

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

**EPISODE 494**

## **Activate The Youth Within Your Cells Through The Power Of Autophagy**

**With Guest Naomi Whittel**

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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. On this episode we're diving into a subject matter that's driven behind a Nobel prize-winning discovery to cellular mechanism that's associated with longevity, but also the counter side when it's not engaging, when it's not allowed to do its normal process, it's associated with accelerated aging, with degradation and with disease. So this episode is going to blow your mind, we're talking with a real life Indiana Jones, a real life, Tomb Raider, Lara Croft, somebody who's traveled all across the world to study and uncover some of the most powerful foods and nutrients and to bring forth some of the most profound and important signs of our lifetime, and it really is that important, really tuning in, being able to understand how our amazing bodies, these incredible inter-workings, these cellular communications and relationships that are taking place within all the cells in our body, because the reality is, our bodies are really a community of cells that are all working together... Supposed to be working together for our collective good, but sometimes people in communities, they can get a little bit unruly.

It can be a holiday coming up and maybe some of the cells drink a little bit too much, and you got to bring in some outside assistance to break up scuffles, you never really know what can take place unless you are creating an environment where health and cooperation and health is really the dominant force, because there's always going to be some rogue things that take place. If you think about a cancer cell and its behavior, we go through this process as we live life of replication, certain cells die off and we have cell replication, we have new cells that are born all the time, and each cell has a certain amount of times that it can print out new copies, these replications, but at some point, we have that programmed cell death, senescence, apoptosis, where that cell is supposed to stop replicating and allow for a new growth to take place. Cancer cells, they don't abide by those rules.

They're just like, "Hey, I'm the Vince Vaughn of this situation, I'm wedding crashing, I don't care what happens." And so, they do their own thing. But there are things that are going on underneath the surface because in our conventional system of medicine unfortunately, there's not a lot of education around how this process happens. What creates a Vince Vaughn cell, what creates a Owen Wilson... Shout out to Vince Vaughn and Owen Wilson by the way, they might be listening. No disrespect, I'm not calling you a cancer, that's not my point, but just folks that are in that cellular community, going off and doing things that a rogue and potentially disruptive, which again, if you've seen the movie, a lot of disruption took place, happy ending, it's a story of all movies. So here's the thing, in our current system, as I mentioned, there's not a lot of education about how does cancer occur, what is the underlying mechanism, and we know what this really is, it's just basic principles of physics and principles

within that of causality, cause and effect, nothing is just happening in our world, but that's kind of the idea that most folks, unfortunately, they're indoctrinated with that, the different conditions that we struggle with, all the different problems in our world that they just happen. And nothing can be further from the truth. There's always a causality, there's always a causative factor behind those things. Now we can't explain everything, but that doesn't mean that there isn't a causative factor behind it. If we're talking about cancer and that relationship, we already know the plethora of carcinogens, these cancer-causing agents that influence our cells, in many ways, very powerfully to have that abnormal behavior. And so, once we get in association with what are these things creating, the conditions where cancer can thrive. Let's remove those things, let's move away from those things. What are the things that create conditions where our cells replicate healthily, and they have that normal natural apoptosis process and they hit that Hayflick limit and then they move on, and then we have new cells that are able to be born, what are the things that create those conditions? So again, there's an underlying mechanism, there's a process, powerful process that we're going to talk about today, really, really excited about that, and with one of the leading experts in this subject matter is because she's actually taken action to put herself in position to go to the universities, to the labs, to the farms, and to study these things and to meet with the experts and to bring this incredible information back for all of us, so again, very, very excited about this.

And during the episode, you're actually going to hear her mention the amazing tea that I gave her, when she got here, she's European. So, I knew... Oh, she's going to say yes to the tea offer, so I gave her an incredible tea, but something that again, unfortunately, a lot of folks still don't know about, but you're about to learn about it right now, according to a study published in the Journal, Phytonutrient research, the renowned fermented tea, Pu'er... That's the name, Pu'er is one of the rare nutrient sources that has a direct significant influence on the enzyme that literally unlocks our fat cells and allows fat to exit from our cells to be oxidized, which is known as hormone-sensitive lipase or HSL, but this is one of the rare nutrients sources, one of the rare teas, one of the rare foods ever discovered that directly impacts and activates hormone-sensitive lipase to do its job of going and opening up those fat cells so that fat can be mobilized and used for fuel. Now, Pu'er is also incredible in that it has a clinically proven ability to support fat loss while protecting our muscle mass at the same time, and this is according to a recent study featured in Clinical Interventions in Aging, alright?

So, this is a journal that's focused on anti-aging compounds and nutraceuticals and pharmaceuticals, and this tea that's been utilized for centuries, has some really remarkable effects that you just simply don't find anywhere else, so that's the tea that I gave her to enjoy during the show. So, it had a purpose, it's tea with a purpose. Purpose tea, I did a purpose tea. So, I'm going to share one more study with you, and this was published in the peer-reviewed journal, Nature Communications, uncovered that there's a unique compound found in Pu'er called theabrownin that has some remarkable effects on our microbiome. The researchers

found that theabrownin positively alters our gut microbiome and has an impact on directly reducing liver fat, alright? So, lipogenesis within the liver. I can go on and on. It's absolutely incredible, but the key is making sure that you're getting... You're going to learn more about that in this episode from sources that do things the right way.

