

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

EPISODE 668

How To Eat, Train, And Think To Be Fit And Function For 100 Years

With Guest Mark Sisson

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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. I have a friend who's about to celebrate his 70th birthday, and he's also one of the fittest, most high performing, most cognitively sharp human beings that I've ever met as of today. And when we're talking about this conversation around longevity, it's obvious, but maybe not so obvious in our world today. It's obvious we should be looking to people who've actually achieved said longevity. We can be inundated with information that is idealistic and hopeful about longevity, but to hear it directly from people who are living that life, who are thriving at a higher age bracket. And it's such a gift today because we have access to people like our special guest today. And again, he's about to celebrate his 70th birthday and just having the opportunity to sit down with him and to pick his brain and ask these questions to get some directives on nutrition, on movement practices. What is his secret sauce? That's what we're going to be talking about today. So, I think you're going to absolutely love this episode.

Now, one of the things that fuels the human body from the moment we are conceived until our very last day, what's driving all of our metabolic functions, if we're talking about this sodium potassium pump and the application of our mitochondria, right? These energy power plants within ourselves that a lot of people have heard about at this point, but for them to actually run to generate said energy and also for them to replicate. So mitochondrial biogenesis to create more mitochondria. So, we're emitting and powering more of ourselves in a more efficient and intelligent fashion. There are certain nutrients that are critical for this to even happen. And this class of nutrients are minerals that carry an electric charge. So, they're called electrolytes, they are put under this umbrella of being called electrolytes. Now, without electrolytes being present again, we can't make new mitochondria. Our cells can't efficiently communicate with each other, whether we're talking about our heart cells or our brain cells. Going back and talking about some of the shows we've done with world leading cardiologists and them sharing how magnesium is used in the surgical domain to help to keep the heart pumping when undergoing surgery, for example, like magnesium is literally needed to keep your heart beating. It is that important.

As a matter of fact, we know that magnesium is responsible for over 650 biochemical processes in the human body that we are aware of. It's probably more. It's a lot going on. That's how important it is. But it's also the number one mineral deficiency in our society today. About 56% of Americans are deficient, chronically deficient in magnesium. That's just one electrolyte-driving process. Another one is sodium. When we think of sodium, we tend to think of salt. But these two things are not synonymous. There are a variety of different types of salts. There are potassium salts, magnesium salts, calcium salts. Sodium salt is one type of salt. And the reason

that we tend to lump that together is because of the innovation of ultra-processed foods and how much sodium salt is added as this preservation tool. And we've evolved. Humans have had this deep connection with salt. Even the word salt is derived from a word meaning salary. So, there was a time when people were getting paid in salt. They were more salty in their interactions.

But today, once we remove or move away from having so many ultra-processed foods in our diet, now we're having this gap potentially. And we actually deeply need sodium in order to maintain our insulin sensitivity, for example, so that we can store and utilize body fat efficiently. We need sodium to enable our brain cells to talk to each other. Researchers at McGill University found that sodium functions as a quote "on/off switch" in the brain for specific neurotransmitters that protect the brain against degeneration and also improve cognitive performance. This is no joke. This is something so important. We need to make sure that we're getting viable, high-quality sources of these key electrolytes. Don't even get me started on potassium and muscle function. We get all these combined. This is definitely a good place for us to go to a supplement that is actually doing things with high integrity. We know the importance of electrolytes in sports performance, for example, but it's really about life performance.

And for me, the company that's doing it the right way with no artificial colors and just abnormalities, sugar that doesn't need to be coming along with our electrolytes, the company that's doing it the best is LMNT. Go to drinklmnt.com/model. You're going to get a free sample pack with every single purchase of electrolytes.

All right, so once you go to www.drinklmnt.com/model, grab any of the electrolytes that you like and they're going to send you a free bonus pack, a free variety pack gift just so that you can try out the other flavors as well. So again, go to www.drinklmnt.com/model, take advantage, get your free gift, stock up, get yourself optimized by up leveling your electrolytes. And on that note, let's get to the Apple podcast review of the week.

ITUNES REVIEW: Another five-star review titled "A Realistic Breath of Fresh Air" by Shark Martin. "I've thoroughly enjoyed my listening experience with the show. There is so much knowledge to acquire and this is an excellent source that provides relevant information."

SHAWN STEVENSON: Awesome. Thank you so much for leaving that review of an Apple podcast. I truly do appreciate that. And if you had to do so, you can pop over to Apple podcast, and leave a review for the Model Health Show, spread the word. Make sure that you're subscribed on whatever platform that you're listening on. Hit that subscribe button so that you don't miss a thing. And without further ado, let's get to our special guest and topic of the day. Our guest today is New York Times bestselling author Mark Sisson. Mark is the founder of

Primal Nutrition and Primal Kitchen and the man behind one of the most popular health websites on the internet, Mark's Daily Apple. Mark has been featured on a variety of major media outlets and now he's back here on the Model Health Show to share what he's up to and again some of his latest and greatest insights into optimizing our health and improving our longevity. Let's jump into this conversation with the amazing Mark Sisson.

All right, we have a legend. I don't use that word lightly. Mark Sisson here in the building. It's good to see you, man.

MARK SISSON: Likewise, Shawn. It's been a minute, huh?

SHAWN STEVENSON: Yeah. Yeah. So, listen, when we're talking about the topic of longevity, I firmly believe that it just seems logical to talk with people who's actually achieved longevity. And so, for me, you are one of those people in my mind that I aspire towards and really admire and also the fact that you're still tweaking and testing and optimizing. And so, in the topic of nutrition, I want to ask you, what are three foods that we need to target overall for the average person if we want to contribute to more longevity?

MARK SISSON: It's like anything we talk about in this realm. It's a nuanced question with a complicated answer. And I would preface everything by saying that the best thing you can do would be to avoid certain foods in terms of longevity. So, if you can avoid industrial seed oils, if you can avoid sugar, sugar beverages, added sugar to whatever it is you're eating, if you can avoid processed grain products. Those are sort of the first... That's the first level of being on the road to longevity. Three foods that you can eat, I would say always, number one, a quality source of protein. So, whether you're into carnivore and you're eating a lot of steak, lamb, pork, or you're pescatarian and you eat fish, that's a great source. Eggs are a great source of protein. Even if you're a vegetarian, you can probably mix and match some of your bean sources and your rice things. And that's not my area of expertise and I don't highly recommend it, but if that's your thing, there's a way to optimize protein intake in that regard, so.

SHAWN STEVENSON: Can you talk a little bit about why that's so important for longevity?

