THE MODEL HEALTH SHOW

EPISODE 478

How Clothing, Cooking, & Culture Controls Our Movement

With Guest Katy Bowman

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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, this is one of my favorite people, one of my favorite researchers, and this conversation is so powerful and important right now. Many of us are well aware that we've experienced an epidemic of sedentary behavior in the recent decades, but that level of sedentary behavior has jumped up even higher in association with all the different mandates and shut-downs, and social isolation has just gotten a little bit worse, but we have the power to really make some shifts in this. And conversations like today and learning from folks like our special guest, really just add fuel to the fire of how powerful this is, and also how simple it is to be able to access some of the benefits of movement. And we're saying movement specifically, and not just exercise, because life is movement, there are so many different things going on, even with your... When you're sitting and being "sedentary", there is still a lot of movement taking place.

And we're going to talk about some of the science behind that as well, so this is a powerhouse episode, a powerhouse conversation, look forward to having your mind blown a couple of times. And of course, in the context, it's not just a sedentary behavior, it's obviously, there's been a skyrocketing intake and consumption and purchase of processed foods recently. I was right on top of the data in the first couple of months, looking at processed food purchases and analyzing the data specifically for processed food manufacturers and seeing their numbers just shoot up, once social isolation and the mandates and the quarantines took place, and there was even one of these major companies, that was actually about to file for bankruptcy and COVID saved them, they were able to get a big jump in their product consumption and purchase, and they just been rolling right along. So we already had a cultural phenomenon taking place of having a heavily processed food diet and it just went up even more. And the question is, how do we shift this? Well, it's one thing to just say, "Stop eating Cheetos, let me see your fingers, show me your fingers, have you been in that bag?"

Just one thing to say, stop doing the behavior, it's another thing to understand the biochemistry behind why we're drawn to these things in the first place, food manufacturers have spent hundreds of millions of dollars every year, just on average, tens of millions of dollars in creating exact precise formulas to be able to kind of manipulate our brain chemistry, and our flavor sensors. So we've done some episodes recently in talking about the science of flavor and how these different things work, but the bottom line is that any kind of intense flavor, we have a natural evolutionary apprehension towards any one flavor. This is why even if you start a meal, it's just delicious, real food meal and you're just... You're tearing it up, but it comes to a point where it's just like, "I've had enough," your body will start to tell you. But with some of these newly invented food-like products, you can just keep eating and eating and eating, you

can run through a whole bag that might say, "This is a 1,000 calories of these particular chips," but it can seem as though you didn't really eat that much and eat a whole family bag of something, or a whole family package of cookies, for example.

And I'm not saying that I've ever done it, but I'm not going to say that I have not. Alright, and this is because of this vanishing caloric density, which is where we have this experience of like, we chomping into a morsel of food, we'll say a morsel of a goldfish cracker or a potato chip. Let's just go ahead and use sour cream and cheddar, alright, the Lay's sour cream and cheddar. I was there when they hit the streets, it was hot, they were hot when they came out, I was right on top of them, I was already a fan of the sour cream and onion, then you had the sour cream and cheddar, with the Ruffles ridges? Come on. So you eat that chip, and it seems like you got to do some mechanical work, right? It's crunchy. But within a couple of chomps it disappears, it turns into almost nothing. And so your body itself, there are mechano-sensors in your gut that also sense the weight of food, helping to signal the release of satiety hormones and shutting off hunger-related hormones, and many other metabolic processes, but the bottom line is, we don't get any physical substance from a very calorically dense thing, so it kind of tricks your brain in a sense to not really thinking you've consumed as much as you have, right? So manufacturers are working hard to do this, how do we take back control of our biochemistry, how do we take back control of our palate?

Well, a study published in the peer-reviewed review journal Appetite, found that chlorophyll can assist in weight loss and reduce the urge to eat hyper-palatable foods. So there's something about chlorophyll that helps to kind of heal this mechanism that is driving us to eat more and more of these hyper-palatable foods, that are... They are designed, they're not something that's naturally occurring, they are focused, designing these foods, orchestrating man-made experiments to make these foods hyper-palatable, chlorophyll helps to reset this association. And some of the most chlorophyll dense foods... This is the thing about real nutrition is that it doesn't just have chlorophyll it has other things as well, that can help to heal and to really optimize what's going on with the metabolism on multiple levels. One of my favorite chlorophyll dense foods, where it gets its name from is Chlorella. It's one of the most chlorophyll dense things ever discovered and Chlorella, in addition to the chlorophyll content, it also contains lutein and zeaxanthin, and these are two carotenoids that are proven to protect your eyes and lower the risk of macular degeneration. That's helpful.

Another double-blind placebo-controlled study published in Clinical and Experimental hypertension, found that Chlorella was also able to help normalize blood pressure of test subjects with hypertension, being used as an effective treatment for hypertension. I can go on and on and on. There's so many benefits when we have these whole-food versions of these foods, but being real, going from sour cream and cheddar Ruffles to eating chlorophyll, that's a big jump, it's a big jump. But what isn't a big jump, and how do we engage this and how do

we use this in a format that folks are more familiar with? I also grew up drinking Kool-Aid or we were kind of broke, so we had that Flavor Aid, alright. So I grew up with that template of this packaged thing, mix it with water, add sugar, all that kind of stuff. We're upgrading that now, because now we can have concentrates of chlorophyll, concentrates of Spirulina, concentrates of some of the most chlorophyll dense foods in a form that you add to water, with other clinically proven super foods, like Ashwagandha, all combined, but in a way that tastes good. This is the key, it has to taste good.

If we're talking about reducing this connection with hyper-palatable foods, we still have to enjoy the process and actually have something that tastes good. And so this is why I love Organifi so much, I think it's really a game changer, and one of those reasons it just adds to the intelligence of our bodies and our biochemistry, because food isn't just food, it's information. And so the Organifi green juice is just like... For me, it's a staple, alright. Spirulina, one of the most dense protein foods ever discovered, if not the most dense, it's about 70% protein by weight, rich source of chlorophyll, but also Phycocyanin, which we've got clinical evidence now that it stimulates stem cell genesis. The list goes on and on. But also it tastes good without all these crazy added sugars, using low glycemic, non-glycemic natural sweeteners, and coconut, we got coconut water in there, it just... It has this feeling of cleanliness as well, when you drink the Organifi, and if you've had Organifi you know exactly what I'm talking about. But get yourself your Organifi green juice ASAP or re-stock. It's one of the essentials.

Go to organifi.com/model, that's O-R-G-A-N-I-F-I dot com/model, and you get 20% off the green juice formula, also their red juice formula, which kids love the red juice formula, and they're gold in all their other incredible, again, organic, cold processed, great sourcing, easy to use, super food concentrates. Go to organifi.com/model. Now, let's get to the Apple Podcast review of the week.

ITUNES REVIEW: Another five star review titled "30 plus different plants a week" by Amy from middle America. Thank you for being such a great role model for our society, I found you through my best bud, Dr. Gundry. I started listening to you and I love your concepts. I'm focusing on eating 30 plus different plants a week after your podcast with Dr. Will B. I just ate a ninth plant salad with macro for lunch. My current plant count for the week is at 45, just started reading your Eat Smarter book, and can't wait to learn more, thanks for your kind voice and reassurance in getting our bodies healthier.

SHAWN STEVENSON: Amy, you are amazing, thank you so much for leaving that review over on Apple Podcast, you highlighted some of my favorite guests and my friends, Dr. Steven Gundry, Dr. Will Bulsiewicz. Amazing episodes, will put those for you guys in the show notes, and listen, we are just getting warmed up, thank you so much for sharing that, and this is just

going to add another layer here, because we're talking about nutritious movement today. And this episode is definitely an instant classic, our guest today is best-selling author, speaker and leader of the movement movement, biomechanist, Katie Bowman. And she's changing the way that we move, and also think about our need for movement. Her eight books including the ground-breaking, Move Your DNA, and her latest book, Grow Wild, are absolute game changers in the mission towards sustainable health and wellness. Her work has been featured in diverse media outlets such as the Today Show, all the way to the Joe Rogan experience, to Good Housekeeping, and she's also named one of Maria Shriver's architects of change. She's also worked with companies including Patagonia, Nike and Google as well, and she's back on the Model Health Show, one of my all-time favorite guests to share her new insights in this amazing, amazing new project. Let's jump into this conversation with the incredible Katy Bowman. Katy, welcome back to the show.

KATY BOWMAN: Thank you for having me again.

SHAWN STEVENSON: You are actually in the top two most repeated guests on the Model Health Show's history.

KATY BOWMAN: What? Who's the other one? Who do I need to beat?

SHAWN STEVENSON: Jim Kwik. He's a brainiac.

KATY BOWMAN: Okay.

SHAWN STEVENSON: Yeah.

KATY BOWMAN: Alright, I'm coming for you Jim.

SHAWN STEVENSON: I like smart people. So first question that I have for you, can you talk to us about our current state of sedentary behavior, right now what we're experiencing, and why movement really matters.