Because the supply chain of getting some of these nutrients, and especially these highly coveted teas, we've got to make sure that it's coming from places that have integrity, that are doing things the right way, from farm to your cup. And the only Pu-erh that I drink is triple toxin screened for one of the highest levels of purity. It's tested for pesticides, heavy metals, and toxic mold that is actually common in teas. And also, it's a patented cold extraction technology that extracts the bioactive compounds in the teas at cold to low temperatures to actually extract and maintain these nutrient compounds. If we're talking about theabrownin, for example, to make sure that you're actually getting the things that you're looking for, and I'm talking about the teas from none other than Pique Tea, that's P-I-Q-U-E-T-E-A.com/model. And if you go to piquetea.com/model, you're also going to get an exclusive 10% discount off of all their incredible teas. I'm a huge fan of their Matcha. I love their ginger tea as well. And again, we were sipping on some Pu-erh today with my special guest, and she was just really blown away by it, and she really is an adamant, adamant seeker of quality. And so, she really loves Pique as well. So again, go to piquetea.com/model, that's P-I-Q-U-E-T-E-A.com/model, and now let's get to the Apple Podcast review of the week.

**ITUNES REVIEW:** Another five-star review titled “Amazeballs” by NJTRT. “Hooked on Shawn, my go-to reset podcast to listen to relevant cutting edge trustworthy information that speaks to my soul and inner child. Haha. Plus, he simplifies stuff without dumbing it down, working my hippocampus while helping to release those much needed endorphins, knowing I have access to amazing resources, thanks to his passion to share Model Health for all. Much gratitude.”

**SHAWN STEVENSON:** I love that so much. Thank you, thank you, thank you. That's such a great review. Thank you so much for leaving that review over on Apple Podcast. And if you have to do so, please pop over to Apple Podcast and leave a review for The Model Health Show. I appreciate it so much. On that note let's get to our special guest and topic of the day. For over 20 years, Naomi Whittel has been exploring the world and hacking the supply chain to discover the most powerful, potent, and efficacious ingredients from around the world, named by Prevention as a leading innovator in the natural products industry, she's a fierce advocate for empowering people to take control of their health and the health of their families. Naomi is also the founder of an award-winning nutrition company, she's also served as the CEO of Twinlab, and she's the author of Glow15, The New York Times best-selling book on the Nobel Prize winning signs that you're going to learn about today. So, let's jump into this conversation

with the one and only Naomi Whittel. Naomi, thank you so much for joining us on the show today.

**NAOMI WHITTEL:** Shawn, I'm so thrilled to be here, and it's a great thing to be able to be in your energy and your presence. Thank you.

**SHAWN STEVENSON:** Oh, the pleasure is all mine. So, speaking of pleasure, or maybe not so pleasure, in your book, which is phenomenal, *Glow15*, and you've got another new book as well, where you talked about your first time, and I was like, "Where is this going?" You know, when we brought it up, so can you talk a little bit about that, because I know that really millions, hundreds of millions of women experience this experience. So, can you talk about that? Talk about your first time.

**NAOMI WHITTEL:** I'm going to tell you a little bit about my first time, it's a little challenging, but when I finally sort of recognized that I was getting ready for work one morning and my kids were running around and trying to get them ready... I have four of them now, that time I had two. And I have always believed in having very little put on my body. I don't like to wear too much make-up, I don't like to really wear make-up, I don't like to put too many products in my body, because we absorb so much of it. And I'm going to talk to you about my health issues, which has led me to that. So, I've always felt like, make-up and skin care is super dangerous and extraordinarily toxic, and so many of the ailments that we have as women are because of what we're covering ourselves up with. So anyway, I was getting ready and I was putting on probably like a little bit of eyeliner or something, just trying to get ready for the day, and I noticed that the makeup that I was using really wasn't working, and what I saw was that my skin was starting to droop, the texture was changing, and it was like one day to the next, these fine lines and wrinkles popped up, and I was in my mid-30s.

So, I've been studying health and wellness and how to be biologically optimized as a woman forever. And so, I thought to myself, "How is it from one day to the next, it seems like I've just aged overnight. What happened biologically?" And what I did is, I called up my mother, and I'm like, "Mother, send me a picture of you at 36 years old. I want to see what you looked like." So, I took her picture, and I took mine, and I had essentially prematurely aged compared to her.

And then I started to really try to figure out like, "What's going on here?" And so that's how it all began.