MARK SISSON: Well, I think, we can take a step back and say that longevity, my idea of longevity is like, how can I live the longest thriving? I don't want to just live long and be sitting in a wheelchair drooling and wondering who it is that I'm talking with. So, I want to define longevity in certain regards with mobility. I want to be mobile throughout the rest of my life. Not just to be able to get around and leave my apartment, if you will, but to travel the world and to experience face-to-face interactions with people, and then access to cognition, to memory. So, if I'm able to access thought and respond to questions and have mental pictures of things that happened to me, not just last week, but 40 years ago. So, mobility and cognition are the two

big issues there. Once you sort of get over that first kind of goal, check that box off, muscle mass is the big determining factor of whether your body can keep up with those goals. Whether your body can produce enough energy to move around and to be able to maintain a strong, active, lean muscle mass to pump blood to the brain so that the brain works sufficiently and so that the capillaries within the brain are not clogged up or with plaque or whatever.

So, muscle mass becomes an object or an objective. And how we get muscle mass is by doing work, by creating the need for the body to want to build muscle or at the very least to want to hold on to muscle. Typically, our bodies want to be lazy. They want to conserve energy. They want to sit around all day and do nothing. They don't want to burn fat stores. Our bodies are kind of these survival packages that we have with us, and we sort of have to trick them, if you will, into doing things that take energy because we know that energy is available. So, if we can say I'm going to go to the gym and lift weights, that's going to prompt my body with certain biochemical responses to the workout, whether it's lactic acid or whether it's metabolites of any of the high intensity workout. The genes that I have, the genetic recipe that I have within me will respond by building more muscle or maintaining muscle mass or getting stronger. So, the challenge is to figure out what signals are going to optimize my muscle mass, and certainly eating protein is an integral part of your body's ability to repair and build muscle once you've done the workout. So doing the workout is sort of step one and you and I know a lot of people who work out too much.

They think the workout is what's causing the body to respond and build muscle but it's a combination of that, that hormetic event, that short term stress and a little bit of rest and nutrition and that's where the protein comes in. So now we want to lift weights, we want to increase the amount of protein we take in so that the body responds by either maintaining or building more muscle mass and more strength. Certainly, protein is involved in enzyme creation as well, so all the enzymes that are controlling the different biochemical processes going on in the body involve amino acids and protein. So, it's a complex equation and the muscle mass thing people don't quite grasp, like why would muscle mass be so integral to longevity? I know old people who are skinny, and they've lived a long time and they don't appear to have much muscle mass. Well muscle mass, that part of the equation combined with strength and power is what causes the rest of the organs in the body to have a reason to keep up with the muscles. So, it's a little bizarre but the brain says I'm going to go to the gym and I'm going to lift weights and I'm going to do curls or I'm going to do squats and then the signal goes to the body to build these muscles up to get stronger, to keep up with the amount of work that the brain is choosing to do.

But in the process, the body is trying to figure out how best to utilize all of the organs to achieve this goal. So, when you say I'm going to lift a heavy leg dig, the heart goes, I guess I got to beat faster to keep up with the demands that this clown is putting on me right now in the

gym. So, the heart has to beat stronger. Or if you say I'm going to go for a hike or whatever, the heart has to beat stronger. If you are doing intervals, if you're doing high intensity intervals, the lungs have to breathe deeply and so they have to inspire, and they'd have to take in oxygen to provide that oxygen to help fuel the muscles to do the work that you're choosing to do. The liver has to process fuel more efficiently and so by choosing to do the work and by choosing to use muscle mass and muscle strength as sort of the focal point, everything else comes into play here and you get this complete individual that is now not just strong and able to move around the world and do the things that people who are older want to do, travel the world and have access to memories. But it's also in a situation where you get up in the middle of the night to take a leak and you trip and if you're strong, you trip and you laugh it off and you walk over and you go back to sleep.

But if you don't have the muscle mass to, if you don't have the balance, if you haven't worked all these systems, the typical sad scenario is that the old person gets up in the middle of the night, trips, falls, breaks a hip. The hip breaks, by the way, because the bone is not strong enough, the bone density has been compromised because the person didn't do enough weight-bearing activity to cause the body to want to build stronger bones. You got to take that if you don't go to the gym and you don't do this work, the body goes, "Hey, don't need to build muscle, don't need the heart to beat that fast, don't need the lungs to breathe in that much, don't need the bones to be that strong. Why would I waste valuable resources building strong bones if we're not going to do anything with it?" So now the person winds up with a broken hip in the hospital and the sad trajectory is typically they get pneumonia in the hospital and they can't cough well enough to get rid of the sputum and then the heart can't beat enough to keep up with the demands of the infection, because you've only been working at 10% of capacity for the last 15 years and so you die of congestive heart failure, you die of pneumonia and ultimately people die of basically organ failure. People don't die of old age, they die of whatever organ says, "I'm out," whatever organ taps out first.

So, longevity is really this sort of game we play of how to maintain muscle mass, how to maintain aerobic capacity, how to maintain liver strength. We call it vital capacity of the different organs and vital reserve. And if you understand this basic concept, then it makes sense that you would go to the gym and do squats once a week and do pull-ups and do a little bit of sprinting. Sorry for the long-winded explanation here.

SHAWN STEVENSON: This is fantastic. Because our culture is so focused just on the aesthetic part of it and not really looking at the fact that... And we should have known this decades ago and I think our ancestors did, that muscle is really an endocrine organ and it's releasing all of this chemistry. And now we know things like myokines for example that when you mention somebody going in and falling ill with pneumonia, and we think about how our muscle even influences our immune system. The list goes on and on and on. And the coolest thing about it

is that this is something that we can create We actually can make more of it and we can maintain it and care for it, but it becomes even more in a sense important as we age.

MARK SISSON: Yes. Yeah, no, it becomes your number one job as you age. I would say anybody over the age of 45 would be well served to consider fitness and health job, number one. And you hear these stories about all these people who spent their prime years from 25 to 50 building a business and making a lot of money and sacrificing their health and sacrificing their relationships with their family. And I'm like, "Dude life is about enjoyment in the moment." And the number of people who... You ask them if you could... People spend a lot of their lives making money and losing their health. And then they're like, "I would give out all my money to have my health back." Well, that's not necessary and that's... So, you should really think of your health as job number one after the age of 45. And that means when somebody says, "Well, I can't get to the gym every day because I just don't have the time, I'm working too hard." No, job number one is to get to the gym or go outside and walk and make your business calls while you're walking. Or do micro workouts throughout the day where you drop and do 50 air squats or 20 push-ups every once in a while.

