable combination with royal jelly and bacopa.

One of the really cool things about royal jelly that it contains a compound called 10-HDA as well as AMP N1-oxide, which are both responsible for stimulating neurogenesis. Now again, neurogenesis is the process of generating new neurons in the brain, this happens specifically in the area of the responsible for learning new information, storing long-term memories and regulating emotions.

Go to beekeepersnaturals.com/model, you're going to get 25% off at check-out, it's going to be automatically taken off, 25% off at check out. Go to B-E-E-K-E-E-P-E-R-Snaturals.com/model. Again, 25% off, check out B. Smart, I know you're going to love it. It's one of those things proven to help extend not just our lifespan, but our health span from us to the queen bee. Next up in our compilation, we have a Professor of Genetics at Harvard Medical School, Dr. David Sinclair, he's a New York Times best-selling author of the book, Lifespan. He's been featured everywhere from 60 Minutes to The Today Show, to The New York Times, Newsweek, and many other major media outlets. In this clip, he's going to be sharing with you this important concept of eating stressed foods and also how to utilize the power of epigenetics, check out this clip from the remarkable Dr. David Sinclair.

DR. DAVID SINCLAIR: We still don't have a complete human genome because these missing pieces are very repetitive and there are also little genes that were missed by the computer algorithms in the 2000s, which we, in my lab and others, we've gone back and we've compared humans to chimps and macaque monkeys and these little genes, there are thousands of those, we think, protein swimming in our bloodstream, that control health and longevity. We have a lot to learn about the genome, but what people have mostly missed is the epigenome, 'cause that's a lot harder to read, you can read a code that's a one-dimensional program, but to read something three and even four dimensions, if you include our lifespan over time that required another 20 years of innovation, but we now have the tools where we can...

This is really amazing for something that costs, I think is a few thousand dollars, but it's the size of a candy bar, it's about that big. In my lab, we can do your whole genome, instead of for a billion dollars, I could do it for maybe a couple of hundred bucks. Now, take me a couple of days, but we can also now read the epigenome and tell us where those loops are, where those bundles are, and also measure the chemicals that accumulate on our genome that tell us where the loop should be and how old we are, literally how old, we are biologically, so throw out the candles, who cares about candles? It's those chemical marks that seem to determine our actual age and how healthy we are.

SHAWN STEVENSON: This is so cool. So, I'm thinking in terms, we need to stop celebrating our chronological birthday and celebrate these biological birthdays because they're different.

DR. DAVID SINCLAIR: Oh, they are, but the good news is you can't really turn back your chronological age, you can't release... Well, you can lie about your age but it's not going to help. But you can, what we've discovered is we can now dial-up aging, speed it up in animals, and now that we know how aging we think we know how aging works we can also reverse it. So that's what I wanted to tell the world about 'cause that changes how you think about your life.

SHAWN STEVENSON: Absolutely, I couldn't help but think about myself, in my experience, when I was 20-years-old, I was diagnosed with a condition that's usually attributed to people who are much older, a degenerative spinal disease, degenerative disc disease, and my physician said I

had the spine of an 80-year-old man, not a healthy 80-year-old either, and to get that bill of goods when you're just 20, of course, it can do a big number on your psyche, but he also said this was incurable. I've created the situation, and there's nothing I can do about it. And we can get into the placebo effect and all that stuff, but the bottom line is, it took about two years before I decided, let me try to do something about this, and I got a scan done, it's probably been about a year ago now. And my spine looks younger than the age I'm at now. Right, how is that even possible? And this is what you're talking about in the book.

DR. DAVID SINCLAIR: Well, that's the power of the epigenome. You're not changing your genome, you get that from your parents, but you can change your lifestyle, you can change it tomorrow, and you did, and you were in a back brace as well, you threw that off.

SHAWN STEVENSON: I had back brace, yeah.