**SHAWN STEVENSON:** Yeah, so that's your first time noticing that you were aging.

**NAOMI WHITTEL:** But not just aging, 'cause we're all going to age, but aging faster than I should. So, a woman, according to all the research, top dermatologists, a woman basically starts to really visibly show age around 37 years old. So, it's not that I'm obsessed with what's going on in the outside, 'cause I'm really not, but recognizing that this is a reflection of what's on the inside. I was born with autoimmune disorders. I was covered in eczema as a child and into my 20s, which really has led me on my journey, but understanding that that inflammatory process that's going on, on the inside, despite the fact that my skin would bleed, and it would pus and it was... You would look at my hands, you would think, as a 9-year-old I had... I was an 80-year-old because my hands were so, so broken down, and it was all about what was going on, on the inside. And so, I've always used the outermost part of my body, our largest organ, as a reflection. Okay, what's going on? Like in Chinese medicine, they'll smell your back, so what odors are coming out of our body? What does our skin look like? What is the coloring of our skin? So, there's so many ways to understand what's going on, on the inside, but I was noticing, "Oh my God, I am aging way more quickly than I should be." And I'm looking at my mother and she looks like... Her picture in her 30s was like 10 years younger than mine.

**SHAWN STEVENSON:** Wow, and a lot has changed since she was that age versus the environment that you live in today. So, we're going to get into that, but I love this so much because you mentioned this, we all age. It's what you sign up for when you get here, whether you realize it or not. But the thing that we are aware of today is that we can have a graceful experience, and there are so many things that can accelerate that aging process, that can burn through our little telomeres that everybody has started to understand about. But I think also your experience too, living as a little kid with this autoimmune condition and having eczema so badly, I love that you brought up because some of the biggest superheroes, which again, I told you just before we got started, you're such a superhero.

**NAOMI WHITTEL:** Aw, thank you, you.

**SHAWN STEVENSON:** Are really emerging from their own troubles and challenges, and there are super villains that you are going up against trying to figure stuff out, and then you end up helping so many others. So, this leads into the conversation about what are the mechanisms that are helping to keep us younger. To keep us younger longer, should I say. And your book is one of the... Really the first book to take a deep dive on talking about this subject matter. I mentioned it in my book, but you go in multiple layers in talking about autophagy. So, can you talk about what it is and the implications that it has for us as related to aging?

**NAOMI WHITTEL:** Totally. Autophagy means “auto” self, “phagy” to eat. It's literally like self-eating in Greek, that's the meaning of the word. And I intuitively, as a child, always understood, just like the waves come in and out in the ocean, I always had this understanding, and I think it was because of my eczema that we were either at a cellular level. This was way before I took a cell biology class like I knew nothing. I didn't probably even know what cells were, but I knew. Let's say, I learned about them in seventh grade, and so I understood that our cells were either building or breaking down. Most basic child understanding and it wasn't until I was in my... Gosh, it must have been like my early 30s, and I was on one of these trips, which is what I live for, I want to always know where things come from, and I'll explain to you why a bit later, but I was in Calabria, Italy. And I was there because there's this amazing fruit called citrus bergamot, and it only grows like in a 20-mile region where the soil is just perfect for this particular fruit. And I went over there because the researchers around this fruit are in that region. And so, there was this woman Dr. Elizabeth Janda, and she had me in her laboratory, and then I was in the vineyards or in the orchards where the farmers were growing it, and I met with a fourth-generation farmer, Hugo, and really understood how they harvest, how they process, and how it becomes a nutritional supplement. And I was fascinated because citrus bergamot helps to balance our cholesterol profiles, and it is like this powerful antioxidant flavonoid. And the research was going on and on and on, so I was super excited and obsessively interested in learning about it. And I was in Dr. Janda's office for like, I don't know, a day or so, and we were drinking this citrus bergamot tea all day. And at the end of the day, I was like, "Oh my gosh, it's so good. I want more, but why are you drinking it? What specifically are you getting from it?" And she said, "Oh, Naomi, it activates my autophagy." I couldn't even say it. I'm like, "What do you mean?" And she's like, "It activates the youth inside of my cells." And so, at that moment in

Calabria, I'm like, "Oh, my..." So I flew home, back here to the US. I sat down with my team. I had built a nutritional supplement company called Reserveage.

And it's all based on ingredients from around the world that have really important science and I could understand and go to their source. So, I came back to the team, I'm like, "You guys, I want to know everything about this thing called autophagy," and it was in 2000 and, I guess, it was maybe early 2013 or something... 2013, '14. Yeah, 2014, 'cause it took four years before I wrote... Before the book came out, and I looked for the experts in autophagy all over the world, for the skin autophagy experts.

I looked for the exercise autophagy experts. I wanted to know who are these people. And I have my offices in Gainesville, Florida, which is where the University of Florida is, and our space is in the innovation hub, so I have access to crazy amounts of brainiacs, which I love, 'cause we're basically right on campus, and there was a researcher at UF, William Don, who I've interviewed a bunch of times, and he sort of became my main conduit. And he then started to bring me into research by a researcher in Tokyo, Yoshinori Ohsumi, who was sort of like the autophagy guru. And he's done all of his work, his entire career, on autophagy but in yeast cells. So, I started thinking about all of these experts, how can I activate autophagy in my own body? This is a word I don't even know. No doctors I would talk to knew about it. It was only deep within the research within universities, and it was still coming up within the university environment. So, I started writing this plan and this book for myself, finding all the things that would activate it in my own body, and that's how I decided to write a book on it.