KATY BOWMAN: Well, if I put the current state into one word, it would be unprecedented, unprecedentedly high. And why movement matters... And I think it would have to go back to that, modifying that first word is, we think so much of movement as this whole body state like, "Oh, I'm sitting in my chair, I'm not moving," but if folks have listened before, one of the big things that I try to teach people is like, "Yes, your whole body moves, but so do your individual parts, each of those move, and then the cells of your parts, each of those move," and so we don't really have only a sedentary not-moving body problem, we have a not moving individual part and cells problem. And that transcends sort of where we think the consequences of not

moving lie, which are on only the metabolic effects of the body, but now we're getting to the part by part genetics of the body. There's many, many things that aren't moving, and so if you just think about your eyes, we're not moving a lot, but our eyes aren't moving a lot, and that's a part... Maybe we sat around a lot before, but we didn't sit around a lot with our eyes not moving, 'cause they're focused on something. So it's just... It's a much bigger issue than we think about, and we need movement, we need movement like we need good dietary nutrition, and so to be sort of in a movement drought, unprecedentedly, I think is gonna have some big consequences.

SHAWN STEVENSON: Wow, that's a great term, movement drought.

KATY BOWMAN: Movement drought.

SHAWN STEVENSON: And it's really even been exacerbated. You sent me a paper a little while ago, maybe it's a month or two ago, but this had come out really early in this situation that we're all experiencing, in highlighting how all the different mandates and things of that nature are exacerbating an already sedentary society, things have just gotten worse.

KATY BOWMAN: Well, right, because I think that movement, if you read a lot of literature on the benefits of movement or physical activity is the term, it's really the relationship between movement and non-communicable diseases. And so you didn't really see movement in communicable diseases before, but some of the literature now for people who are already really in public health, trying to highlight just the problem that we were facing with the inactivity two years ago, four years ago, 10 years ago, if you look at it, it just did a big exponential bump up because of really, the protocols that were established for dealing with the global situation, and so inactivity was already called a pandemic before, and so to see now the interfacing of those two situations together for folks who were researching physical activity and really physical inactivity, just the relevance is really sort of in our faces right now, especially if you're in the movement world.

SHAWN STEVENSON: Yeah. So I'm loving your new book, it's totally just blowing my mind, and you really highlight that we have a dynamic category of needs that range from, movement needs specifically, from procuring food to family time, to healthy movement, to time in nature, these are all needs. And you categorize those things. Now, we know that these things are good for us, we know that they're even essential, but it can often feel like it's a lot to manage, and I love your idea of stacking. So can you talk about that first and foremost? Talk about stacking.

KATY BOWMAN: Well, so I think people are familiar with multitasking, right? This idea of like, I'll get more done, I'll just do more things at once, so you got your list of things to do and you're trying to grocery shop and talk on the phone and talk to your kid at the same time, and that's

the opposite of multitasking, that's trying to do three different tasks in the same period of time. I think spatially, so I think in terms of volume, so there's a volume of time and it has a certain amount of space within it, and you're trying to cram a lot of to-dos in that period of time. Where stacking is the idea of looking at the tasks and trying to select one task that meets all of those needs, because really, research shows that people don't really multi-task, what they're doing is switching between each one very quickly, you're always doing one thing at a time, so you're really... If you're doing... Trying to do three things at once, you're doing... You're not doing two-thirds of them all of that time, so everything's just sort of done poorly, and you're particularly frazzled. So it's still work that goes into selecting tasks, how can I... I list all the need categories, right? We've got needs, we've got to...

We got to work, kids got to go to school or be educated, we all have to nourish our bodies, we all have to nourish our bodies with movement, so there's food needs and movement needs, there needs to be with other people, there's community needs, and there's needs for fun or play. There's need for rest. So when you look at what your categories of needs are, if you look at your tasks, you'll find that sort of the way our society's worked out is to pull out time and try to spend 30 minutes on a particular need, like, "I'm going to go to the gym, and I'm going to work out for 30 minutes or 60 minutes." But you're usually doing that by yourself, and you're like, "Oh, my kid needs some movement. Alright, I got to go drive, I got to find a class, I got to drive them to a class, now I got to put driving on there, which is nobody's need," but yet it has become the thing that facilitates many needs. So it's this idea of going, "How could I get the movement I need and the kid... Kids get the movement they need," and we also need time together, so it's trying to find a single task that facilitates multiple needs at the same time.

SHAWN STEVENSON: When I talk to you, I take notes, always.

KATY BOWMAN: You're such a nerd. That's so great.

SHAWN STEVENSON: Nerd alert, I just watched this movie, I think it's called Thunder Force, and it's a great kind of funny superhero type movie with Melissa McCarthy, and there's a scene where her friend in the movie, she's very smart, right? And she gets a little bit bullied and somebody calls her a nerd, she's like, "No, I'm smart. It's a difference." But for me, a nerd is a compliment.

KATY BOWMAN: It's a compliment to me... It's just what I am. So bring it.

SHAWN STEVENSON: Bring it.

KATY BOWMAN: Bring it.

SHAWN STEVENSON: Pocket protector.

KATY BOWMAN: Exactly.

SHAWN STEVENSON: So listen, I think that when you mentioned multitasking, was that... As I was reading this in the book, it was the first thing that comes up, and you just mentioned something, we're not multitasking in reality, we're switching task, and when we do that, we are losing effectiveness and efficiency, there's a switching cost involved.

KATY BOWMAN: Sure.

SHAWN STEVENSON: That we now have got tons of research on this, and so with stacking, so you've already kind of outlined how stacking is different from multitasking. Can you give us an example of what stacking would look like?

KATY BOWMAN: Well, so many parents and probably adults alike are struggling with, how do I get my kids outside more, I need to get off my computer more, we need to eat dinner, right? There's all these things, especially parents hold it in a to-do format, kids maybe don't necessarily have it that way, but this idea of like, well, what if you just took your dinner and put it outside, what if you just set it up on the patio or in the backyard, or if you even wanted it to be not just family time, but that community time, what if you texted two of your friends, meet me at this park, and everyone just bring their own food, but we're going to eat together. The fact that you set up or chose to do dinner in that way is going to get you friend time that normally is associated with a party or a gathering, where you got to clean your house and you got to stress out and make special food.

And the things that keep you from doing the activity that gives you the essence of what you need, you don't need to clean your house, you don't need to make special food, you need to hang out with your friends, and when you go out to hang out with your friends, they bring their kids, and you bring your kids, and now, hey, there's a group of peers of various ages, they're outside because that's where the dinner is, so they grab some food, but they're not going to sit down. Everyone's off their screens now, and oh, there's a playground right there, or there's a field and someone brought a frisbee or someone brought a soccer ball, now people are kicking it around, very casual, very the way things used to happen, very much less structured and official and organized, but making that one choice, the stress of worrying about your kids sitting inside and not moving around enough and being too isolated and you needing some other adult contact, or just casual hang out or... Three, not having to mess up the house 'cause you're eating in a park, and it's so much easier to not disrupt your home space that you already cleaned three times that day, so that's what I mean. That was one task, but it totally changes the outcome of that day, and I don't have to drive anyone to class and I don't have to

think so hard besides the original thinking of figuring out what these tasks look like, which I try to put a lot in the book, like I'm trying to help you, here's a 100 tasks, be inspired, adjust them to suit your unique situation, but there are tasks out there because these are the original sort of human tasks.

SHAWN STEVENSON: Right. That's the thing about it, too. So it's not multitasking, it's choosing one thing that meets these different needs. So, we're meeting a community need, the food need, the outdoor/nature need, all-in-one thing that you would just do.

KATY BOWMAN: Right.

SHAWN STEVENSON: But what I think I really picked up from your book is it inspires more intentionality behind it, like, "Why would I not do that? Let's do that. Let's... "Literally I thought about, "Let's have dinner tonight outside on our little outdoor table," which we've used once ever, and it's just sitting there, so already. You know what? I think that, if we could, I want to give another example, because earlier, when you mentioned driving and you gave... For people who can't see the video, you gave a dirty face, you just gave it a side eye. I spit upon your shoes, driving. And I think even for... If something is literally, we'll just say, 15-minute walk away, we're going to jump in the car. Let's just be honest, most folks are going to jump in the car, run and pick up whatever it is, and come back. Whereas, if we think about it in this context of stacking, we can change that.

And also I thought about how... And this is true, I think a lot of us automatically do this, even when we do need to drive somewhere, we'll say maybe it's a 30-minute drive to the store or whatever, we also make sure we get the closest parking space possible, heaven forbid we should have to walk two minutes outside to get to the door. So we're walking as little as possible and have supplanted that activity so much for other needs like driving, for example. What's another use of stacking here?

KATY BOWMAN: Well, one that really got me through the years with having young kids and having long days with young kids, and now is sort of a really dear to me practice with older kids who are 10 and 8 is choosing to walk that 15 minutes. Not just... If we need to go to the store, this idea of, "Do you want to take a walk with mom to the store?" "No." "Okay, come on. Come with me, we're going to go, we're going to go make something special and I'll let you pick out some ingredients or something." So it's this together time. I think that talking to kids sometimes can be challenging, especially when you're like, "Let's sit down and talk." And every kid is sort of horrified, like, "Why would we do that. That's such an adult sort of thing to do."

But when kids are together in groups or even when they're with us, once you're walking and doing something else, all these things start bubbling up. This thing is happening because

they're not sitting face-to-face, it's not a pressure to talk. You're in a movement meditation, you've freed up the occupation of your body step after step, and you just go get the thing for cooking... And I would further stack it by saying the challenge... And when kids are younger, this is all below teenager, I would say, they're really keen to do different things and be in charge of stuff, so it's like, "If you were going to make dinner, what would you make?" And it's like, "Great, let's... Right? "Let's go get the ingredients, no criticism. Whatever you want, let's go make it."