DR. DAVID SINCLAIR: It's impressive, but it doesn't surprise me. Really. And that's what I want everybody to know. And you're doing a great job telling the world is that you can change your life, you can change your health just by how you live your life, even without medicines, and it's pretty easy to do, but it's super powerful. And the message that I'm bringing is, thanks to work in my lab and dozens around the world, we've also figured out, we think why these things that you're doing and people who are healthy, why they work, 'cause they're turning on these defensive genes, these longevity genes that are in our bodies, but they don't get activated unless we do the right things, eat the right things, eat at the right time of the day, we get enough sleep, we exercise and work the right way. Then these genes come on and they protect us, and they don't just slow aging, we see that they reverse many aspects of aging as well.

SHAWN STEVENSON: Yeah, and I want to talk about some of these things specifically, but before we do, I really want to give people, I think is a brilliant analogy of our genes functioning sort of like keys on a piano. So, can you share that analogy?

DR. DAVID SINCLAIR: Yeah, sure. So, the genes are like a piano with 20,000 keys, and imagine there's a pianist that's perfectly young and skillful when we're young. And this is our cells are able to read the right genes at the right time and place, so that's why when we get a cut, we

get a cold, we recover very quickly. But what's happening is the pianist in each of our cells starts to lose her eye sight, starts to become a little bit demented and initially plays a few of the wrong keys, but if you're listening not too intently, it still sounds great, but over time what's happening is then she's losing her eye sight and can't see the music, and she's banging the wrong keys, eventually, it sounds like crap, and it's a cacophony and everyone's walking out of the symphony or the performance. That's what aging is, our cells are losing our ability to read the right genes the right time, 'cause these loops and these structures that we think we can now reset, so we can actually, we think go in, give the pianist or even get a new pianist or give that pianist glasses and new music, and within just a matter of weeks, now you get the symphony back again and cells work like they did when they were young again.

SHAWN STEVENSON: Wow, so cool. And can we talk a little bit about... So how does the epigenetics play into that whole equation?

DR. DAVID SINCLAIR: So, the epigenetics are... It's brand new, so this is science that you will not really read about anywhere else, the epigenetics are laid down during development, so as we're embryos, one of the miracles of what exists on this planet is you can take a fertilized single cell and make a baby that comes out with 26 billion cells that all know what they are and how to work and work together. But over time, those instructions in each of those cells, not the genes, but the ability to read the right genes is lost and that gets accelerated in part by not activating our longevity genes. Well, when we're young, we have a lot of activity, we don't need exercise as much, but as we get older, they become complacent, if we're obese, if we sit around all day... You've written a book; I've written a book. We know what happens to our bodies. They lose activity, it's brutal, and eventually the pianist has lost her ability to play it.

But what's great about what we've discovered is that you can make sure that those keys the pianist stays young. She doesn't need glasses for much longer, and then what I didn't know until about a year ago, and it is described in the book, 'cause I was writing it as we were making these discoveries, is that there's a backup pianist in ourselves, every one of them that tells those loops and those bundles what they were like when we were babies, and we can access those just by turning on a set of three genes out of those 20,000 that sets in motion a program to reset the entire cell.

SHAWN STEVENSON: Wow, this is so cool, so cool. So would the pianist be function, sort of like the epigenetics?

DR. DAVID SINCLAIR: Yeah, the pianist is the epigenome, and the piano is the genome.

SHAWN STEVENSON: So, it's determining which keys are getting played, which genes are getting expressed and which ones aren't?

DR. DAVID SINCLAIR: That's right, and every cell has to do that because the nerve cell in your brain has been there since we are young, and it's going to stay a nerve cell. If it starts behaving like a skin cell, we're in trouble, but that's what I think aging is. If we take an old mouse 2-years-old, and we look at its skin, its skin is going to look a lot more like a nerve cell, and we have to remind it, go back to being a skin cell, you fool.