And do a plank for two minutes, all that stuff counts. But if you cast it all aside and say, "I'll wait till later to do that." Sometimes, I'm not going to say it's too late because we see a lot of people turn around at age 50 and 55 and start to get healthy again. But the good news is, I know you know this, as a former athlete, you can coast on the years that you spent working out between the age of 20 and 45, you can coast, but you have to do the work, but you can coast for the next several decades, right? But health has to be, it has to be job number one.

SHAWN STEVENSON: Yeah, yeah, so powerful. It's just building a healthy foundation. And in particular, my son and I say this all the time, my oldest son, if you don't eat, you don't grow. And so, in particular, if we're talking about having that stimulus with the training, protein is that foundational building block. And so, as we age, there's conversations about whether or not we metabolize protein efficiently, but we know that if it's available, your body's going to do the best job that it possibly can. And so, making it available. So, we got protein as number one.

MARK SISSON: And we only got to number one so far.

SHAWN STEVENSON: Let's go to number...

MARK SISSON: We got three. We got two more to go.

SHAWN STEVENSON: Number two, if we're looking at longevity, what should we be eating?

MARK SISSON: I mean, I would say healthy fats. I'd say a good source of energy would be healthy fats, avocados, avocado oil, olive oil, certainly the fats that come built in with salmon and certain types of fish, fatty fish, even with steak and beef and with lamb and pork, those fats all count. They're all... This fear that we've had of saturated fat over the years is unfounded. Now, I wouldn't say find ways to add saturated fat to your diet over and above your protein sources, but macadamia nuts, coconut, they have a certain amount of saturated fat, they're healthy, they're good. So, protein first, fats second. And then you and I talked offline about this, I think berries would be the third kind of interesting longevity food to include in moderation. And when I say that I have in mind this notion that I don't eat that much bread, I don't eat a lot of carbohydrate in general, I'm just not a carb person. So, I don't eat a lot of rice, I don't eat a lot of beans, I don't eat a lot... So, what do I eat and what would I choose? Again, if I had to choose three foods to live on for the rest of my life, it would be steak and it would be probably avocados and blueberries, all right? If I had to pick three individual kind of foods and somebody said, "That's it, that's your menu for the rest of your life." Now, having said that, I try to be as inclusive as possible in what I eat 'cause I love to eat.

I like crunchy things, I like crunchy, fatty, salty, sweet. So, I'm not suggesting that these three foods should form the cornerstone of your diet. What I'm suggesting is that... Well, you put the pressure on me, Shawn, to come up with three. I'm going to say, I could maybe narrow it down to 20 foods that I would eat if it was limited to just that and those 20 foods would be enough to satisfy me. Wouldn't be less than 20 'cause I like, even though I'm mostly carnivore, I like... You talked about Brussels sprouts and bacon. I mean, come on, man, that's an amazing dish. I like some different kinds of fruit. Every once in a while, I'll have a salad. I used to eat salads every day, I don't anymore, but I like the crunch of a salad. So, I want to be as inclusive as possible knowing that I have the metabolic flexibility to be able to process any type of food within reason that's on a list of natural foods, right? To be able to process this, extract the energy, build muscle from it.

SHAWN STEVENSON: The first time that I heard that term was from you years ago. And now, of course, it's a popular part of our lexicon now. Can you, being the father of metabolic flexibility, talk a little bit about what that is and why that matters.

MARK SISSON: Sure, well, first of all, I'm not the father of metabolic flexibility, but I like to think that I helped popularize the term because it's a very important...

SHAWN STEVENSON: Stepdad.

MARK SISSON: Stepdad, there you go. 'Cause Robb Wolf was talking about it the same time I was. And we both recognize that...

SHAWN STEVENSON: Okay, so we got Mark Wahlberg and Will Ferrell, daddy's home, all right? So, you guys are the stepdads together. Okay.

MARK SISSON: There you go, okay. Put it all in context. Now I have a picture...

SHAWN STEVENSON: I'm going to put your faces on their bodies on the cover of the movie.

MARK SISSON: That's funny. Yeah, so metabolic flexibility describes a condition of the body, a healthy metabolic state where you're able to extract energy from whatever substrate is called upon for the work involved at the time. What that means is that you can burn fat throughout the day when no other real work is necessary. You can derive 95% of all of your energy just from either the fat on your plate of food or the fat stored on your body if you're metabolically flexible. When you go to the gym, if you need to do glycolytic work, you don't really ever lose your ability to burn glucose, carbs, glycogen, but you're more efficient at burning these. You become metabolically efficient in that you can utilize the ketones that are produced through a byproduct of fat metabolism in the liver, and these ketones can offset your need for eating glucose or eating carbohydrates. So, you become adept at eating the fat on the plate of food, the fat on your body, the glycogen in your muscles, the glucose in your bloodstream, the carbohydrate in your plate of food, the ketones that your liver makes, and even, to a certain extent, some of the proteins that you consume, some of the amino acids you consume. Now, the amino acid part of this is very inefficient.

Amino acids and protein should be considered structural, and I never understood why they even assigned a caloric value to protein. Like, I don't want to burn it. I want to store it as muscle. I want to keep it. I want to utilize it for the structural protein content that it's going to provide me. So, anyway, so this metabolic flexibility then describes a condition in which you really... When you're metabolically flexible, you don't need to eat that much, and that's one of the great revelations is that you think, "Well, I need 150 grams of protein a day. I need 300 or 500 grams of carbs 'cause I'm an athlete. I used to eat 1,000 grams of carbs. I need all this fat." Yeah, you can eat it and you can consume it, but you don't need it. When you become metabolically flexible and metabolically efficient, you realize that your body works very well off whatever stored body fat you have. If you restrict carbohydrates and lower insulin, you upregulate these enzymes and these gene signaling that preserves amino acid, preserves muscle tissue, so you can go periods of time, four, five, six days without eating at all and just consuming water and not lose much in the way of muscle mass and have all the energy you want, not get sick, not be hungry.

It's amazing how the body has this self-contained little apparatus that if you've trained it well, if you've become metabolically flexible and metabolically efficient, you literally don't need that many calories to thrive throughout the day. And it's such an empowering feeling to get there.

And so what I've done in a lot of my books, whether it was a Keto Reset Diet or Two Meals a Day, was utilize some of these strategies like a six week ketogenic strategy, not the rest of your life in ketosis, but six weeks of a ketogenic diet to upregulate, to increase what we call mitochondrial biogenesis, build more mitochondria, which is where the fat is combusted. Two meals a day was how do you use the periods of time when you're not eating, when you're fasting to, again, to upregulate mitochondrial biogenesis, to have the body respond by creating an efficient use of ketones such that at some point when you become keto adapted, you're so not just good at making ketones, anybody can make ketones, the liver does it all the time. If you've ever been around a carbohydrate centric, we used to call them sugar burners, which is most people, for any length of time, if they skip a day of eating, you could smell the ketones on their breath. Well, how is that?