And now the walk, you're walking, planning, how are you going to make that? What tools are you going to use? And now it becomes a planning session, it becomes... Now, I would put that under education, because why do we send our kids to be educated, to learn how to fend for themselves, take care of their fundamental needs? I got to walk. You know what I mean? I got the exercise of walking to it from and we got the extra carrying because we're carrying the stuff home that we're going to use. And so that would be another simple task. And even when we are in places where a walk all the way to the store might not be feasible, walk part way. This idea that, "If I can't do the entire thing, I can do none of it," that is such a debilitating mindset to get into. It's like, "We're going to go and we'll park down here and we'll just walk even the half a mile up." Or maybe your kids need to start with something short, that's fine, just pick something and make a ceremony or a celebration around it because you did that, you did that thing, and that's really great. And then I'll know they can do it, and then eventually they'll go farther.

SHAWN STEVENSON: Yeah, I love this so much. I'm a big... And I think we've got to pay attention to our own personality as well. I'm a much more task-oriented person, and so for my son what I would do... This was when my oldest son was maybe 9 years old, if we wanted to watch a movie... This is back before Netflix was dominating the world and you don't have to go anywhere. We had Blockbuster Video, family video. And so if we wanted to rent a movie, I'm like, "Oh, we're going to definitely ride the bike to go get it." And this is a nice... It was a couple of miles away. And so the first time we went, it was tough, it seemed like we would never get there. But then it just got easy. Even the second time... Even on the way back, it seemed so much shorter.

We had a task-oriented thing, it was just like, "Okay, we want to get a movie? Let's go we'll ride the bike." So we've got this task-oriented thing, we're going to get this entertainment, we've got time together, we've got this physical exertion. And we've got nature time as well, like we stack that thing, and it was for a reason. For me mentally it gives me my little brain candy, and that just became our thing. 9 times out of 10, that was what we would do, and it became at a point pretty easy for us to do that. And so it's just... But also it's integrating into the culture. And so this gets in the conversation that you really bring forth in the book, which is all these different containers of our reality that really dictating guide our movements. And you talk

about how culture is a powerful container for our movement. How is that? What does that mean?

KATY BOWMAN: Well, it's so easy to think of, put a shoe on your foot and that's a container for your foot, 'cause your foot can't move as well when it's in a shoe versus out of a shoe. But culture is a little bit more challenging to imagine, because a lot of it is invisible, but it is... I organize the containers by size, meaning the amount of time you're spending in them. And you're in your culture pretty much 100% of your life. And so this is a sedentary culture. It's also just ours, so we might not recognize what makes it unique compared to others, but being sedentary is sort of a hallmark of this culture.

So, what does that mean? It means that you don't see a tremendous amount of movement being modeled, if everyone else is sedentary around you, then to fall in line with your culture. And when you think of culture, I think of biology, this idea that you've duplicated cells that are the same in a container, like you've cultured something. So that's what makes... It's similar, and that's how cells are converted into the behavior of the broader culture, mammals learn through mimicking much more than through written words or symbols, and so you're already... This is how you use furniture. Houses are what you live in. This particular style houses, all other houses are weird, all other houses that don't have furniture looks like that, that's weird, because you're sort of organized to what you see the adults or the peers grow up to be.

And then also I would say a lack of permission to move is a big one. There are many signs that actually discourage movement that we might not even really see beyond the perception of, "Oh, this is the rules for the safety of being in this area," but there's a tremendous number of signs up that really say movement is not for here. And so my question is then, I would like you then to write out where movement is allowed. If it's not allowed inside the house, and this park is only for these particular ages and you can't skateboard here or bring your bike or the other physical activity to this school campus when the school is closed, even though this is where we would say children are allowed to move, and you can only move during these periods of time, what you start to see is we have sort of eradicated where movement is okay as a culture, while also simultaneously telling everyone they need to move more, and that you're a bad parent if your kids aren't moving more.

It's like, where would you like them to move? Because when I go into a space, like, keep your kids quiet, make sure they're sitting so they don't disturb everyone else, and it's like when you actually take an objective look at it and write it down, you're going to see that the reason we have this ever increasing in activity is because, as a culture, we keep removing permission for it, we keep saying that you're not part of the culture, sort of, if you're moving in this way. Especially for children, you can move in a fitness way, you can move in classes, you can move in gyms, you can move when you're in the appropriate box for it, but that's a very small period

of time. And for many people, it's not even accessible. So that's my greater point, is it's time to look at the cultural... The sedentary culture of effect on the other citizens of this culture, especially the young ones.

SHAWN STEVENSON: You know what, when you said that, literally you brought something to the foreground that we all see, and that I see, but I never really thought about it, and how I see the signs. I go for a walk on the playground and it's like, no jumping, no skateboarding here, no running, no this, no that. It's all of this dictation on what you can't do, and especially again at appropriate times. And by the way, this place is fenced off, you can't use it at any other time except during the recess time. And so I think this is something else that you talk about in the book, which is the fact that our culture, now that we're existing in, here in the United States specifically, and also, of course, around the world as well, it's a big issue. But our culture has made not moving so easy, and that's something else that you talk about.

And so I love this idea, number one, you bring this to our awareness, but also you say, "Hey, it's okay because we do have these safety metrics, sometimes it's appropriate. However, let's put up some sign that say, 'Hey, jump here, this is a good place for you to jump, this is a good place for you to run.'" And in that context, I also thought about literally... Tag has been banned at certain schools, you can't play tag, a kid got hurt before. And this is the thing, and that's... Of course, we don't want that to happen, that's terrible, we'd never want a child to get hurt. However, if you're not taking calculated risk in life, that in and of itself is making you a tremendous risk, you're not going to be adaptable when inevitable things happen in life. Can you speak to that a little bit?

KATY BOWMAN: Well, I do think... I understand this purpose of the signs, we understand that we don't want a property to be destroyed and children to get hurt, but again, it comes back to, if you've removed large areas of movement for the safety of children or property, where do you expect this movement to happen? I want you to go beyond the rule of where you can't move and follow that through. If it's a need and you took it away here, where does it go on the other side? What formats look okay to you? Do that work to actually round out the solution, because the child still needed movement. So due to our way of setting up a culture for the legalities of that culture, in case someone gets hurt, I don't want you hurt on my property, but we have other citizens who have needs in this particular way, then what does it look like for everyone to still get that basic need to be met?

And then city planners or smaller communities can make adjustments, or like I said, I made home in an environment because, in many cases, those concerned about their children getting more movement... Movement isn't even allowed in their own home, meaning that the parents themselves haven't really looked hard, it's easy to sort of say, "My kid can't move anywhere." And then it's like, "Stop jumping on the couch," because everybody knows you shouldn't jump

in your house, but I think you should be able to jump there and someone else is like, "Well, I don't think so." So then you have to start with your own home then, look at... There's a bias check-in in every chapter to say, "I want you to answer these 10 or 15 questions," because by doing so you're going to tune in to really your own belief system and understanding and these rules that you might have that you might not even realize relate to movement.

SHAWN STEVENSON: Right. Oh, that's so powerful. I love the timing of this because this is, over the last year, because of all the time for self-reflection and self-analysis, I've been catching myself in that thought process of seeing my son running and jumping on to the couch, and I would literally think... I think I even told him one time, I was like, "If I did that, my mom would kick me in my sternum." You know what I mean?

KATY BOWMAN: Yeah.

SHAWN STEVENSON: But what I've done is I've become aware of that and just like, is he really hurting something, number one. Number two, encouraging that, because the thing is he's doing a behavior that he's seen me do, but it's just in this appropriate time, I'm kind of like analyzing, "Where is this okay?" Because I push the boundaries of that. For example, and we'll put a video up for folks of this, we were on a tram at the airport one day, and I didn't even think about it, I just tend to see the world through a lens of play. And there's these things hanging down for people to hold on to, I just grabbed him to start doing pull-ups, there's some people up in the front of the car, they're kind of probably looking back probably impressed, but maybe someone was like, "What is this guy doing? That's not appropriate." We have those social conditionings where we are afraid to do stuff like that. But I literally didn't think anything about it, and I think my wife maybe pulled the phone out and start recording. I was just enjoying the process 'cause it just felt cool, it was fun. The train is moving, so it's like a different feeling.

And so yesterday, this is what I wanted to tell you, my kids were getting new mattresses, and so temporarily the mattress is at the bottom of a staircase. And I come down and my son was like... My youngest son is 9, he's like, "Dad, come here, I want to show you something." And I'm just like, "What is it?" I didn't know this mattress is right there, and I come and I see him, and he immediately jumps off the stairs and dives onto this mattress. And I'm just like, "Whoa, good job, buddy." And it was just like six stairs, it's not a big deal, but he found a way to play, found a new creation in the house. And I could have been like, "Hey, don't do that, that's not safe." And I could see the part of me that wants to do that, and it's just like, let's create a... This is what I want to ask you specifically. We know the overarching culture is geared towards making sedentary behavior the norm, can we create our own cultures? How can we go about creating our own cultures in our own little bubble that can encourage more movement?