But we can now do that. We have these reprogramming factors, reprogramming genes that tells the epigenome how to restructure itself and read the genes as though it was young, and cells remember what they should be doing. But old people we see, or at least in old mice, we see that there are a cacophony, a mess, a mélange of different cell types instead of being rigorously your nerve cell get back to being a nerve cell. And one of the amazing things that we did by resetting the eye, so we use the eye as one of our test tissues. We can take an old mouse that's a year old and it doesn't see very well, we can actually measure mouse eyesight, a number of ways, we can either measure the electrical impulses or we can see if they can see moving objects, and in both those cases, we can by delivering these reprogramming epigenetic reprogramming genes, we can tell the nerves at the back of that old eye to function again, to play the right keys, to turn on the right genes to be young, they do it, and just a few weeks later, those mice can see as well as they did when they were babies.

SHAWN STEVENSON: Fascinating, that's so fascinating.

DR. DAVID SINCLAIR: And that's a complex organ.

SHAWN STEVENSON: Yeah Absolutely.

DR. DAVID SINCLAIR: We are not talking about just skin, an eye is probably the most complex part of the body, while the brain is probably more complex, but this is a big deal. What we can do right now is pretty simple, so you mentioned nutrients, first of all, we have a theory that bears out, which is eat foods that are stressed, stressed out, which is a weird concept, but we do it naturally, we drink... Some of us drink red wine, which is a stressed grape before we pick it, we often eat colored food, so spinach is a dark green food, there's blueberries which are dark, the whiter ones are not as good. So why is that?

Well, stressed food produces a lot of what we call xenohormetic molecules, and I'll explain what that means, it's a table word we coin, but xeno, X-E-N-O, means from other species. And hormesis is a very important word. You got to remember the word hormesis, 'cause every day you should think about it, hormesis is what doesn't kill us, makes us live longer. And it's a term that means you've got to get your body out of its complacency, you've got to trigger those defenses, those longevity genes. So xenohormesis is, you don't have to only run and eat well at the right times, but you can also get these molecules from the right animals and plants, but particularly plants that are stressed, 'cause when plant are stressed, they're making these molecules of health for their own benefit, they're trying to survive, they're turning on their longevity genes, we forget plants have longevity genes too. So, a stressed plant will make these colored molecules to protect from UV and dehydration when we eat them, they trigger our own body's defenses and you can get the benefits, so that's nutrition, colored foods, stressed foods, organic is stressed, you don't want the perfect lettuce that's been, not put any stress.

And we need to do more of that, we need to let our plants stress a little bit before we eat them, and then nutrition... There's a lot of nutrition. Now, there's a debate every week about what's good, what I do is on part three of the book I listed out. So, I truly believe that we've got to mix it up, the secret is not so much what we eat, but when we eat and also what we eat should have variety. So, I don't say only meat, I don't say only carbohydrate, I eat a little bit of everything. I try to avoid big amounts of meat because there's one of these longevity pathways, remember I said there are three main ones, one of them senses how much meat we eat and amino acids, so you need to give it time to rest and settle down. So that's important,

so often I'm not eating a big steak, but I will eat meat if I've worked out 'cause our body needs amino acids, but that's it. Make sure that you... Actually, what's more important than what you eat is when you eat...

How's that for an interesting thing to say? And what we've discovered with my collaborators, and I need to give a shout out to one of my friends at the NIH National Institutes of Health, Rafael de Cabo, he studied 10,000 mice. And what he tried to figure out was, is there a diet that makes them live longer? And he mixed combinations of carbohydrate, protein, and fat, and was hoping to see finally what works. And he found out they all did the same thing, they all had short lifespans. But there was a one group where he only gave them the food two hours a day instead of all throughout the day, and they lived about 20% to 30% longer.

SHAWN STEVENSON: Wow. Love it. Wow.

DR. DAVID SINCLAIR: Yeah. So, if there's one thing, I could say that I've learned after reading 10,000 papers and studying this my whole life, it's eat less often, that's it. So that's the key. The take home message here is, you want to trick your body into thinking times are tough, adversity, hormesis. So, you can tell your body through eating stressed foods that times are going to be tough 'cause your food supply is dying. You can trick your body into thinking that you need to be running away from saber-tooth cats, 'cause you get on a treadmill, or you run, or you lose your breath, or you get hungry during the day, and that also tricks your body into thinking, Whoa, I need to fight back against adversity, I need to fight against diseases. And the long-term effect of that, the benefit, is longevity.