Well, first of all, that's because the liver is making ketones, that's what it does in the absence of glucose, but because the body hasn't become adapted, isn't familiar with how to do that, it spills the ketones out into the urine and into the breath and into the sweat. When you become keto adapted, the liver goes, "Hey, I know how to handle this, I don't need ketones for the muscles, muscles know how to burn fat and glucose and glycogen. I only need ketones for the brain." And because the brain cruises along at a steady rate of energy utilization all day long, the liver doesn't have to surge with giant amounts of ketones because you're playing in a chess tournament. You know what I mean? So, you could be doing a heavy leg day and your met rate goes up to 40X and your legs are using what would equate to 3000 calories an hour, you're not doing an hour's worth of work, but for the amount of time that you're doing it. While you're doing this, the brain is just cruising along at maybe 25 calories an hour, something like that. And all of that can be fueled by ketones. So, in ketosis and in the absence of glucose, when you become, again, metabolically efficient, the body says, why would I even waste ketones?

I'm making 25 calories an hour worth of ketones, that's a couple of grams an hour, the body can make 750 calories a day worth of ketones if called upon to do it. So, we have all these amazing built-in mechanisms in the genetic recipe that we can tap into it, call upon to preserve muscle mass, to burn off excess body fat that we don't need, to maintain energy, to not get sick, maintain an immune system, and most importantly, not be at the effect of a hunger all the time.

SHAWN STEVENSON: Yeah, yeah. Got a quick break coming up, we'll be right back. I've got some very bad news for you about vitamin C supplements. Most people have no idea that typical vitamin C supplements are made from corn syrup or corn starch derived from GMO crops. The synthetic ascorbic acid found in most vitamin C supplements is structurally similar to naturally derived whole food sources of vitamin C, but they are not the same thing. Whole food and whole food concentrates of vitamin C have hundreds of other bioactive cofactors that make vitamin C work miraculously in our bodies, while synthetic vitamin C is the very

definition of a one-trick pony. In fact, by being devoid of essential cofactors, synthetic vitamin C supplements can be outright harmful to your health. For instance, a 2013 study published in the Journal of the American Medical Association, Internal Medicine, found that participants taking synthetic vitamin C supplements had twice the risk of developing kidney stones. Another study from researchers at USC found that a daily dose of synthetic vitamin C thickened the walls of participants' arteries two and a half times faster than those not taking the synthetic supplement.

This is absolutely insane because number one, it's one of the most popular standalone supplements in the world and commonly found in most multivitamins. Number two, whole food-based, whole food concentrates of real vitamin C are remarkably effective in lowering the risk of cardiovascular disease, even in people engaged in high-risk behaviors like smoking. A randomized placebo-controlled study published in the Journal of Cardiology had 20 smokers consume a whole food concentrate of vitamin C in the form of camu camu berry daily over the course of a one-week study, and it led to significantly lowered oxidative stress and lowered inflammatory biomarkers. What's more, there were no changes in these markers in the placebo group who received an ordinary synthetic vitamin C supplement. Because of the damage humans have done to the soil microbiome, levels of vitamin C are notably lower in typical foods. That's why I've been utilizing a whole food vitamin C concentrate blend of camu camu berry, acerola cherry, and amla berry for years, and I'm on a mission to spread awareness about this and get people off synthetic vitamin C supplements. The Essential C Complex from Paleo Valley is all organic, no synthetic ingredients, and no fillers. Plus, it has a 60-day, 100% money-back guarantee. So, if you aren't absolutely thrilled with it, you'll receive a full refund, no questions asked.

Go to paleovalley.com/model right now, and you'll automatically receive 15% off of your order at checkout. Vitamin C is critical for our immune system health, but also the health of our heart, our brain, our skin, and so much more. Target organic, whole food sources of vitamin C, and if you're going to supplement, make sure it's a whole food concentrate and not synthetic vitamin C. Go to paleovalley.com/model. That's P-A-L-E-O-V-A-L-L-E-Y.com/model right now for 15% off, and now back to the show.

Our bodies are... You're just highlighting how smart our bodies are and given the opportunity, and if you think about how we evolved, this is something that we are acclimated to do, which is to use different fuel sources, but what if we handicap ourselves under the guise of like an idealistic diet where we're keto for life, and then we have a phase where, for example, where we go and we're fasting, and the only thing we have access to now is an orange, and we eat that orange and we pass the f*ck out because our body is just not adapted to eating these carbohydrates, right? So, what I'm hearing is we want to keep those pathways open and

intelligent to utilize different food sources because that's how we're hardwired. Now, of course, there are caveats here.

There's a spectrum. If you've got Inuit DNA in you maybe the high-fat protocol can work more gracefully, but for the majority of us, it's going to be a spectrum. And you've seen this. You sent this over in an email. There's been this pendulum swing, and we become, even when we get into something that is far healthier than the standard American diet, we can become dogmatic about that thing, and this is the end-all be-all. And this is where I see you're at, you're getting to a place of inclusiveness and rationality and even kind of pushing back against people using some of the stuff that you popularized and then creating a prison for themselves and advocating that prison for others.

MARK SISSON: It comes down to a basic question, which is philosophically, like, why do I do all the stuff I do? Like, why am I involved in this exploration? And the simple answer is I just want to enjoy life. I just want to extract the greatest amount of fulfillment, pleasure, joy, satisfaction out of every possible moment. And for me, that includes enjoying food. So, I don't want to say, I'm doing this and I'm giving up all my hedonistic tendencies with regard to food just so I can live another two months, maybe, at the end of my life, right? I'm doing this because I want to feel good, I want to feel happy, I want to feel fulfilled, I want to feel energetic. And if I can do that by being as inclusive as possible. So, I'll take it outside of diet for a second and just say, I spent much of my life chasing performance as an endurance athlete. And why did I do that? I mean, you could go deep into my psyche, I could spend 20 years on a therapist couch and maybe give you some ideas. But my life was driven by performance and every day I got up and I managed discomfort. I literally went out and trained in an uncomfortable manner so that one day I could race at a really uncomfortable level. Now think about that for a second. If I'd been playing basketball or baseball or football or hockey or soccer, at least I'd be having some fun.

I'd be on a team and there'd be camaraderie and there'd be the joy of scoring a goal or the heartbreak of missing one. But with endurance competition, all you're doing is managing discomfort. How do I feel? Okay, I feel like I'm going to hit the wall but if I slow it down a little bit, I'll lose, I'll drop off the pace so I can't do that. I got to make myself hurt even more. Well, it wasn't until years after I retired from competition that I understood that and thankfully I lost my mojo, so I have no interest in competing. Even though I could probably go crush it in my age group, I'm turning 70 in a couple of months and I'm pretty sure I could jump in in an endurance contest and do pretty well.