I'm not a researcher, I'm not a scientist. I really was as like a wellness explorer trying to get to these answers. My dad's a chemist, everybody in my fam... My grandfather's a quantum physicist. I grew up with him and learning a lot... Everybody's scientists, but really, I don't have that training. So, I wrote the book, I got the proposal out 2016, and three weeks before the proposal came out, we did... Well, we did a clinical study with women using all of these methods to activate autophagy at Jacksonville University, and we got amazing results. So, we put that all in the proposal, and three weeks before I went out with the proposal, Yoshinori Ohsumi, in Tokyo, won the Nobel Prize...



**SHAWN STEVENSON:** Nobel Prize.

**NAOMI WHITTEL:** For autophagy.

**SHAWN STEVENSON:** Incredible.

**NAOMI WHITTEL:** It's like, "What?"

**SHAWN STEVENSON:** The timing.

**NAOMI WHITTEL:** Yeah.

**SHAWN STEVENSON:** Because when awards like that are given, it raises up the awareness of the subject and then more people jump into research on it.

**NAOMI WHITTEL:** It's so true. I had the profound joy and pleasure, probably one of the best days of my whole life, of interviewing him face-to-face. We were like this. And he didn't do any visual, video interviews after he won the Nobel Prize, but he allowed me to interview him, I went to Tokyo. And he told me when he was young, his mother had tuberculosis. 'Cause I was trying to get into the head of, what is a Nobel Prize winner doing? How does that mindset build to transforming hundreds of millions of people's, billions of people's lives really, truly? How does that work? And his mother had TB, and he was malnourished as a child, and his dream was to be a scientist, and Yoshinori ended up looking at this field of chemistry, which was what was happening in those years, and then he said, "You know what, I'm going to be a contrarian. I'm going to follow my own path and I'm going to get into cell biology." And so, he went down this totally different path, there were no studies done on autophagy, and he was at the very forefront of it. And he showed me the graph of how many studies have been done on autophagy once the Nobel Prize had been won, it's a global transformation. And it was all because he was like, "You know what, I'm going to take this other path. It's kind of crazy. It's not right, but I have to take the risk."

**SHAWN STEVENSON:** This is a good place to talk about what is autophagy doing in our bodies. What is the purpose of it? What's the role, what is the outcome? Let's talk about that.

**NAOMI WHITTEL:** Yeah. If I were to give you an analogy, I'm in this amazing space of yours and I see on the garbage cans, "Recycling only, please." So, let's imagine that we're in the kitchen and you make an amazing meal and I'm your guest. I'm super excited 'cause I'm enjoying my tea, and I can only imagine what else you can do in the kitchen.

**SHAWN STEVENSON:** Yeah, I can throw down. Let's just be honest.

**NAOMI WHITTEL:** Yeah, I know, I can tell. I got it. I'm so. I can feel it. I love it. So, let's say you make this amazing meal and we're in the kitchen, and after you make this beautiful production, I'm responsible for recycling whatever is. Maybe we're putting this in the compost, we're putting this in the recycling bin, this goes in the garbage. So, we're cleaning up the counters and we do this. And let's say it's a month later and or a week later, and the recycling bin has filled up and the garbage can has filled up and there's a couple of things on the counter, but we're going to take it out to the street, and we'll dispose of it, and we'll bring the compost into the garden, but over time, this process of cleaning up slows down. So, it's the same thing that happens within a cell. So, in the cell, autophagy, I like to almost think of it as like a little doctor that says, "Okay, recycle these organelles, or this goes, this cell actually has to die, or we're going to throw this garbage that accumulates all of the toxicity, that accumulates in the cell, we're going to throw this out." But over time, due to pollution and so much environmental toxins and age. Telomeres, all of the organelles are not working as well, they're slowing down. Over time, what happens is autophagy can't work as well, and it's not as strong and it's not as efficient. And so that is the massive contributor to the way in which we age. So, it's a natural detox, cleaning, recycling, garbage in, garbage out process.

**SHAWN STEVENSON:** And you can just imagine if we weren't effectively taking the garbage out, what'll start to happen.

**NAOMI WHITTEL:** Right.

**SHAWN STEVENSON:** The nastiness that can build up and just the inefficiency, because that's going to bleed over into the growth stuff that we want to do, of like to make the next meal. And then there's all this garbage in the way.

**NAOMI WHITTEL:** That's right.

**SHAWN STEVENSON:** Such a good analogy.

**NAOMI WHITTEL:** Yeah, it was an analogy, not that I came up with, but one of the brilliant research scientists that I was bugging for tens of hours, "Let's talk about autophagy some more."