SHAWN STEVENSON: To close out this longevity compilation is one of my favorite people in the world. This human being is absolutely bubbling with energy, 75 years old, and he can run laps around people have of his age. No joke, I am not exaggerating by any means. He's playing tennis two to three hours a day. He's teaching, creating courses, writing books. He's got 15 books that he's authored. And I'm talking about none other than Dr. Jonny Bowden. He was actually the inspiration for doing this episode today, because I want to encourage us to learn from people who've achieved the thing. He's just getting started. He's just getting started. If you talk to him and you see how he moves in the world, man, it's remarkable. Whereas people

who are decades younger are so far behind as far as their health outcomes, and this is largely because of the culture of sickness that we're existing in. And he's one of the people who's leading the charge in helping us to change this narrative.

In this clip, he's going to be sharing something that is a huge key to longevity, which is not dying, alright? Not dying from our leading culprits, like heart disease, like obesity. Obesity is now attributed to hundreds of thousands of deaths, comorbidities every year here in the United States. Again, he's going to be sharing with you something that is helping us to avoid dying early, prematurely. In this clip, he's going to be sharing with you how to reduce your risk of heart disease and obesity by regulating a specific hormone that's controlled by our diet and lifestyle. Check out this clip from the one and only Dr. Jonny Bowden.

DR. JONNY BOWDEN: Well, we have really been laboring under a lot of misapprehensions when it comes to nutrition. You know, my tag line is the nutrition myth buster, and I never have a shortage of work to do when it comes to the myths about human nutrition. The American Heart... Just to go down a fast rabbit hole, the American Heart Association a couple of months ago released their new guidelines. Well, that will keep us busy for six months. I mean, don't eat tropical oils and make sure you're eating plenty of whole grains. I mean, it just goes on and on and on with the same tired talking points that have made us fat, sick, tired, and depressed at epidemic weights. So, we could talk about that. But in terms of food and nutrition, we have to really unlearn a lot of what we've learned in the '80s and '90s. I didn't... I think Authority Magazine interviewed me, right? And like, five ways they wanted...

They have a series of five things you need to know about whatever the subject they're interviewing. And in my case, it was five things you need to know to maintain a healthy weight. My number two thing, after the first one was to eat real food, that was number one, but the second one was, forget everything you learned about nutrition in the '80s and '90s. Everything. Breakfast is the most important meal of the day. Well, maybe not. We should eat low fat diets. Well, definitely not. We should stay away from tropical oils. Yeah, no. So there's a lot of things that we have to really un-learn about that. We were... I was a trainer at 1990 at Equinox when they opened, as we talked about, and the advice we gave, mea culpa, I was one of the people

telling people, breakfast is the most important meal of day, eat every two hours, snack, grace, mini meals. Well, that's crazy advice.

Now, breakfast may be the most important... And this is where we need to get into, how you personalize this information, because there are truths in there. If you're a kid in Appalachia and you're going to school on an empty stomach, there's good studies that that breakfast really makes a difference in your performance, your attitude, your attention, your behavior, all those things. So yeah, as a general rule, when you're trying to talk about people who are going to school with bag of... Like in the Wire, they'd go off with a bag of Doritos and a Pepsi for breakfast, yes, yes, breakfast is very important, you know? But for people like us who have the luxury of trying to get top performance out of our bodies and actually have the luxury of finding organic food or finding gyms and exercise things and climbing walls and all these things that are really not available to everyone, for us, it may very well be that breakfast is the worst meal of the day.