SHAWN STEVENSON: Smoke everybody, let's be honest.

MARK SISSON: I don't want to; it hurts too much. So now my joy is in riding a fat bike and a highly inflated tire bike, big tire bike, on the sand in Miami Beach with friends or going out for

a paddle and hanging out with dolphins or hammerhead sharks or manatees. I love Ultimate Frisbee. It's called Ultimate for a reason. It's one of the greatest games ever invented. And so, my idea of working out has become less about the gym and the reps and the PRs and more about the fun and the play because I did one of the first talks, I ever gave at the Ancestral Health Symposium was on play and how important play was to human development, how we lose it as adults. And I had lost my sense of play.

So now back to the question, which is, with regard to food, I'm inclusive. I try to include as many things as possible that I know aren't going to conflict with my overarching theme about metabolic flexibility. With regard to working out, I try to include many things that are as fun as possible that I can also tell you are still adding to my overall readiness for life. Right? So, when I'm paddling a stand-up paddleboard, I'm working hard. I usually got a speaker on my board and I'm playing Southern rock from the '70s to the Chagrin of all the people living on the canals.

SHAWN STEVENSON: Down on the canals.

MARK SISSON: But I'm working core and upper body. One of the great things about paddling, I wore a heart monitor one time. That's all I needed to realize that I was working my ass off and my heart wasn't working that hard because the muscles were... I was doing like 2,000 reps per side of a full body exercise. So that's fun for me. The cycling, I can get my heart rate way up on a bike now, which is... I had to take 10 years off of that because I got heart issues from all of the years of training I did as an endurance athlete. But I'm back to full capability there. I'm trying to keep up with 20-somethings and 30-somethings on the frisbee pitch when I'm playing Ultimate. It's more and more difficult, I got to tell you. The body does eventually, say, maybe it's inappropriate for you to go play another game of this. I want to play one more game of Ultimate in my 70s. But I'm having fun and I'm trying to be as inclusive as I can. So that I was just in Hawaii for a week with my daughter and grandchildren. My grandchildren are... JJ's three and a half now, she's running all over the place. You got to do animal flow sh*t around her because you got to get up off the ground and get back down on the ground and sit cross-legged and put stickers on your face and all this stuff.

I want to be able to do that and so all of my training is contemplated to improve the quality of life, not just adding 20 pounds to my bench press, not just taking 10 minutes off my marathon time, but life, enjoying life.

SHAWN STEVENSON: Yeah. There's this great quote that says, "We don't stop playing because we get older. We get older because we stop playing."

MARK SISSON: Absolutely.

SHAWN STEVENSON: Another thing that I'm really picking up from you is being able to diversify even with our play. We can find joy in so many new things. There's a season for so much. There's a lot for us to look forward to. You also mentioned something, and I don't want to look past this. We want to also give our bodies the opportunity to use our stored body fat. And so, by our state of constant consumption that we have today and also the programming. When I went to college, they were pushing this into us of eating all these different meals and snacks. And of course, hitting this marker. This was the food pyramid days of 7 to 11 servings of grains. It's just constant consumption. And you mentioned our muscles having the capacity to burn fat. And it made me remember there's a type of fat that I wasn't taught about in school, which is intramuscular fat. It's there. It's used for on-site energy by the muscle.

But if we're not metabolically flexible, that piece and also just even with our body's ability to utilize these different systems, we can have the advent of quote "chubby muscles." You know what I mean? If we think about what that looks like, it's like the marbling of a steak. We've got this meat suit inside under the skin. And we're so intelligently designed, but... I'm so grateful that you brought up this important concept or reality of play. I think this is also another reason why grandkids are so important and why grandparents become so popular with grandkids because there's that element of added play and fun that comes along.

MARK SISSON: Yeah, no, I'm enjoying the process and it gets better every day. And I tell this to young parents too. I'm like being a parent is the greatest thing you can do, I think. And it's trying and it's challenging, but I think it gets better every day, at least for the first 25 years. And in my case, it's gotten better every day ever since. Same with grandchildren. It's just amazing. It's also amazing to be able to hand them back at the end of two hours ago.

SHAWN STEVENSON: Life hack.

MARK SISSON: "It's your nap time, isn't it?" "No, it's my nap time."

SHAWN STEVENSON: So, another big aspect of longevity that you are dedicated to right now, pushing into culture, is foot health. And you shared that foot health is the literal and figural foundation of overall health. Talk about that.

MARK SISSON: Well, as we talked in the first opening segment here, our ability to move, our mobility, our ability to cross the room, cross the state, cross the country, go around the world and experience experiences are what give life a tremendous amount of quality. All of the movement that we do in the gym sort of is based around foot health. All of the things that we do, walking and hiking and playing sports, it's all based around foot health. It's all based around how strong your feet are as a foundation and then how that translate, how the information...

Look, we evolved barefoot and we spent two and a half million years as bipedal barefoot creatures with this organ that senses changes in terrain and immediately feeds information to the brain on how to flex the ankle, how to bend the knee, how to torque the hip, how to absorb shock on a downhill. All of this information, the brain is ready, willing, and able as a processor to distribute throughout the body and then here we are wearing thick shoes that negate all of the sensory information and we wear these thick shoes in the name of, they're more comfortable, they're cushiony, they're whatever. Or we have high arches in our shoes because somebody said a while back, "Well, I guess, we should support the arch because some people have collapsed arches."

Well, most people who have bad arches have arches because they haven't worked those muscles of the feet. So, it's become clear that modern footwear has not served us well. And I've looked at this over the years, I've been a big fan of minimalist footwear for almost 20 years. I was an early adopter of one of the other five-toed shoe companies. It was, I think, a good idea but not great on the execution. I think they looked a little weird. And so, I thought, "Well, how can I come up with a shoe that sort of synthesizes or embraces the best elements of minimalist footwear, including individual toe boxes. What we call the individually articulated toe box, melds that with a good-looking shoe, a comfortable shoe that has an attractive upper, stylish if you will, upper, to the point that people would want to wear these around all day long through whatever activity they're doing throughout the day." So, my company, which is called Peluva, P-E-L-U-V-A, we make shoes that are designed not to run in. We think that if you want to run, go put on your running shoes. If you want to play basketball, put on your basketball shoes. But we make the shoes that you're going to wear throughout the day, doing your errands, dropping the kids off at school, going to the gym, going to yoga, hiking.