KATY BOWMAN: Absolutely. There is no one culture because really we each have multiple cultures within ourselves. You belong to many, and they are at different scales, but your home culture is your home culture, and you have a lot of control over your home culture. It just is a lot of work, like you said, to check in with, "What exactly am I worried about? What would the consequences be? What's the consequences of them not doing it?" It's really you have to do a much broader risk benefit analysis than we're used to. We're just, "Good. Bad. Done." And it's like, well, what exactly... You need to have, I call it, a personal mission statement.

People have mission statements for their business, but they have no personal mission statement and they have no family mission statement that takes into consideration the unique direction of every single person within the family, so your family culture, that was in a different book that I wrote, it was like you should make one, even if it's just keywords, because then you could see quickly, "Does me squelching this behavior align with my mission statement or not? No, I want him to be," my son in this case, "to be robust physically, I want him to have some autonomy over making decisions, I want to reinforce it." He knows his body, there's nothing that could be damaged. If there was, I could talk to him specifically about that particular damage and say, "Hey, could you make sure that this doesn't happen?" And then go on, let him know what your needs are.

It's just, again, that same old how to be with people and, yes, when you do that with your own family members or even a larger culture that's outside of your family, any other group that you belong to, maybe it's a sports team, maybe it's the sports team where you're like, "Hey, we're trying to change our personal food culture. Is there a way we cannot do sodas at this event because it's becoming a challenge? Could we do that?" It's just the difficulty of broaching communication with someone else is really the barrier to making a lot of these changes. And then just when you have been honest and written down what you need and why, and you feel comfortable bringing it to other people who love you in your community, that's when change happens versus rules, "Don't do this. This is not allowed." I'm like, if we could just have communications human-to-human, people are much more willing to adjust their behavior than putting down a bunch of mandates.

SHAWN STEVENSON: Oh, you just said, the M word. All right. Well, let's go to a different M word, which is a term that I picked up from you. And this isn't bad, guys, it's not a profanity, but it's mechanical nutrients. When we're talking about the need for these things, let's talk a little bit more about why. First of all, what are mechanical nutrients?

KATY BOWMAN: Mechanical nutrients are what happens when your body moves. When your body moves, the cells of the parts that are moving become squished or change shape. And when those cells are squished or change shape, the parts of the cell that monitor the cell's position create a biochemistry. That's called mechanotransduction. And so it's very similar to

dietary nutrients. You put food in your body and your body takes the chemical compounds, and that becomes chemical signals. It becomes biochemistry essentially. We don't think of movement as going into our body, but movement coming into our body eventually becomes biochemistry by the act of bending or squishing the cells. And so my argument has always been to recognize the essentialness of movement by classifying it as a nutrient because it meets the same conditions.

And dietary compounds aren't the only compounds. We've said that sunlight has a nutrient in it, so we're already okay with non-foods being classified as nutrients, nutrients are something that in their absence there are a predictable set of symptoms that arise, and that when you re-introduce the compound, those symptoms go away. So, if you've ever wondered why we have things called vitamins, it's because someone figured out that, "Hey, when this compound acts, we don't know what it is, but we had a group and we tested over hundreds of years, and we've been able to figure out that, hey, there is a compound, some essential thing, when you eat and if a group didn't get it, they would have these predictable symptoms, and we figured out what the food is by adding it back in and those symptoms went away." So, movement is already operating in that framework, we just don't use those words. We've chosen a whole different set of words, and so it makes it very hard to see why movement is essential and works in the same way as dietary nutrition.

So, if you got a sore shoulder or elbow or whatever, your physiotherapist isn't going to say, "You should walk more." They're not going to give you a general movement prescription. They're going to say, "No, you need to hold your elbow at this degrees and move this... “You’re going to toggle this very narrow switch because we need those cells to feel this movement so that they adapt. It's different than, "You want to be healthier, eat more," in hopes that you get more nutrients. It's like, "No, we've figured out the exact dosage here that you need. We just don't call it vitamin bicep curl with your arm turned five degrees." So for every movement, there's a different squish, and each one of those is a different nutrition, so to speak.

And so we haven't figured out what the full doses of movement are beyond the general physical activity of like, "Hey, you need to move total, you should have some strength, some cardio, some flexibility." Oh, it turns out, "Okay, you also need to move your hips and these certain ranges of... "We're going from macro nutrients to micro-nutrients right now, it's going to take some time, but that's it, it's this idea that there's stuff your body needs that is happening in the cellular squishes when you move your body in lots of different ways.

SHAWN STEVENSON: Katy, why do you do this? You blew my mind over here, I'm still trying to gather... Put my mind back into my body or wherever the mind exists. Listen, I just had this huge revelation right now, because we usually think about ATP, for example, in the construct of this nutritional pathway, but movement can trigger the creation or generate the response

of ATP being created in the body as well. And so literally, this is an issue with semantics, because when you're talking about mechanical nutrients, that really is, it's the same outcome that we're looking for with food is the creation of a certain chemical output and the body is doing the same thing when you move. And so I'm trying to revel, I'm trying to bask in the glow of this insight, it is so powerful, so powerful. I think also if you could... If this is the case, right? So we have essential movement nutrients that we require, right now, we're also experiencing then a parallel of a tremendous amount of movement hunger. So can you talk a little bit about that?

KATY BOWMAN: Well, I said a movement drought before, but I think hunger is probably a better framework because we all we're an eating culture, and we've been trained by our adults and we've trained our children to recognize the signals that come from their body in terms of food. So it's like, "I feel this or that." It's like, "That's just hunger." "My stomach hurts." "Oh, you're hungry. That's what... That's what it does." Your kids eat too much sugar, they have a particular behavior, you correlate... Your activity level, or your vibrations is based on this thing that you've consumed this way, we give our children this eating framework, but very rarely will we say, "Oh, you're feeling this way because you're under moved." We don't use that terminology. We call it something else, and I think it's because we don't have movement at our finger tips to help each other, to help our children learn what the symptoms of movement hunger look like. So if someone feels like, I know for me and maybe other spouses do, my husband will be like, "You need to take a walk." And I'm like... And what he means is, the feelings that you're having right now that you perceive are about some other things, are your symptoms of inactivity. I go on a walk, guess what? It doesn't bug me anymore.

Situation change, you could frame in a lot of different ways, but the fact of the matter is, my buildup of emotions is definitely related to how much I've metabolized my biochemistry overall, so I've really made a point to frame a lot of my children's experiences of, "Well, you've been sitting down for a long period of time, what would jumping up... What if you jumped off the banister this many times?" "Okay, I feel better now." Great. If they're sitting on a position for a long time, like, "My back hurts, I'm getting this pain thing." I'm like, "Well, what's your back been doing for the last 60 minutes?" Go do something else from your back and learn that that signal is your body communicating with you about something and move and put some different calories in there, and you tell your kids, "You'll have a snack," when they're hungry, "Go drink a glass of water." And so it's just using that language a little bit more in the end, helps children understand that, "Oh movement is this thing that if I do it or not, it's affecting my outcome, and now I have a much bigger tool box for dealing with my experience."

SHAWN STEVENSON: Yeah, and this is the thing too, and I love... This is a big reason that I admire and love your work so much is it's really just... It's data-driven, and you just make it make sense for folks. We have mountains and mountains of peer-reviewed evidence on the

benefits of walking in the context of so many different health issues, including massive amounts on mental health issues, for example, but we have this sedentary culture where that's not prescribed for you to go for a 20-minute walk to deal with the anxiety or the depression, or whatever the case might be, the stress, when in fact, if you look at the data, it's often times more effective than this pill, for example. Everything has its place, but we've just really been inundated in our culture with jumping right to this thing, to treat a symptom when we're really deficient on movement, for example, and also I think that if we're using this same framework, we're overeating certain movement behaviors, we're overeating chair sitting, for example. And can you talk about that? Because basically, our body with that mechanotransduction that you mentioned it just... Essentially, I think we're becoming really well-shaped for sitting on the couch.

KATY BOWMAN: Well and that's what I try to point out, and I said, "The best exercise program many people are participating in is sitting." and I say that because I think that we believe that our bodies are only adapting to the behaviors that we do when we're trying to improve our health, but your body is just adapting, period, and your body is just always going, "What are you doing? How can I make this easier on you?" That's really the really basic sort of primal response, and so if you are an athlete or if you've ever tried to become a jogger or a runner, you struggle at the beginning because as you acquire that skill, your body is like, "Oh, are you going to do this one time? Alright no big... Oh, you're going to do this two-day, alright? Oh you've been doing this for three days, alright, I got to make this a little easier on me, I'm going to add some capillaries, I'm going to go ahead and beef these cells up, 'cause I noticed you were putting load on here," and so it's changing its anatomy, your body is changing its anatomy in order to make the thing that you're doing easier on you.

Sitting is the same way. "Oh, you're going to sit here today? Okay, I'm going to... Oh you're going to still sit here? Okay, well, I'm not going to maintain these capillaries that are on use, that's a waste of your energy, I'm going to get rid of those, I'm actually going to let your capillary volume go down, you don't need all this extra blood-shunting stuff if you're just going to sit here, you don't need all of those minerals in your bones, if you're not going to be putting your weight on your hips, we'll remove those too to make this thing that you're doing easier on you." So the exercise adaptation is not really an adaptation exercise, it's an adaptation to load. You're loading 100% all of the time. And so when you can think about it, instead of sort of like, I'm moving, I'm not moving, and think about it instead of I'm always moving, what exercise program am I doing right now? It makes it a lot easier to be like, "I don't want hips at 90 degrees, I'm going to stand up a few times a day 'cause I want to... I want to shake up that exercise program a little bit." Doesn't mean you have to run eight hours a day, but just changing up the geometry of your resting position mix is a cross-training... It is a cross-training for sure.