**SHAWN STEVENSON:** I love it. But you pulled me into your analogy, and I appreciate that.

**NAOMI WHITTEL:** Yeah.

**SHAWN STEVENSON:** So, understanding how important this is, so we've got so many different aspects of autophagy. We've got autophagy related to the health of our skin, our brain... Basically, every cell in our bodies. And you've also identified some specific nutrients, some specific foods, specific exercise implements that we have some data now on it supporting this function that our body is so desperately wanting to do to keep us healthy and live a longer... Not just live longer but live healthier longer. So let's talk about some of that stuff. You mentioned this citrus bergamot tea, and that was combined with Earl Grey as well for a tea. Can you talk about that?

**NAOMI WHITTEL:** I just sort of added different nutrients. So, it started with thinking about my skin knowing that if my skin is prematurely aging, then there are other premature aging processes that are going on in my body, and I want to be optimal, I want to live, I want to seize every single day, I want to live the most I can with every moment possible. And so, I thought for myself, and this was very personal desire to just optimize my biology in the best possible way, and so how can I do it? And I looked at... Yeah, with all of these brilliant experts, I looked at all these different areas. So this gentleman by the name of Richard Wang, he's a

dermatologist autophagy expert, I went to him and I'm like, "Okay, what do I need to put on my skin?" And literally, we went through hundreds of ingredients.

And then I worked with William Don at UF and we talked about a lot of what foods we can use that can activate our autophagy. And I ended up coming up with this tea, which has Earl Grey, it has citrus bergamot, it has green, it has the EGCGs, and it has a variety of different ingredients and you can easily make it. We just called it our own autophagy-tea. And you can use that citrus bergamot oil, even the essential oil, and I have the recipe in my book, but it activates the youth, and it's like a great way in the morning to just start that process. We activate the most autophagy while we're sleeping. So that's why your book, *Sleep Smarter*, is so phenomenal. If we can get more juice out of when we're sleeping and really make it powerful, we're activating the most amount of autophagy.

**SHAWN STEVENSON:** Yeah. I love this so much. So you mentioned EGCG, so that's a compound coming from green tea, right?

**NAOMI WHITTEL:** That is right.

**SHAWN STEVENSON:** Can you talk about that?

**NAOMI WHITTEL:** Yeah. I first fell in love with EGCGs when I did my first travel, and I talked to you for a minute about it. But I was born in Switzerland, I was born on a biodynamic farm, so the most healthy sort of environment you can get. My mother's an artist and my dad's a chemist, and they were both just so passionate about raising me in the healthiest way that they could, despite all my autoimmune stuff, which was very ironic. But I knew... I never had a western doctor, I always... My parents always used homeopathy. We were naturalists and always had been. So when I was in my likely, I would say I was in my mid-30s, I went to Okinawa because Dr. Wilcox, these two twins, which I had mentioned to you, who both studied at Harvard, had discovered... The book was called *The Okinawan Diet*, and they had discovered a lot of the answers as to why the Okinawans had the largest group of centenarians in their culture, why this island was filled with them. So I wanted to go and see it for myself. So I set up

a lunch meeting with Dr. Wilcox, one of the brothers that lived in Okinawa, and I went and visited him at the Okinawan University, and we went and had lunch.

And in Okinawa, the way it works is I could set up a meeting with him 'cause he was a Westerner, but I couldn't write to somebody else at the university and say, "Hi, I'm Naomi Whittel. I'm in the US, I'd like to have a sit down with you." It doesn't work that way. You have to be introduced, like Shawn, you would have to introduce me to your friend in order for me to meet with them. There was this all this interesting protocol. So long story long, I ended up having the opportunity to meet with different farmers, I met with the mayor, I went to his home and we drank these amazing EGCG-filled green teas, and I learned about the way the Okinawans approach green tea. And they might drink four, five, six, seven cups a day, but because it has the EGCG, that powerful compound with the theobromine and the balancing of the caffeine... They are not jittery in the day, and they have all of that benefit, that longevity benefit. So that's what first got me intrigued with EGCGs, and I can't stop loving them, and I think we all... I know so many people that drink many cups of green tea every day.

**SHAWN STEVENSON:** Right. I'm so glad you brought that up about they're knocking down quite a bit of green tea, would you say seven cups a day in some instances, yet not experiencing any caffeine overdose in a sense, because of the other balancing compounds in there. L-Theanine is in there, as well, helping to balance and aid in focus. But that EGCG compound and then we... I don't even know... And this is why I'm so grateful to have you, I don't even know if we've talked about it on the show before, but it has some interesting aspects with metabolism...

**NAOMI WHITTEL:** Oh yeah.

**SHAWN STEVENSON:** Fat loss and...

**NAOMI WHITTEL:** Oh, I know. So it's such a beautiful, beautiful, beautiful compound, and it activates autophagy. So I think, we talked about matcha today but you really look at the countries throughout Asia, and how much of a staple green tea is, then how is it harvested? Because most of the green tea that we're drinking is coming out of China, and I am not a fan

of most ingredients, like 95% of the ingredients, that come from China because the... It doesn't mean that there aren't some farms or some environments that the ingredients are clean because it's never one way or the other, but as a whole, I don't source my ingredients from there because I can't trust the supply chain, you just can't... But if you can get green tea from a place like Okinawa or parts of Japan, and you understand how much a part of their culture and ritualistic it is and the way that they process it and harvest it and grow it, it's like martial arts. It's so beautiful.