If you want to walk six, eight miles on pavement, the shoes are designed to have just enough cushion that you don't get the sort of bruising element of being on hard surfaces all day long. But certainly, enough that you can walk on any uneven surface and feel what's underneath, feel the rock changes or the formation or the roots or the shift in terrain and allow that information to go directly to the brain so that your body moves according to the information it gets from the sensory input from the feet.

SHAWN STEVENSON: Yeah, it's so important. It's literally from, we're talking about the ground up and having a healthy foundation. It's so crazy that we don't think about this. And you know this, there's so many issues related to ankles and knee pain and hip stuff and going up the spine, neck stuff because of the shoes that we're wearing. And so, for example, having that access, there are certain sensory points in the foot. There's an input that it's taking in and sending signals, keeping your body organized. And by the way, everybody listening, it doesn't mean you can't wear... You just even said it, put on your running shoes. If you're going to go out, black dress, the little black dress scenario, you're going to wear some...

MARK SISSON: Girls, don't throw those heels away.

SHAWN STEVENSON: But what are you doing the majority of the time? You wouldn't throw on some of these Air Max, for example, even if you're doing, from my perspective, cross training. These are more just like a fashion thing. You throw these on, maybe you could walk a little bit, but there's something abnormal about it. And as soon as you put them on, you know it. Same thing with high heels. I mean, you can get adapted. But what is that doing to the actual structure of your foot? And so, you got me some of your shoes early, and I had the opportunity to wear them, and they're by far the best as far as having an individual toe box and shoe. I mean, I can't even stress, they're in another league of their own, truly. You really nailed it.

MARK SISSON: Yeah, I appreciate that, thanks. Yeah, and I really want you to put them through the paces too, obviously. Now, the individual toe box thing is interesting because there are companies that make a wide toe box minimalist shoe, right? There are some great companies making. But the difference is, with an individual toe box, the toes can move up and down individually, whereas one full regular wide box shoe, they all have to move together. So now we want to be able to sort of isolate, like you want to be able to push off the big toe, right? And you can't do that in a regular toe box shoe. So, the ability of the toes to go up and down is, I think, integral to what we do. So, we call it toe splay and toe articulation because that's the thing that's been missing for most people. Now, with other minimalist shoes, they'll say, "Well, if they're more than, say, four or five millimeters in stack height from the heel to the surface of the ground, then they're not minimalist anymore." Well, we're saying, "No, ours are 11 millimeters stack height, which is, again, just a little bit more than one centimeter, with zero drop."

So, there's no drop from the heel to the metatarsal or to the toes. And there's no, there's no arch support. Why is there no arch support? Well, because we'd like you to use the small muscles of your feet throughout the day. And again, if you're not running, then just walking in these will help with mobility and will help with strengthening the small muscles of your feet, to the extent that when you do put on your athletic shoes, your feet will thank you for that, for having become a little bit, a little bit stronger as a result.

SHAWN STEVENSON: Yeah, it's pretty remarkable how quickly your feet can come back online. I remember working with a physical therapist friend of mine, shout out to Dan, if you're listening, and he was sharing with me that we should be able to individually just like we can lift our fingers, we can individually lift our toes we put our foot on the ground. And he had me put the phone down on the we were doing a remote session on the ground, and he was surprised that I was able to do it. He was like, "Whoa, that's pretty advanced." It wasn't perfect, by the way, but it can get sleepy, that ability. And when I put your shoes on, I immediately... Not

immediately, but just after walking around in it, I could start to do it in the shoe itself. And then when I took the shoe off, like I was able to just fire those toes one at a time and kind of like my brain is able to talk to my feet better. And it's so crazy because it's just telling me that there's an intelligence that is back online, that's going to support me make sure that I'm safe and functional. When you talked earlier about the phenomenon of falling as we get older and being more, basically more brittle and more susceptible to these kinds of things, a huge part of this is proprioception. Can you talk a little bit about that?

MARK SISSON: Yeah. So, proprioception, again, is that ability that you have to sense changes in ground underneath you and to be able to adapt to changes, not just in surface, but in elevation. So, you think about that person we talked about, the iconic trip in the middle of the night kind of person. Typically, the feet are not very strong. And so, they've been, they've become atrophied to the point, I hate to use the term, but they're like stumps. They're literally like you're activating knees in the calf, but the feet are just like stumps, like walking on. And you want them to be grabbing the ground. You literally want toes to be able to grab the ground. If you've ever surfed your feet can control the surfboard by literally gripping the top of the board. That's why they wax the board sometimes, all the time.

SHAWN STEVENSON: That's why you don't see reindeer surfing. There you go. We got hooves out here. That's what we're doing to ourselves.

MARK SISSON: Yes, yeah, yeah. No, exactly. So, the proprioception is, again, it's this thing that we have this recipe within us to be able to take advantage of this, and we lose it. We just sort of bypass it and think, well, in the interest of... Like a lot of people have bunions. Well, the bunions are a problem from two restrictive shoes, from shoes that are being... Feet that are being... Toes that are being scrunched together. Now you get bunions, and then you think, "Well, now I have to have comfortable shoes because my bunions hurt, so I'm going to get big, thick, wide toe box cushiony shoes," and all that does is sort of exacerbate the issue. So, I don't want to get too medical here on what we're doing. We wanted a shoe that was comfortable, functional, and stylish, and that's what we've created. So, I think we're already having a lot of amazing feedback from people who couldn't even put them on the first time. Like, "How do I get my toes into each individual toe box?" By the fourth or fifth time, it's like, "They slide right in."

SHAWN STEVENSON: Yeah, yeah. Can you share their website?

MARK SISSON: Yeah. It's peluva.com. P-E-L-U-V-A dot C-O-M, dot com. And I'm the founder along with my son, Kyle. We're having a blast doing this. And my whole thing with Primal Kitchen Foods was to change the way the world eats. We want the world to reimagine the way the world walks.

SHAWN STEVENSON: I love it. I love it. So earlier you said something that I want to circle back to. You said the C word. You said calories. All right. You said calories and you also mentioned protein in that context. Maybe being negligible or like the way that we see protein and just fitting into that calorie matrix might be inappropriate.

MARK SISSON: Yes.

SHAWN STEVENSON: I want to talk more about that because we even know, for example, one of the things I was taught in this expensive education that I got that was almost worthless was this thermogenic effect of protein. But we really, it just stopped there. It's just like it has this capacity but I don't really understand what that means.

MARK SISSON: Well, the thermogenic effect of protein might even be an anti-calorie. So, if you say, "Well, protein has four calories per gram," that's in a combustion chamber. That's, if you burn it. Well, I don't want to combust protein. I'm already very good at burning fat. I'm really good at burning glycogen and glucose. I'm very adept at burning ketones. Why would I want to burn this substrate that isn't really an energy substrate except in emergency situations. So, one of the issues I've always had with the old standard American diet and the old mantra that eat six small meals a day. So don't ever go two or three hours without eating or you'll cannibalize your muscle tissue. Do you remember that?