SHAWN STEVENSON: Oh my goodness, I love this so much. So good. Now, okay, the majority, the vast majority of our movement behavior today being sitting, chair sitting, couch sitting is happening indoors, obviously, and you know what's so crazy now, even as I'm saying this after reading your book, what I'm saying indoors and outdoors, it's a little bit of this dichotomy that's kind of superficial, because it's like nature's outside and we're distinctly different from nature, so can you talk about... Because you really bring this forward in the book that nature is really considered an essential input, it really is an essential input, and we have a massive nature deficiency right now, so talk about that, and also the fact that why humans... We have this tendency to separate ourselves from being a part of nature.

KATY BOWMAN: Oh my gosh, those are such... How long is this show? These are really deep things, but...

SHAWN STEVENSON: We got to go deep Katy.

KATY BOWMAN: I know. Okay, so nature, I'm going to put air quotes around nature for those listening... Nature in this way is really this understanding of green spaces, like what do we get when we go outside, there's natural light, there's light that changes throughout the day, there's temperature variants, there is sounds that we don't hear, there's a distance that our eyes can see and therefore different muscles in our eyes are allowed to work differently, there's the biochemistry that's coming off of the trees that you interact with, there's a whole different microbiome out there. There's lumps and bumps and shapes of sitting down, and so it's a much more dynamic, diverse environment that stimulates the body when they're out there, it's such a nebulous concept that at this point, it's really just the understanding of humans need that... They're doing such work to try to break down what it is exactly, and that sort of relates to why do humans see themselves as outside of everything? And so I don't get too much into this in the book, but it's just...

I think it's the way that at this point, humans... It's like as our way of understanding the world changed from the experiential to the written, reduced knowledge, trying to figure out the details. You keep separating the detail from the thing, you want to pull it out and you want to look at it, you want to pull it out and you want to look... So even right now, we need nature, the solution is, right, we should all go into nature, the solution is let's figure out what it is in nature that we need, so that we can get it while we're inside. So I think it's just perhaps the very natural consequence of being tinkers, humans are tinkerers. That's how we got to where we are right now. So you have to sort of give thanks for what got us to this point, which doesn't mean you can't reflect and choose the direction you want to go. So our ancestors tinkered and tinkered away, figuring out ways to make it easier, which means ways to make more of us, and so that just... It might just be the humans way in the world, it's just how we've spread out, and our solutions, at this point... I think culture and biology are very intrinsically bound where

culture over a longer period of time ends up becoming part of your biology for the next group, so it's still mutable, although the scale is much longer than we could probably really perceive in terms of human generations, but anyway...

So I think that we have that tendency, we have that tendency to see ourselves as like, "Nature is out there and we're in here." And I'm like, "Nature is everything." And also keeping thinking like we're separate nature is sort of the problem, the fact that I don't need movement 'cause I can just figure out a way to not need movement, we haven't been able to tinker that far, but it's definitely... I think it's probably on someone's to-do list, like someone's working on that problem right now, is how do I figure out some sort of machine to stand on to vibrate me... If I didn't do something for 36 minutes, could I get all the movement needs in my entire body, this idea of reducing it down...

SHAWN STEVENSON: Right. So true, all you need is five minutes on this thing and it equals out two hours, right?

KATY BOWMAN: It keeps getting shorter. It used to be like 12-minute abs, and then it was like eight-minute abs, and then of course now there's two-minute abs and it just keeps... It just keeps decreasing. But...

SHAWN STEVENSON: Instant abs, that's the next one.

KATY BOWMAN: It's just abs. Get it.

SHAWN STEVENSON: Can you talk about... Because you made a great analogy that really opened... That's why even when I mentioned this discernment, for me, it sounds a little bit silly now, is because you gave the example of beavers, beavers build stuff. So can you talk about that?

KATY BOWMAN: Yeah, so I was like, humans take stuff in nature and build it into something that wasn't there before. We do that too, it's just the scale upon which we're doing it is extremely accelerated, and the reason I use that is because everything that we're using is still just something that was on earth that was dug up, broke down, smashed together with some heat or some other chemicals, we're still all working with stuff that's here on the planet, so in that way, we're doing this natural behavior, it's just that the rate of destruction is really high and it's because it's fast and there's a lot of people doing it, and also what I would say is like a beaver takes a stick and builds a dam or a house out of it, and the... What do I want to say... The by-product of that house is almost negligible, meaning there's no extra material is created where... So if I was going to do a piece of traditional footwear that's been around for thousands of years, like a moccasin, what am I doing? I killed a deer, I'm using the scraps from my meal to

make a shoe, those shoes are going to be around, I'll wear them off, they're going to fall down and they go back to the earth very quickly, so my footprint, if you will, is extremely small, but as we push for materials that didn't exist before, still using earth stuff to make them, the waste that is not the shoe is really high.

So I can make a shoe, but the amount of non-shoe stuff that was made that's not the shoe, that relationship between the two is much different, so it's all just increased, even though the foundational element of humanity is the same, but the access to the materials and the rate and the scale upon which we build is so much bigger and the amount of time, the things that we're building with, that they stay doing nothing, that's trash and it just... The scale is much different, the scale is really the only thing that's different to me.

SHAWN STEVENSON: Yeah, so true. I thought about, the beaver doesn't have fumes coming out of this Beaver house. So good. This still... I want to dig into this just a little bit more, because when I was early in my career even, I just didn't see the value in walking, even though it's the most natural, normal thing that we're designed to do, if somebody is just like they're walking to lose weight or be healthy, whatever, I'm just like... In my mind I'm like, "You're going to have to hurry up. You're going to need to speed that walk up." But in reality, it is such a nutrient-dense movement, if we can frame it like that, so can you talk about why walking is such a nutrient-dense movement, and also why you've shifted from telling people to walk more.

KATY BOWMAN: Well, for exactly that reason, you're like, "Why would I walk, it's so slow, I got all these tasks to do, I got to... It's going to take too long. I can do so much more if I just drove or I could fit my work out in more if I just ran, I could do the same distance in half the time." So I stopped telling people just to walk more, period. Instead, I'll try to approach, you can actually get more done in many cases, if you choose to walk because walking... Well, let's go with first why it's a nutrient-dense movement, it really uses a lot of your body, it loads the bones, so if you were to compare it to cycling, for example, walking, you are weight-bearing on your body, where cycling, you're not. Your weight is really put upon your seat, which is put upon the frame, so it's you carrying your weight around, a good thing to do is we talk about body weight exercise, walking is a body weight exercise, it's where your limbs get to feel how much you move. They're also moving through a really big range of motion, your arms are swinging front to back, much different than the computer position or even your arms affixed to a bicycle position where your arms are still sort of in a computer position, so you get the shoulder movement, your legs are getting behind you perhaps for the first time that day, even if you're cycling, your thigh bone never goes behind you.

Yes, it's moving a lot, but it's moving through a very narrow range of its potential. So walking again, it just... It moves a lot of body parts, and when you carry something too at the same time, there's a lot of core work, coordination, glute work that goes into walking. As simple as

it is and as slow and boring as it can seem, your body doesn't feel that way. Your mind feels that way, but your body doesn't necessarily feel that way, especially if you can figure out if walking hurts and there's different ranges of ability, but if walking is bugging you in your knees or your hips or your feet, you want to sort that out because for this other reason why I recommend walking, walking really facilitates lots of experiences and transportation, like getting from point A to point B is a thing that humans do. Like moving around, and it's a really... It's kind of hard to explain it now because we've become so car-centric recently that unless you are a walker, which I am a walker, meaning I choose that as transportation, you don't really realize that we've given up most of the walkways for car ways.

I've been walking and hanging off the side of a freeway before because there's no other way to get to a place anymore without a car, without a motorized transportation, and so it's just... One of the reasons that people don't move, it has a lot to do with their economical reasons, because time and economical reasons really go hand-in-hand, this exercise move more requires often times that you have free time, and so what they really understand is a lot of people don't have free time, and so if you use an economical model, which is... It's called SLOTH. Have you ever heard of it? So it says that humans are really... And it's an American model, I believe, you're spending your time sleeping, leisure, occupation, travel and home, but those are... That's the times that you're in, and they all relate to the economy of your time, but also that's relating to the overall economy of how much you're having to work to survive really, financially. So transportation is one of those places that it's very easy to add movement to getting to some other place where you need to do a task.

So walking... And even cycling, if you can't walk or other forms of rolling, allow you to add more movement into the transportation time, which because everything is sort of parsed and separated now, we spend a lot of time getting to a place to do a thing. How much of your time is not doing a thing, but getting to a place to do the thing, like economically it's a huge wasted period of time, we try to fill it with podcasts to better yourself for learning, thanks everyone for listening, and then you try to fill with maybe some reading, maybe some talking, maybe some relaxing, but movement can go in there too. So this idea that active transport is a way that can really be a viable solution, and walking to be such a whole body one requires no gear, has a pretty low carbon footprint. It's got actual footprints. That's why I'm in favour of it. I'm not going to tell you to do it, but I am going to tell you all of the benefits that come from doing it and where it can fit in.