**SHAWN STEVENSON:** Wow, martial arts for your tongue.

**NAOMI WHITTEL:** Yeah.

**SHAWN STEVENSON:** That's great. So some of these others... And that I love this, there's so many that you talk about in the book, but I want to talk a little bit more about some of these things that support autophagy, like sulforaphane, for example. Let's talk about that.

**NAOMI WHITTEL:** Yeah, I know. So sulforaphanic acid coming from broccoli sprouts, let's say. So I would say for anyone that's listening, I'm always trying to find the ways to optimize my biology. So sprouts, micro-greens are an amazing source of that. I actually first was introduced to broccoli sprouts when I was in China. So I was in China, this is super fascinating, interesting, dynamic. I was at the US Ambassador to China's home at a dinner, and one of the people that was there was talking about the trends in China. So there's so much pollution in China, right? And everybody's obsessively concerned with it as they should be, and trying to find the ways that they could reduce pollution or the impact of pollution on their bodies. And so one of the people at this dinner was talking like, "This is the big trend, trying to find the ways to reduce the pollution in the Chinese," and so I went back and I went to my team of researchers, and they said to me the number one ingredient to reduce pollution in your body is broccoli sprouts or the sulforaphanes. Okay, well, that's easy to incorporate, right. I can just add a lot of that to my salad every day, and that's what I started doing, and then I started to understand how much this activates autophagy. It's one of the best... It's a micro-green but it's like a super plant because it's so condensed. So I really highly recommend for all of us to eat as many of them as possible.

**SHAWN STEVENSON:** Another thing about your work, you talked about the different dynamics that autophagy impacts. One of the things that you'd brought up, which as soon as I saw autophagy in your book, I'm like, "I'm hoping that she mentions cancer protection," and on a recent episode of the show, we'll put it for everybody in the show notes, we were talking about the doctrine of signatures and how certain foods look like certain human body parts but is there any peer-reviewed evidence to show like it really does correlate. And so we were talking about broccoli and how it has a similar appearance to our lungs and the bronchials and just the... And all those little buds and all those different things, and there were some really fascinating data, and this was from research that Johns Hopkins found that sulforaphane helps to restore immune system pathways within the lungs that clean out harmful pathogens and reduce the risk of infections autophagy... But listen to this, researchers at UCLA also noted the potent ability of sulforaphane to reduce inflammation in the lungs as well. So these are all these kinds of cancer-defending aspects that sulforaphane brings to the table.

**NAOMI WHITTEL:** It's beyond... I love it so much, and I talked about it in food. You go to my fridge right now, you will never not see broccoli sprouts. I eat them every single day. But you go to my vitamin cabinet, you're always going to see my sulforaphanic acid in there as well because I take it every single day. I believe so much in it. I think it's foundational on a nutrient level for us because it's so therapeutic and it's so powerful. Even if 70, 80%, probably more, of your audience takes supplements, okay, foundationally we could have at the base of our multi-vitamins sulforaphanes, and that would be so powerful for us. And I think we're going to see those kinds of trends happening. It's not a super cheap ingredient, but the results are so powerful.

**SHAWN STEVENSON:** So you mentioned autophagy in relationship to cancer prevention in the book, but you also mentioned this, this is so important for this time right now, autophagy in relationship to defending our body from viruses and pathogens. Let's talk about that. This isn't being talked about by our "health" officials, is what are the things we can do that are supportive of autophagy for defending against these things, which again, this is a very simple biological need that we have, and it's just kind of getting overlooked.

**NAOMI WHITTEL:** You know, it's like... Autophagy is dynamic, in the sense that you don't want to always be activating it, you want it to be activated and deactivated back and forth like the ocean coming in and out, right? Because autophagy, because it is this natural process within our bodies can sometimes even enhance cancers, so there's this dynamic that we need to be aware of as it relates to autophagy, but to your point, which is so important for all of us right now, more than anything, it's this idea of, "How do I build my defenses? How do I become the strongest version of myself? How do I deal with all of the misinformation?" Like we are in misinformation overload right now, and it's really challenging because it puts us into a place of fight or flight, which is the opposite of rest and digest, when we're in rest and digest, we activate and deactivate our autophagy in the correct manner. We also detoxify our body, we also build up our immune function, so it's thinking about all of these sort of things and then understanding, okay, these ingredients like the sulforaphanic acid, like Berberine for viruses and funguses, and resveratrol, which I talk about a lot in here.

The EGCGs, they all have the capacity to help us become our strongest version of ourself, and I would tell you a lot of listeners have heard of Berberine. So Berberine has been used for centuries as an anti-viral. Similar to Monolauric acid, which comes from the coconut, it's used as an anti-viral and it has just tremendous interesting research over time, but Berberine is one of these ingredients that comes from a berry and it activates autophagy, it's really, really one of those powerful polyphenols. What it does to support our immune function, to increase our production of brown fat, to help us reduce the white fat all of these sort of things, these kind of plants can really be supportive.