SHAWN STEVENSON: Yeah, of course, of course.

MARK SISSON: From the bodybuilding days. And so, people would carry Tupperware around with them with 20 grams of protein and 20 grams of carbs mixed together. And so, it was literally a chicken breast, skinless, boneless chicken breast with white rice. And it's sort of in the name of not getting into this cannibalization. Well, what does that mean? Well, if you haven't become good at burning fat, if you haven't become adept at utilizing ketones, then your body only knows carbs. It only knows glucose or glycogen as a fuel. And so, in any sort of emergency situation, the brain is going to go, "Where is my glucose?" If you skip a meal or if you wake up the next morning from a long sleep and you've got a flight to catch, and you don't. The brain goes, "Where's my glucose? I don't know how to burn ketones well. I haven't become used to it. I'm not metabolically flexible, so I can't really burn fat. So where am I going to get my glucose?" And the brain gets freaky... It doesn't get freaky, that's the difference. But it freaks out, and it will send a signal to the adrenals and the adrenals secrete cortisol and the cortisol then basically goes and strips amino acids off of muscle tissue. It literally cannibalizes muscle tissue to take a few amino acids that it would send to the liver to make glucose to make the brain happy.

So, in the old paradigm of being not fat adaptive, of not being metabolically flexible, the old paradigm, yes, if you went hours without eating, you literally could cannibalize your muscle tissue. So, in that context, muscle tissue has a caloric value. But we don't want to go there. We want to be metabolically flexible, we want to be metabolically efficient, and we want the protein that we take in to not be combusted, if we can help it, and to be utilized for these structural proteins. So that's the essence of the protein discussion. Now, the thermogenic effect of protein, if you eat a lot of protein, more than your body needs, the body has a way of increasing thermogenesis, has a way of increasing the metabolism such that you will burn off excess calories. And if you're really...

SHAWN STEVENSON: Some call it the meat sweats.

MARK SISSON: Yeah, and if you're really good at this you don't gain body fat and you're one of those people who can brag about eating 4,000 or 5,000 calories a day and not looking any different. And to that, I'm going to say, okay, you can do that, but is that a good thing? The fact that you can get away with it doesn't mean it's good for you. And most people can't get away with that. So, most people who overeat will put on body fat and it's a pound, two pounds a year, three pounds a year, doesn't sound like much at a time, but over decades, it becomes 50 pounds. So, the thermogenic effect of protein, sometimes it is, if you consume too much protein, the body wants to deaminate and piss out the amino acids, that's fine, but that's a process, it takes energy. It may want to, it will want to convert some of the amino acids into glucose, that's the gluconeogenesis aspect of excess protein intake. So, what happens is we find this sort of sweet spot where anything less than 80 grams of protein a day on a regular basis probably doesn't serve you that well, but anything more than 130 or 140 grams a day probably also doesn't serve you that well. Now, it's not, again, it's not going to kill you, it's not going to harm you, but it just isn't necessary.

So the fact that you can get away with eating 200 grams of protein a day, like Sean Baker or some of these guys, great, go for it, but he's a big guy and he's doing a lot of work, but I find that there's just, for most people, for 90% of people, there's a narrow range of protein intake that from 80 to 120 grams a day, that you would thrive in on an ongoing basis. Now, the other thing about protein that's really interesting, I think, is it doesn't, you don't need to think in terms of meal to meal, like 30 grams of this meal, 30 grams of that meal, 40 grams of that meal, let's see, that's 100 grams, Mark, is that enough? But protein is more like, because there's this reservoir of amino acids in the body, the protein intake is more based on a four-day rolling average, right? You don't need to go meal to meal, you don't even need to go day to day, but if every four days or every week, you can look back and say, "Well, I averaged 100 grams a day for that, one day I had 200, oh my goodness, look at me, and another day I only had 30 'cause I was trying to eat light," the body adapts to that, it acclimates to that, it has resources in which

to allocate and preserve amino acid, an amino acid pool within the body that it can then utilize as needed without you having to think consciously.

"The body can't process more than 30 grams of protein in any one meal, does that mean if I have 60, I'm... " No, again, we're getting too granular, we're overthinking this, protein is just... Like I eat fractally now. So, I eat, some days I eat one meal a day, some days I eat two meals a day, some days I don't eat, sometimes when I travel to Europe, I have breakfast, it's like, it feels like the thing to do, plus it's included in the price of the room, so why am I... Right? [chuckle] And the beauty of that is, I'm not tethered to any particular mealtime or any particular structured eating strategy, because having developed metabolic flexibility by being predominantly getting rid of industrial seed oils, corn oil, soybean oil, safflower, sunflower, canola, by cutting out sugars and processed carbs. My carb intake if I try, doesn't exceed 150 grams, maybe 200 grams a day, right? So, because I'm metabolically flexible, I can go into these days, rarely weeks, 'cause it just gets uncomfortable, but days at a time where I'm off the program, I'm off the reservation, I'm like, "But I'm in Europe and I'm having great food and I might even have some dessert, not a lot, but some."

And that's me wanting to enjoy my life and that's the hedonistic part of me saying, "I worked hard to develop this metabolic flexibility, why would I be so restrictive from meal to meal that I don't take advantage of the exact thing that metabolic flexibility affords me, which is to be able to go off track once in a while."

SHAWN STEVENSON: It just makes sense. Why do you do that? You just make so much sense, Mark. All right, so we've covered a lot of ground here. We've talked about, in the spirit of longevity, nutrition with an emphasis being protein, we've talked about muscle, we've talked about play, we've talked about the importance of caring for our feet. Is there anything else that, just within the last couple of years, you've really just kind of seen stand out as like one of the ingredients for our longevity?

MARK SISSON: I'll just reiterate that enjoying every moment is ultimately why we're here. I mean, if you think about, why would I want to live a long life if I look back on it and said, "Well, I wished I'd done this in my 20s when I had the opportunity, but I was too busy doing other stuff." I think it's Martha Stewart who said this, but other people have said it, life is what happens when you're making plans for the future. And so don't let life pass you by. And trying to extract the greatest amount of enjoyment out of each moment has been something that I've had to learn for myself, because I grew up in a Puritan work ethic fishing village in Maine. Life was tough and you had to grind it out and you had to work for everything. And so that was pretty much my mentality for much of my life. And there's a utility in that philosophy, but on the other hand, why are we here? We're here for a finite amount of time. I look at people in the biohacking movement and say, I want to live to 160. I don't want to live to, I don't need to

live to 160. I've had a great time on this earth. I'm not saying I'm ready to go, but at some point, I'm like, the finiteness of life is what gives it meaning. And so, recognizing that life is finite, looking back and saying, "Okay, I extracted every possible moment I could, that was a win. My life was a win."