And many people have found that who have experimented with intermittent fasting. This has been one of the things I discovered over the pandemic, and I'd love to talk about that, because it's a huge thing for not only energy, for weight control and metabolic health, something very, very important. And what I discovered was that not eating sometimes can give you more energy than eating, and I think a lot of people have found that by themselves. They have noticed that. Way before your time, there was a book called The Carbohydrate Addicts Diet. It was very big in the '80s, and you can look it up, The Carbohydrate Addicts, they had a whole series of books, and it was developed by a doctor... Two... One was a PhD, and one was an MD, and the PhD Rachel had a weight problem, always had a weight problem. And she was following all that advice, and she was eating two... Five meals a day and starting with breakfast and all that and had cravings all the time and just could not manage her weight.

And the way they discovered this carbohydrate addicts diet thing in the '80s, by the way, was one day she didn't eat until six o'clock. She just had a very busy schedule on her PhD program, whatever it was, and she didn't manage to eat, and she noticed that not only wasn't she very hungry, but she also didn't have a lot of cravings, so she ate this meal at 6 o'clock and she notices the next day that her weight's down and bloat is down she's, I wonder what this could

be? Anyway, with a lot of self-experimentation, they came up with this notion of carbohydrate addiction. And much investigation later, they realized that insulin was playing a role, this is way... This isn't even... This is way before this became part of the conversation for everyone interested in health, and no one even knew what insulin was in the general public then.

But they realized that what was happening was that that pattern of eating was constantly elevating insulin, which as you know is the fat storage hormone, it's also known as the appetite hormone. So, it really does not only create its own cravings, but it also tends to make you store fat and make it very difficult to lose it. And by eating less or by eating at precise times a day, she was able to control it. She didn't even know what it was she was controlling until they started looking into it more deeply, and they came up with this idea of eating only protein and vegetables during the day and having one meal with carbohydrates at night. That is probably a very dated concept, but the thing they were on to is not dated. The thing they were on to is how do we manage our insulin? And if you don't manage your insulin, you're not managing your metabolic health, it's that simple.

I actually, in writing the fasting course that I wrote recently, I investigated a lot of other people's work in fasting, including Jason Fung, and one of the things he does in his program is to tell people, I don't care how many carbs you're eating, I don't care how much protein you're eating, I actually don't care how many calories you're eating, I want to know one thing and one thing only about your food, and that is what effect does it have on your insulin? They actually say that, and that's actually something that I've adopted when I do occasionally coach somebody or work with someone privately. And it's not count carbs, there's one thing we want to know. And unfortunately, because we can't measure insulin, we have to use a surrogate, which is blood sugar, and that's why I always have clients, if I possibly can get them to do it, to get a continuous glucose monitor, 'cause that's our surrogate, for what's really happening to blood sugar and insulin.

I wear them periodically every couple of months, I get one of them, put them on, just track it for myself to see what's happening with blood sugar, because this is really the key to metabolic health that we're talking about right here. And to bring it back to energy, which is what you asked about in the first place, it's also the key to energy.

SHAWN STEVENSON: Listen, you are one of the foremost experts in the world on this topic, and now you've shifted things to specifically... Let's focus on the insulin response for you as an individual versus what this cookie cutter thing of you know, it's supposed to be this way or that way. Now, you said, this is one of the most remarkable things that has been said on this show...

DR. JONNY BOWDEN: What's that?

SHAWN STEVENSON: Now listen, I'm going to say this again...

DR. JONNY BOWDEN: Okay.

SHAWN STEVENSON: But we have to keep this in context...

DR. JONNY BOWDEN: Okay.

SHAWN STEVENSON: And understand how profound this statement is. You said that not eating can give you more energy than eating.

DR. JONNY BOWDEN: It can.

SHAWN STEVENSON: Now, this again, let's keep this in context, and I want to dive into this more...

DR. JONNY BOWDEN: Okay.

SHAWN STEVENSON: Because what both of us were taught, I paid for this education at a conventional university...

DR. JONNY BOWDEN: And I taught people what we were going to say.