**SHAWN STEVENSON:** Oh, it's so good. I hope everybody's taking notes on this one today. And I love that you mentioned the ebb and flow, because I think, again, the American way is just like, some is good, all of it's better. So we're not having these systems of autophagy functioning, just all or nothing, it's the ebb and flow because we also need the growth part. The growth and development. And when you said that earlier about basically when we go back to school when we think about cells are either growing or dying, that's life itself, you're either growing or dying, but this process is taking place all the time, so what can we do to support it, because I think we can do some things that clog up autophagy, which I want to talk about in a moment. I want to bring this up too because when I mentioned broccoli earlier and the



connection to autophagy and viruses, it added a new dimension for me. I just shared this study as well, and in that episode, which again, we'll put it for you in the show notes, if you missed it. What are you doing? Get to this one. So this was recently published in Trends in Pharmacological Sciences and it highlighted how sulforaphane acts upon the defensive pathways used by the lungs and other tissues that combat excessive inflammation triggered by COVID-19.

Alright, so what I love is that researchers, again, they're asking the questions. Who thinks about broccoli and COVID? Well, many people do, and now we have the ability to ask these questions to run some clinical trials, to publish the data, but we have to demand it, we have to do the work that you're doing to make it much more accessible for people to think about things, ask these questions, formulate hypothesis, test things. And so I want to ask you about... Because you did this with your book prior, you mentioned you put a clinical trial together, so can you detail what happened? Because the results are almost unbelievable. And this was with folks at the University of Jacksonville, correct?

**NAOMI WHITTEL:** Yeah, Jacksonville University.

**SHAWN STEVENSON:** Can you talk about that?

**NAOMI WHITTEL:** Uh-huh. So we... I went to the researchers at JU led by this one researcher, Dr. Heather Hausenblas and I said, "Okay, I've got this dream." 'Cause I'm an entrepreneur, right? I think a lot about what could be. I am always thinking about the future and building concepts or whatever it might be. And so I said to them, "Hey, I have this idea. What if we could study all of these different aspects of this clinical research around autophagy? This would be really cool." And they thought it was so weird and sort of out there, but then they started to design the study, the team of researchers, and they got excited because we were going to look at how this group of women, 35 women, how they slept. We were going to incorporate autophagy activating foods, autophagy activating exercises, we were going to incorporate the skincare, we wanted to see if the skincare worked, because I was like, "I really want my own skincare that I can use." And we looked at also the way that... We brought in meditation and mindset, so it was very unusual and very holistic. And we did this study and... First of all,

everybody was part of the study. We had one person that had to drop out because she had a surgery that she had to do, but nobody dropped out of the study, which was very unusual.

**SHAWN STEVENSON:** That's rare, yeah.

**NAOMI WHITTEL:** Yeah, super rare. And it wasn't like we were asking them to do just like one or two interventions like this was a big deal, and they all stayed in and every single person in the study benefited. So they benefited in various ways, from skin to weight loss, to improvement in energy, to all sorts of markers that we really carefully had the researchers study, and we couldn't believe it. There wasn't a test to say, "Okay, how much autophagy was activated," but we really were able to sort of study all these other areas and the way that their body responded.

**SHAWN STEVENSON:** Right. I think every person had improvement in body composition.

**NAOMI WHITTEL:** Every single one. Can you believe it?

**SHAWN STEVENSON:** That's right. That's incredible. Yeah.

**NAOMI WHITTEL:** Yeah.

**SHAWN STEVENSON:** But it makes sense. You're taking the data from the top experts in autophagy-related to exercise, to nutrition, and putting it together in a cohesive plan, which is what's in the book.

**NAOMI WHITTEL:** And it was so great. And the book came out in 2018, it was an instant New York Times bestseller. I just thought, "This is so crazy and so weird because nobody can even pronounce this word." Everyone thought I was nuts to put it out there, but we were talking... I've been fasting, an intermittent fasting, most of my life. And so we talked about intermittent fasting and we spoke about fat first, carbs last, and it was when I was really starting to understand the benefit of fat as my primary macronutrient and what that could do to reduce inflammation in my body. So it was unbelievable to see these kinds of results coming, and it's

still totally on the cutting edge. What's the biggest topic right now, intermittent fasting, right? Everybody's writing books on fasting and they should be because it's what will get us healthier.

**SHAWN STEVENSON:** Yeah. So it's not just what we're doing, it's what we're not doing as well.

**NAOMI WHITTEL:** Yeah.

**SHAWN STEVENSON:** So how does intermittent fasting play into this role of cellular cleaning.

**NAOMI WHITTEL:** Yeah, it's... It just, it helps to strengthen, it truly helps to strengthen the way that the autophagy is expressed. So we need to give our bodies that time to do other things rather than just focus on digestion. When you and I connected the other day, I was getting ready to do my Olympic lifting in my backyard, right? So you saw the bar...