SHAWN STEVENSON: I love it, I love it. Mark, this is so fascinating. And if I could, since I have you here, I want to ask you if you can give us a template for exercise, because obviously there's a lot of different inputs. You put an emphasis on play, but with play alone or with somebody's like diehard, like yoga is their jam, right? And they're just like, "This is how I'm getting my fitness." We know that we need a variety of these different inputs, just like with everything else. So, can you give us a framework of what an ideal week would look like as far as our exercise and training?

MARK SISSON: Yeah, so I wrote, 20 years ago, I described the primal blueprint and the 10 primal blueprint laws. And one of the exercise hierarchy, was move around a lot at a low level of activity. What that means is walk, walk, or hike or ride a bike or, but walking counts just as much as anything else. And walking is not about burning calories. It's about the movement. It's about using your feet to cover different planes and ranges of motion and terrains and to let the feet inform the rest of the body, how to, again, how to flex the ankle, how to bend the knee, how to torque the hip, how to adjust for the eccentric motion of breaking. So, move around a lot at a low level of activity. What does that look like? It looks like five hours a week, right? It may sound like a lot to some people. I can't run five hours a week. Don't walk a half hour someday, an hour another day, ride a bike a little bit, five hours, you can get that in. Go to the gym twice a week. Now when I say go to the gym, if your jam is body weight exercises at the local park where they have a parkour or they have a swing set, set up or whatever but go to the gym twice a week and what we call lift heavy things. Lift heavy things twice a week and not two days in a row 'cause you want to get time in between to build the muscle, recover, get stronger as a result of having done that.

So, a couple of days in between. So at least twice a week, some people are going to go to the gym four times a week. Okay, if you can handle that, fine. But my minimum strategy, again, move around a lot at a low level of activity, lift heavy things twice a week and sprint once a week. Why sprint? If we're calling upon our ancestral recipe, our ancestors had to either run for their lives once in a while, either to get away from something that was going to kill them or to run towards something that they needed to eat and get the heart rate up to a max level. And again, not a lot. I mean, I'm going to say four to eight sets of 30 seconds is plenty. And people will find that it's one of the most productive workouts they'll do. And you don't have to give minimal rest in between. You could rest a minute, two minutes, three minutes in between, but once a week, sprint. It's so funny 'cause again, I saw something, Huberman Lab did this the other day. He made a big deal about this new revelation that we have to do something that

elevates our heart once a week for 60 seconds. I'm like, "Dude, I've been talking about that for 20 years."

And I'm not the only one. Humanity's been talking about that for 2 million years. So, but we talked early on about where we headed as a society and AI and virtual worlds and all this stuff. And if we just go back and look at what nature, how we evolved through this crucible of scarcity and harsh climate, our genes still expect that of us in order to thrive, in order to be the best that we can be. So, if you can sprint once a week, just like your ancestors had to sprint, if you can go to the gym twice a week and lift heavy things or go to the park and do your body weight exercise, whatever. And if you can move around as much as you can throughout the day at a low level of activity without ever paying attention to the amount of calories you burned, or the steps, please, steps, just the time. You are 85% of your way to being as fit as you could be.

SHAWN STEVENSON: Love it, love it. Simple recipe and packed with goodness. Now, what about with the sprinting? We're talking about getting outside, maybe sprinting on a football field or a track, or what about a cycle or something if somebody's...

MARK SISSON: So, sprinting, I use the term generically and broadly, sprinting for most people, I think, on a track. But sprinting for me would be the assault bike at the gym, or the VersaClimber at the gym, or even on the treadmill, walking really hard up a 15-degree incline, or the elliptical, or the swimming pool, or there's so many ways that... The idea isn't to sprint like Usain Bolt, the idea is to do whatever it is, using as many body parts as possible to get the heart rate up to the highest you can get it for 20, 30, 40 seconds. Sometimes, I mean, I do rope pulls now. I don't know if you've ever seen the rope pull machine, but we do 60 seconds of rope pull. It's the highest I've ever gotten my heart rate up. It's crazy.

SHAWN STEVENSON: Holy moly. I never thought to do sprint, like to sprint for like that.

MARK SISSON: Oh, yeah, yeah. No, for sure, for sure. No, you put it on level one, like the least amount of resistance and you pull for time and for, I mean, for distance for a minute. Oh, it's incredible. So, all these methods of sprinting are a way of raising your heart rate up to... And again, if you have, if you're coming from an untrained situation, if you have bad knees or bad heart, look, I'm not telling you to do that. You got to train into that. But if you're relatively fit and you want to get fitter, there's nothing like sprints that'll cut you up. And that cut you up, meaning burn body fat.

SHAWN STEVENSON: That's right, that's right. Mark, you remind me of this statement that success leaves clues. And so, thank you so much for all that you've done these past years and just really creating a model for us and speaking about longevity, like you have that thing. And

so, I'm really excited anytime I get a chance to talk to you, could you let people know where to connect with you and also mention your new shoe company again?

MARK SISSON: Yep, so my Instagram is [marksissonprimal](#). I haven't been good about posting shots recently, but I will, people seem to like my shirtless shots for the 70-year-old guy on [marksissonprimal](#) on Instagram. Mark's Daily Apple is a blog, been writing since 2006 daily. That's where a lot of the good... Really good, researched information is. And the footwear company is called Peluva, P-E-L-U-V-A, [peluva.com](#).

SHAWN STEVENSON: Boom, Mark Sisson, appreciate you so much.

MARK SISSON: Thanks, Shawn.

SHAWN STEVENSON: Mark Sisson, everybody. Thank you so much for tuning into the show today. I hope you got a lot of value out of this. When it comes to conversations about longevity, the very best resource is listening and learning from people who've actually achieved longevity. And I believe that we can have a high functioning, healthy, abundant, joyful life as we move on in age, but we have to make a shift in our culture. Our culture is constantly inundating us with ideas about aging and being this very, very terrible scenario. It's this kind of disease for us to overcome versus all of the incredible insight and wisdom that comes with the process of aging. And also, being able to extract even more juice, extract even more joy from this amazing life. We have a template of lifespan here for a reason. There are seasons for everything, but to get the most from it, to truly enjoy it, to live it healthfully, and to enjoy these bodies and this life that we've been gifted, wouldn't it be a great idea to invest in our education around how to be healthy and functional moving forward?

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