SHAWN STEVENSON: So good, so good. Got a quick break coming up, we'll be right back.

Mental performance is more important than ever, and there are specific foods that are proven to enhance our cognitive abilities, like few things can. A study published in Advanced Biomedical Research found that royal jelly has the potential to improve spatial learning,

attention and enhance our memory, and to add to that, it was found to be anti-microbial, anti-tumor and anti-inflammatory, one of the biggest issues we're facing with cognitive decline, with diminishing brain health is neuro inflammation, specifically hypothalamic inflammation with our hypothalamus being a master regulator of our endocrine system and our nervous system, and addressing this helps not just our brain work better, but our body working better as well.

Royal jelly has also been found to facilitate the differentiation of all different types of brain cells, and to top it off, researchers in Japan discovered that royal jelly has the power to stimulate neurogenesis in the hippocampus, this is the memory center of the brain, very few things ever discovered have been found to be able to do this. This is the power of royal jelly. Royal jelly has been prized for centuries for all of its metabolic and cognitive benefits, but this is just one of the most remarkable super foods for the brain.

Another one of my favorite things is Bacopa, a randomized double-blind placebo-controlled human trial, the gold standard of clinical testing 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. Now, I've got both of these powerful super foods together into one of my all-time favorite nootropics and it's called B.Smart from the incredible folks at Beekeeper's Naturals, they're dedicated to sustainable bee-keeping, that's where this amazing royal jelly comes from, to deliver the cleanest most bioavailable forms of bee products, and they're committed to third-party testing for over 70 pesticide residues commonly found in bee products, with some of the most pervasive offenders being things like DDT, that's again, commonly found in bee products.

They also test for a wide variety of other things commonly found in bee products that a lot of folks don't know about, like heavy metals like arsenic and lead, and also testing for E. Coli and salmonella and things that you do not want coming through with the incredible bee products that we're trying to get and get the value from. We don't want toxins and poisons coming along with those things, so I'm a huge fan of Beekeeper's Naturals and my favorite thing... My favorite nootropic is B.Smart from Beekeeper's Naturals.

Go to Beekeepersnaturals.com for 15% off, the B.Smart and all of their other incredible products, you've got to check out their super food honey as well. It's amazing. Go to B-E-E-K-E-E-P-E-R-S naturals.com/model. Again you get 15% off all of their incredible products, B.Smart is a must have for mental performance. Pop over there, check them out, beekeepersnaturals.com/model. Now, back to the show.

SHAWN STEVENSON: So in the book, you really outline these various containers that influence/encourage, orchestrate or even inhibit our various movements, and so we

mentioned already the culture container, but another one of them that spoke especially to my heart was the food/cooking container. So can you talk about that one a little bit and why you decided to put... Of course, it's like integrated into it in the first place, but why did you make it an emphasis to talk about in the book?

KATY BOWMAN: Look at how much time we spend dealing with food, if we go back to the most primal state, the only reason we get up and move around each day is to eat. That's it. When you come down to actually things that matter, it's your food and water, and air, those are the top things and they have become the bottom set of knowledge that we hold. It has become the bottom thing in terms of understanding how it works, and it is still the top thing for humans, meaning, this is the framework you will die without when we don't know where food comes from, and it doesn't come from a store. When you lose that cultural awareness of where food comes from and how to procure it yourself in the way that every human really leading up to us did until this outlying time, I felt it was important to call it out that way.

And then also even if your food knowledge is really low, you still eat all the time, you eat every day. Multiple times a day often, it takes up so much of our daily experience. So it's actually quite a large container, it's the culture, apparel, food, it's the third biggest container, 'cause I was like, you're probably going to get dressed before you eat.

SHAWN STEVENSON: Unless you're into that kind of thing.

KATY BOWMAN: Exactly. No judgment. So yeah, so it's also... And I said this in 'Move Your DNA,' getting up to eat was why humans moved in the first place, meaning hunger is the signal, movement is how that hunger signal is closed. I mean, you actually have to put food in, but food is not coming to you, buddy. You're going to have to get up and go for it. You have to go find it. You have to source it. You have to know what's edible. What's not edible? This is the original human knowledge, and frankly, many people still hold this knowledge, they're just making the food for all of us so that we don't have to hold knowledge for it, we could just go eat dinner outside on the patio, and it's awesome.

But it's also... It is the thing that moves us the most, so if you're going, "I don't know how to move more with my kids or my family," I'm like, "Consider teaching them about food, not just feeding them, but restore that food knowledge," and you can choose the scale upon which you want to do it. If it's just, here's how to hold a knife and here's how to chop something, that's great. If you want to just make the movement, put all these things in the pot and cook it yourself, that's great.

If you want to plant some sunflower seeds in your window right now so they can see a seed, and the fact that it plus soil and the air can pull mass and grow into something that didn't exist

before, do that and look at... That's a task. You want to talk about miracles, you want to talk about the miracle of life, and why we get to be here, plant a sunflower seed in the window and guess what, the movement to go find a box, to go get the seeds, to bring it water every day; those are movements too. We've been told that we need exercise... We don't need exercise. The only reason exercise is even on the table as a word, as a concept, is because we let all the food and movement go and we're trying to bring it into the house, we're trying to be like, "Oh, let's go get some of that nature and bring it into the house, let's make a movement house, we can from our house, house to the movement house, and we never have to go outside."

So it's just that, it was just... And it's a solution, you could read it at that level, I know you get it out that level, thank you for asking me about it at that level, but it could also be... If you take cream and you shake it in a jar, you're going to have butter and you know what makes it butter? Movement. Cells banging up against each other and make butter and your arm muscles making that movement, make butter. And people have been doing that for thousands of years, and now you're part of... You're back in line with this chain, you're getting back in line with this thread, and to me, I love humans, I love all the humans, I want to... That's just my way of going... You are wondering what maybe you could do with your kid that would inspire them to want to be in the world a little bit, show 'em some magic, show 'em some old magic.

SHAWN STEVENSON: Original magic. This is pre-David Blaine, David Copperfield magic right here. Pre-Houdini. You know what, I really want everybody to get this. Because again, you just did it again, you blew my mind. The number one driver through our evolution as humans, the number one driver of movement is to procure food, that's the number one thing, encouraging and inspiring us to move was to get food. That's why we did it. Twenty thousand years ago, a hunter-gatherer wasn't coming out of his tent or whatever the case might be, his tepee, and he's telling the guys, "I'm about to go for my run." They're going to be like, "Why? What do you mean?" I'm going to go and procure food, that's the whole purpose.

And now today that piece... The number one driving force of human movement has been taken away, the most you got to go is just walk into your kitchen, but even that though, we can add dimensions of movement too which I love that you're talking about on that kind of very granular level, but from a bigger perspective for us to wake up and see that that has been removed from our culture, where we even have to be involved in our food in the first place. So taking a step of, let's get more involved in what we're doing in the kitchen and cooking and encouraging that with our kids growing things, even an action step, going to a farmer's market, for example, versus...

Now, you don't even have to go to the grocery store, you can DoorDash it, you could do whatever. We're just taking more and more steps out of the process of moving. Next, we're going to just have chairs that feed us, but you can go to a farmer's market, you can get

engaged with the farmer. I've been invited to go to their farms and things like that, you can get closer and closer and closer to your food, there are folks who are still gathering things, they're still foraging, they're still hunting, and they have a different level of association and activity involved, and there's an honor that they experience, it's like something very primal we tap into. So yeah, it's a very different world and... One of the other terms that you use in the book was snacktivities as well. Can you just talk about that a little bit?

KATY BOWMAN: Let's get snacktive. Well, yeah, that's... Food moves our snacktivities, it's choosing a task that meets multiple needs at once, you're meeting your food need, you're meeting a movement need, and then you're also often meeting a learning need, and then if you're doing it together, you're meeting that family time need. And then if you're doing it outside, you can add a nature need at the same time. So a snacktivity is a whole list of tasks that you can do. So for example, right now, dandelions are everywhere, so going out to forage dandelions, if you know what those are from an area that's not spread, there's so many things that kids can do and then you can cook with them, and they're not only a nutrient-dense wild food, it's also plant understanding, it's just, again, learning something about your environment, recognizing and edible food.

So that's just an example of a snacktivity, they're just tasks that blend food or eating with something else besides eating anything else, but it's usually movement, that's the active part, and then you can layer it on. If you bring friends... We throw lots of snacktivity parties where I know that not everyone wants to do all the work or can't do all the work to get cream and jars and shake it up, so I'll have all the kids come over after school, I'm like, "This is what you're going to make today, you guys are making the butter, here you go," and they are spending time outside, and it's not even about the movement to shake the jar, it's about the fact that they get that free play... That free group play, we're not in school, it's not a recess time, there's no rules about this particular game, it's just a freedom.

So that's what, snacktivities really open that door to restore the relationship between movement and food. We've got it backwards now. We're trying to exercise off what we eat, it's reversed, it's like movement, it's like movement is the atonement for the sin of eating negative and negative, not the other way around, where... How grateful am I that my body is allowing me to do this movement to get this other thing that nourishes me, it's all backwards in our mind, we've got it reversed.