SHAWN STEVENSON: It's a very superficial look at what food is in calories. We look at calories as energy. If you want to have energy, eat calories, eat food. And it's looking through things with tunnel vision because it's negating human digestion and the fact that, of all the things in our lives that require energy, that siphon energy, it's eating. When we're putting food into our system, it is a very energy-intensive process and requires so much of our body's attention to turn that food into human tissues. It's miraculous, and it's not like David Blaine coming along [chuckle] and doing something, it's like, it's an actual arduous process because we're making food, whether it's a wild caught salmon or Twinkie, it's turning that into human tissue and "energy," specifically in the form of this energy storage. So, for you to say that not eating can potentially give folks more energy than eating, that's a very profound statement.

DR. JONNY BOWDEN: Well, think about it, and if you've ever done a fast, even attempted to do a fast and you managed to stay away from food for a day, what happens in the second day? Everybody reports this, you're flying off the walls with energy. I mean, they're clear and their minds are bright, and they're like, Now, you can't... Shawn, obviously, we have to put it in context, this isn't a rule for all time. Don't walk away and say that crazy nutritionist said, if I don't eat, I'll be fine... I'm not saying don't eat all the time, we're talking about how sometimes not eating can actually stimulate your metabolism in a way that you actually perceive yourself as being way more sharp, way more focused, way more optimistic, way more engaged.

And you know, if I'm going to do a big thing like the Dr. Oz show or The Model Health Show, I'm not eating a big meal before I come on there. Would you? Would anybody? You want to get there... You want to be there lean, mean, and hungry and on fire. So, a big meal is just going to make me want to sit like back after the Thanksgiving meal and of course, everybody gets tired, because as you say, there's a huge amount of energy required in digestion. I'm not suggesting to people that they don't eat. I'm saying that some of the tried-and-true mantras that we gave people in the '80s and '90s have turned out not only to not be true, but sometimes to be counterproductive. Eating every two hours is a really stupid idea. Maybe there are exceptions who are Olympic athletes, or football players or people who are training and doing...

I'm talking about for the average person, all that's doing is number one, constantly requiring more insulin, so insulin is always on call, it's always up there, it's always got to get rid of the

sugar in your blood stream that comes up because you just ate every two hours, and you can't go an hour without a power bar. And number two, it prevents you from using your fat stores as energy, because you're constantly giving it new fuel, you're eating a Power Bar every two hours, why the hell would it go to your fat stores? So, all of that has to do not only with energy, but with digestion and weight loss and weight gain. And I hate to keep coming back to insulin resistance, but I honestly believe this is the other pandemic that nobody's talking about. And I know we're not going to touch too much the situation in California and with COVID and stuff, but if you look at the statistics of younger people who have been felled by this virus, 61% of them obese.

And I would argue that they say, oh, they had no known condition... They had no previous conditions. I'm not so sure. 80... The statistics on this in the United States, 88% of people have some degree of insulin resistance. How is that no pre-existing condition? So, it's a very important thing to me to alert people in our book, *The Great Cholesterol Myth*, what we found, when really looking at this is that insulin resistance is a better predictor of heart disease than cholesterol is, way better. And they've known this since the '70s, and insulin resistance can be treated, prevented and reversed with diet and exercise and lifestyle. Dude, you don't need a drug.

SHAWN STEVENSON: Thank you so much for tuning in to the show today, I hope you got a lot of value out of this. If you did, please share it out with your friends and family, of course, you can tag me, I'm @shawnmodel on Instagram and Twitter, and at The Model Health Show on Facebook, and you of course can send this directly from the podcast app that you're listening on, it really does mean a lot. And if you get to do so, please pop over to Apple Podcast and leave a review for The Model Health Show, and you can also rate the show now on Spotify as well. And one other thing, make sure that you are subscribed to The Model Health Show on your favorite podcast app. Hit that subscribe button so that you don't miss a thing. We've got some incredible master classes and epic interviews coming up very soon, so make sure to stay tuned. I appreciate you so much for tuning in. Take care. Have an amazing day. I'll talk with you, soon.

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