SHAWN STEVENSON: Katy, I'm going to have to take a nap after this, just to let it... Okay, so in this section, which the chapters here are phenomenal, there's so many different aspects of these containers, but one other thing I'll just highlight really quickly because I cannot let you go without asking you about something, you brought it up earlier actually, but one of the other things you talk about in this section is the movement involved in eating the food itself and

how that's been changed, for example, and now it's just like everything... Even if we don't realize it, it's just so many soft foods, it's just like soft foods forever, forever, whether you're a baby or not, we're still doing this Gerber thing.

KATY BOWMAN: Smoothie it up.

SHAWN STEVENSON: And why this is crazy, is just like, even we have this idea, like for example, a potato chip is crunchy just for like one and a half bite and then it turns into mush, eating a crunchy potato chip or a goldfish cracker that dissolves instantly, this vanishing caloric density versus biting down on a carrot or an apple or whatever the case might be. These are all mechanical inputs, mechanical nutrients that we're lacking today that are yielding strange developments in how our face is even formed, for example.

KATY BOWMAN: Yeah, so you could call it mastication, but it's this idea, think about what you think about your biceps and your hips needing movements, like your jaw is one of the most powerful joints in the body, and assume they're doing nothing from the time it's born to the time you die, it's just mush for days, and it's also this idea of your body has a lot of stacked functions, so chewing isn't only to masticate food, your body has put upon your joints many other jobs. For example, chewing also moves blood up to your brain, what's the consequences of not chewing?

And then I put in a section on the mechanics of breastfeeding early on, it's like an early infant jaw workout, and it's not only to get food, it stacks getting food with... I do this thing, it's like, chew something and put your hands on your temples, and if you chew down, you're going to feel that showing is moving way up high on your skull, it moves lots of parts, it's part of... It's the exercise program that lets your jaw know how big to be, what shape for your face bones to make.

We spend a lot of time dealing with oral motor and dental issues, because the suggestion is the mismatch between the workouts our jaws used to get and the workouts that they get now, and so it's just another exercise, and they're finding that kids... They did a study on kids at schools, throw... I know you love food, throwing away whole pieces of fruit that were given to them in the lunch line because they were too hard to eat, the holding of the Apple and the stretch of your mouth and biting it down. So they found that if they slice the apple, the kids would have no problem eating them, that the work of eating the whole Apple was really foreign and it caused a food waste, so it's like I can't interact with a whole apple, I can only interact with a pre-moved Apple, someone has to move this apple for me.

So, the jaw is such an important piece of human equipment, it's a tool, it was used for more... This is ancestrally, used for more than just chewing the finished food, it was used for making...

It was used for... We're so used to food being edible, but when you pull food from the bush, it often needs quite a bit of movement to even become edible, and the jaws of many cultures have been used to convert things on the landscape into food by going through this phase, there's a lot of foods that were made by chewing and spitting, ripping things off with the teeth, converting... Using it as what we would now use other tools for, and the benefits are, we all get nice smiles and there's no broken teeth or things like that, but there is also the trade-off, and there's also going too far, which is, we don't chew anything anymore.

So get some jerky, get some dehydrated mangoes, put some carrots in there, start your kids young on... I will sometimes just put a whole carrot in a lunch box, it's not nothing, it's like, "Here you go, if you're hungry, you'll eat it," when they're young enough, they just learn like, this is how you interact with a carrot, it doesn't have to come pureed, it doesn't have to be mushed. Once you're able to chew, it can be a jaw workout, it's fine. That's what it's for.

SHAWN STEVENSON: I love this so much. Katy, I want to ask you about everything in the book, but I want to talk to you about one final topic, because we're all doing it right now, which is this clothing container, this is another container, another container that influences our movement significantly, so can you share your insights about the clothing container. And specifically, I really want to talk about the containers that we put our feet into, of course, so talk about the clothing container just briefly, and then specifically the ones that we put our feet in.

KATY BOWMAN: Well, we get dressed every day, and if we just think about kids, we don't necessarily think about when I get my kid dressed in the morning or they get themselves dressed, can their arms go overhead? Do their jeans allow them to bend? Can they lift one leg up off to the side? We just assume that covering is a covering, these are the clothes that our culture wears, but a sedentary culture breaks cloths up into exercise or movement clothes, and then the rest of the wardrobe. We don't call those non-movement clothes, we don't call those sedentary clothes, those are just clothes, and then when we want to step outside and move, we put on our movement clothes.

But many kids every day are dressed in clothes that actually prevent them from doing a movement that they are otherwise capable of doing. And shoes are a big one, especially for little kids, kids are often put in these big clunky boots, especially rain boots, that here's a little tiny foot in there, and kids are such emerging computers monitoring their environment, learning how to balance, they're already struggling how to walk and then sometimes they're wearing these boots that pass over their ankle and go up to their knees, and they're trying to figure out how to control the subtle... The subtlety of their body, and they've got these weights on their legs that make it so the first joint doesn't even work, and so they start lurching around and we're just like, "That's how kids move." It's like, "Yeah, that's how... “We really have this

understanding, if these are the shoes our culture wears, then yes, this is what early movers look like, but if you remove the shoes, they don't necessarily move like that.

We're not really as keen on seeing our influence in how kids are moving around. And then for grown-ups too it's the same thing, you've got 33 joints in each foot. Take your hands, spread your fingers, wiggle your fingers, imagine playing something on the piano. Your feet do that too, but we don't bind our... We don't put mittens on our toddlers. Imagine all of these little... If you've ever had kids, you've watched them learn how to grasp a knob, pick up a, pick up anything, it's like a tiny robot, they're curling their little finger. Now, imagine putting a mitten on that kid, how would they explore the world? And if everyone had mittens on their hands, you would just say, "That's how kids move, that's how kids explore the world." So it's just that same phenomenon of, we're really into... We put walls around a lot of things, as humans right now. You got foot houses and you got, you got waistband houses and you got an upper body house, we just, we put ourselves in lots of things for whatever reason. And there are things that we could choose that would allow for a lot more movement for us and our kids.

SHAWN STEVENSON: That's so good. So I'm thinking about obviously the functionality, so that's a big word that a lot of folks are... Part of our lexicon today is the functionality of what we wear. And so for example, jeans are a big part of the culture, becoming less in a sense because it's been a shift over to tights, but even jeans have now become much more pliable and movable, you could squat down and move around in your jeans pretty well. And I remember I was just talking with a guest on the show not too long ago, Emily Fletcher, and she mentioned how jeans used to be, and she referred to them as wearable pain, and I was like, "That's so good."

KATY BOWMAN: Yeah, yes.

SHAWN STEVENSON: That's so good. Until you, "Break them in." And it's the same thing with the shoes like, "Oh, you just got to break them in," these shoes are incredibly uncomfortable when you put them on, you got to break them in. But in reality, there's so many mechanical nutrients that are missing because of the types of containers that we put on our feet. So can you talk about just a little bit about some of the things for us to be mindful of, like for example, with the heel of the shoe? Let's start there.

KATY BOWMAN: Well, the character... You can look at a shoe in terms of the way it affects movement by heel height, and even a trainer or a sports shoe, I'm not talking about heels, high heels, I'm just talking about how much the heel of the shoe is elevated over the toe, so that's one. Another one is the narrowness of the toe box, so the part where your toes are in. If you spread your toes away from each other when they're out of the shoe and you trace that on a piece of paper, set your shoe over it and see if the front of your shoe is more narrow than your

foot would need to be if it was really dealing with balance or stretching out on the ground, so we tend to reign the front part of our foot in often. Another one is upper. So if you're in California, there's a lot of flip-flop action going on. So an upper is the part of the shoe that connects your foot to the bottom, so if you put your foot all the way in a shoe and lace it up, that's a full upper. But when you start getting into a flip-flop, that's a partial upper, and what makes it partial is not how thin the straps are, it's the fact that they don't go around the back of your foot. So your foot's always almost sliding out a little bit, so you've got to do, you have to change your gait in order to keep those shoes on, maybe you'll grip your toes a little bit. Same thing for any shoe that slides on really, even if it's a full clog or slide on, you got to do something to keep it from flying off with every single step.

And then the fourth one is the flexibility of the sole. So if you grab your shoe, hold a heal in one hand and the toe of it in the other, and you twist in opposing directions, you're going to see how flexible the sole is on that, as a transverse axis, and then you could bend the front towards the back and you see how well it folds. And that gives you a sense of how much feeling of shape beneath my foot is making it up into the muscles and bones and neurology of my leg, or is my sole so stiff, I'm not really getting the message of the shape beneath my feet? And because shape beneath your feet informs your brain quite a bit, it's a tactile, it's letting you know how to adjust the rest of your body. So we've kind of made a repetitive environment for our shoes. It's like, "Oh, there it is again, same flat level, same flat level, same, same, same, same, every day, it's just the same, same carpet." It's like, I got these, my feet in comfortable sock bags, and it's just a neutral, repetitive environment. So you mix up your shoes, you allow more of nature to get into your feet. Again, stimulate lights up your brain, it uses different muscles to do that.

SHAWN STEVENSON: The new Wind Beneath my Wings for everybody is going to be The Shape Beneath my Feet.

KATY BOWMAN: Shape...

SHAWN STEVENSON: Alright, "You are the shape beneath... “Alright, so I love this so much. This is so, so good. So insightful, so powerful. And I love, you make this statement in the book, because I know as soon as the word heel came up, I know some people were like, "I'm not, not my heels." And you say this very explicitly in the book, you say that, "It's not what you wear," so I think... Okay, I'm just going to directly quote you. So what do you say in the book is that, "It's what you wear most of the time that matters," right? This doesn't mean that you can't have your fun time, you can't wear your Jordans, your high heels, your stilettos, all those things, that's all good. But it's what you do most of the time, and I thought about this, the shoes that I wear most often are ones, and you have a picture in the book of some kind of curled up shoes, some balled-up shoes, and those are what I wear most often. It's like some older free-runs

when they were really pliable, like I could roll it into a ball, and those are the shoes that I wear most often. Whereas from time to time, of course, if I've got this going on, I put on different shoes, and I can notice the difference, that's the thing. And I think it's for us to tune back into that mechanical feedback that our bodies are giving us, when we're wearing shoes that are a little bit abnormal or a lot abnormal.

KATY BOWMAN: Noticing the difference is a gift. That's the whole point. The point, we all, we're all a culture, like I said, but we all have individual cultures where no other culture matches up. You don't share the culture of anyone else, you are unique in that way, you've got... You have your apparel in the sense of apparel is also self-expression, so it's not trying to mess with self-expression or even, you might actually feel better in certain ways, but it's that in many cases, we are imparting a lack of contrast. You can't even feel what a... You don't know enough to know if you don't like the way your feet move when you're walking is you've never felt them before. So it's just making sure that you're providing the full experience so that then as we go on to grow up, we select how we want to move forward versus having no awareness of something, of movement, in this case. I'm saying, there's a lot of movement to be aware of, you can certainly choose your movement flow going over, but I want to make sure that you're making as much of an informed choice as I can give you. So what you wear now and then, even every day briefly, is not the same as what you're doing all of the time. So it's like, you don't tell people not to have dessert ever. No, it's the same thing.

It's a balance, it's just understanding like, I'm going to look at how this affects my body over time, I'm going to experiment with myself, and it turns out I actually do prefer the way this looks and feels when I'm wearing in these situations and I'm going to adjust the rest of the time with this choice. And that's what we're all after, is just as much information as possible.

SHAWN STEVENSON: Absolutely, the new book available everywhere right now is Grow Wild, and we're just scratching the surface. We've only talked about the culture container, the clothing container, the cooking container, just little bits of it, and we didn't even get into the home container, the learning container, the activities container, the celebration container. So much good stuff in here. It is an absolutely beautiful book, the photos in here, if you could share a little bit about where the photos are coming from, and then also please let everybody know where they could pick up the book right now.

KATY BOWMAN: So no stock images, all of those photos were just submitted from families doing it in different places, in different situations, so that you could see the range of how people are getting it done, 'cause you have to fine-tune it to your life. So it's beautiful. I really... People submitted stories, so they're all real, nothing posed in there, just life in action. And you can get it at growwildbook.com, or Amazon or bookstore or wherever you go.

SHAWN STEVENSON: All the usual places. You could pick it up anywhere books are sold, or go to growwildbook.com and pick it up like yesterday. I's so good, I think that everybody needs to have this book, and it's a great book just to have laying around and also for kids to just dig through, I think they'll do some modeling just looking at the pictures in here.

KATY BOWMAN: I wrote it, I wrote, I said, we're highly visual at this point, 'cause of social media, I think. So I'm like, I'm going to put photos in here that even if the grown up in the house didn't read it, when kids go through it, they're going to be like, "Oh, movement's a thing," and so I've seen kids pick it up and pore over it and they're so excited as they go through. So it's a field guide to movement that you will use for years.

SHAWN STEVENSON: Definitely, definitely will. And Katy, I appreciate you so much. And it's always just amazing connecting, I always walk away with my mind blown a time or two. And again, this is... These types of books really stand the test of time, these are essential things that all humans should have access to. So I'm just so grateful that you take the time and energy to put it together for us.

KATY BOWMAN: Thank you, Shawn, thanks for having me. I always appreciate hanging out with you.

SHAWN STEVENSON: Awesome, Katy, you're the best.

KATY BOWMAN: Likewise.

SHAWN STEVENSON: Thank you so much for tuning into the show today. I hope you got a lot of value out of that. It's one of the biggest take-aways for me, there's so many, is our bodies are constantly asking this question, "How can I make this easier for you?" In helping us to adapt to whatever it is. Our bodies do not like to be able to not do a thing. And so this is how the human body really grows and adapts, and also in the context of our brains, growing and adapting to the environments that we are faced with or the environments that we put ourselves in. And so the body is always asking, "How can I make this easier for you?" This is why when you first go to the gym, my very first time going to the gym, I was 15 years old, I went with my friend, and it was like a kid in a candy store. But I'm not going to go just right over and start bench pressing the 135, those original plates, once you get to the big plates, it's a big step. So the first time ever, right out of the gate going to the bench press, you start with the smaller plates, maybe put the 25s on each side, and that might be a struggle when you're just a kid, 12, 13, 14, 15 years old. And from there though, the body gets that stimulation, it gets that resistance and the body's like, "You know what, I'm going to make sure that you... Faced with that again, that you're going to be more equipped."

Because in the gym, what we're trying to do is really replicate what we, you'd experience in the real world, which there's not many situations where you lay on your back and you push something up over you, so there's that part, but also understanding that even with that stimulus, the body is growing and adapting, 'cause it doesn't want to feel like it can't do a thing. And so that's where it gets stronger, it's not just the laying down of more muscle, there's so many mechanics, mechanical nutrients that take place with ATP, starting to really feel like we can generate and create new of these, new additions of these energy power plants in ourselves, we do have that capacity. But also there's a shift that's taking place in the chemicals that are being produced. If we're talking about the construct of certain hormones are getting produced, which are relaying messages not just through to the pecs, your pecticals, your chesticles, but also with other parts of your body. Your chest doesn't just get stronger and your arms and your shoulders, but your whole physiology is changing because of that introduction of that response.

The body is always asking, "How can I make this easier for you?" So that's just a general construct that we can rationally see, but our bodies are doing that same thing if we're sitting for hours upon hours, upon hours, upon hours each day. It's like, "How can I make this easier for you?" Let me design your body and your physiology and your biochemistry in a way that makes this experience of you sitting in this chair easier for you to do. And we got to wake up and see that. We're conditioning ourselves, allowing ourselves to be conditioned and conditioning ourselves because of the cultural container, to be less of our potential, to be less human. But we can still be human and be designed, become very good at chair sitting, but is that what we're designed to do? Is that our capacity, is that our potential? And my belief, and especially after this conversation, is that we are designed, we're... Our template is for so many dynamic forms of movement, and we also have a generally low diversity of nutrient movements that we're taking in. If we look at that in the context of food, we want to have a diversity of foods that we're taking in, diversity of nutrients, but that's the same way with our nutritious movements, having a diversity of things. So where can you explore and use your body differently today? Where can you find some creative movements throughout your day and start to see the world through the lens of movement opportunities? It's just little things.

This could be just when I go walk with my son, he's much more apt to jump up onto the side of the curb and use it as a balance beam, pretending that it's a balance beam. One of the great exercises that we can do is just model our kids, do what they do. They're tapped in, that expression, that innate intelligence in using the environment for movement, they haven't been conditioned out of it. And so it's a natural human tendency. So do what your kids do. Also, one of the things that I find myself doing, thanks to my conversations with Katy again, it's just been so amazing because I always walk away with something new and new insight, is all the time spent on the computer, for example. There is just not a healthy way to go about writing a book. It's just not a healthy thing to do, and the amount of hours putting into Eat Smarter, for

example, it just doesn't make sense. It would blow people's mind. But going from my first book, Sleep Smarter, well, first major published book, and that kind of movement that came behind that, I learned some things along the way about the writing process of, because it just doesn't feel good to be at the computer for so many hours. So now I'm like, "Okay, let me... “Every two hours, I'm going to go for a short walk, whatever the case might be.

But what I added in as well was exercise for my eyes because staring at a fixed screen for all that time for many of us, millions and millions of people do this every single day, that fixed destination, and it's essentially putting a cast onto certain parts of your eyes and putting them in this fixed position. And so when I go for that walk, I also do this exercise where I look off into the furthest distance that I could see, maybe it's a tree branch way off in the distance somewhere, or maybe it's a bird way off in the distance somewhere or a house way off in the distance somewhere. And I fix and start to exercise my eyes, since I've been looking at something so close, look at something extremely far away, as far as possible, let me give my eyes a little bit of some mechanical nutrients. So I conscientiously do those things. And so we don't have to be perfect about these things, but we get these little bits of mental nourishment as well in the form of these conversations and these insights and things that we can, if it fits for our lives, we can put it into place. And that's what it's really all about, at the end of the day, is finding more creative ways to be more human, to play more, to reach more of our potential. So I hope you got a lot of value out of this episode, if you did, please share it out with your friends and family on social media. You can tag me, I'm @shawnmodel, and you could tag Katy as well, she's @nutritiousmovement on Instagram.

And on Twitter, I'm @shawnmodel. And Facebook, I'm @themodelhealthshow. And of course, you could send this directly from the podcast app that you're watching or listening on, just send it right to somebody that you care about, spread the good news, spread the positivity, spread the insights, and let's keep this momentum going. I appreciate you so very much for tuning into the show today, we got some epic shows coming your way very soon so make sure to stay tuned. Take care, have an amazing day, and I'll talk with you soon.

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