**SHAWN STEVENSON:** The barbell, you had a date at the bar.

**NAOMI WHITTEL:** And I'm here in LA from Florida, we talked about me being out here for the summer, and I brought my barbell and I brought my own equipment because I know that if I can do that Olympic lifting, three, four times a week... It's not sexy, it seems very odd, but if I can do that and I can get under that bar and I can release that cascade of hormones and I can experience all of those benefits, then I'm basically at a cellular level giving my body that activation. I'm strengthening my autophagy just like I'm strengthening my muscularity.

**SHAWN STEVENSON:** So I want to lean into this with intermittent fasting a little bit more because, as you mentioned, this is top of mind for a lot of folks, but it's not a new invention. Humans really, this is how we evolved. There are times of feast, there are times of famine, and our kind of regimented breakfast, lunch, dinner paradigm, it's a new invention, not to say that it can't be helpful because showers are new and it's helpful, but it's just like what is our genetic template expecting from us? And so the constant eating, I would imagine it engages a lot more need for autophagy without necessarily the autophagy being capable of balancing out that need.

**NAOMI WHITTEL:** Yeah. You're totally a 100% right. So to your point, fasting is... It is our primal nature, and when we fast, there's a lot of thoughts like, "Oh, you have to be fasting for three to five days in order to activate autophagy." Not true. The top researchers recognize that after 16 hours, you're already getting that benefit, and of course, you can go deeper. And we know with fasting, like five days of water fasting, which I highly recommend and I love, and I've done it so many times, you're activating your stem cells. And so the world of fasting as it relates to all of us is extremely important. And there's... Sometimes people get afraid of it, they think different things, and there's a lot of misinformation around fasting, but it is... It's something that we've been doing forever, feast or famine, and it really does strengthen our biology because when we're not focused on digestion, we're getting all the other benefits that we should be doing. That's why at night when we're sleeping smarter, that's when we're activating the autophagy. And we hope that if you do, let's say, an intermittent fast and you stop eating at 8:00 or 8:30 at night, and then you don't start until noon the next day, that's very easy for the body to do, and it will show its appreciation by giving you more energy, by allowing you to be more focused, by giving you the opportunity to do so many things that you maybe don't have the capacity to do when you're clogged up.

**SHAWN STEVENSON:** So during that fasting window, could folks still have their green tea with the EGCG?

**NAOMI WHITTEL:** Yeah, absolutely. So as long as you're not stimulating the digestion, there are some thought processes, and I totally get it, where certain plants, if you're consuming certain plants and teas, or whatever, are activating certain processes in our body. So a lot of people will not, but just as many will, and you're still going to get a ton of benefit. And if you're drinking the green tea and you're thinking about autophagy and you're not adding anything to it, then you're in a good place.

**SHAWN STEVENSON:** That's so good. We've got this whole category, and it's growing, of these fasting-mimicking nutrients that just kind of even support like you've got these things here, it would just seem likely that it's going to support the process that you're trying to achieve. Now, I love, of course, when I come across things that... I've... It's almost 20 years in this field, every

day I'm obsessed with something that I haven't heard of yet. And you talk about this one in your book, spermidine...

**NAOMI WHITTEL:** Oh, yeah.

**SHAWN STEVENSON:** And as soon as... I'm just like, "That sounds like sperm. Is this... Where is this going?" Can you talk a little bit about that?

**NAOMI WHITTEL:** Yeah, of course. I know we learn every single day, right. It's so crazy how much information is out there, and yet how simple we have to keep it, because I keep coming back, here in the US, where our belief so much is bigger, better, more, but in reality... We were talking about regions of Africa right before we started the show, and in reality, sometimes it's just like the most simple basic principles, and we are in this overload of information. So you think about something like spermidine. So yes, spermidine comes from sperm. It also comes from certain foods. And what spermidine does is it is very effective at activating autophagy. So spermidine is not something to get rid of. If you have access to it, put it on your skin. It is incredible for activating the youth. If you can eat foods that are filled with spermidine... There are spermidine ingredients that are coming out into the market now, from different elements of wheat, but there are other sources of it, I list a bunch in the book, that really are huge with spermidine. So you're going to see a lot more of it over the next couple of years coming out, sort of in the products.

**SHAWN STEVENSON:** Okay, did you say rub it in your skin?

**NAOMI WHITTEL:** Yes, absolutely.

**SHAWN STEVENSON:** Alright, so the...

**NAOMI WHITTEL:** And then I probably blushed.

**SHAWN STEVENSON:** The name spermidine, it was originally identified in sperm, and then now it's known to be in all these different foods as well.

**NAOMI WHITTEL:** Yeah.

**SHAWN STEVENSON:** But I actually, when I... As soon as I read some of this data in the book, I was just like, "Let me go look at some of the peer-reviewed evidence." This is in the Journal on Aging, the title of the study is "Spermidine Delays Aging in Humans."

**NAOMI WHITTEL:** Correct.

**SHAWN STEVENSON:** And there were so many studies on this, so I was just like, "What in the world?" So, of course, we've got these foods identified, but apparently, sperm has some really deep nutrition.

**NAOMI WHITTEL:** Oh, my gosh. Unbelievable, that's why I said, "Don't let it go to waste." Like that... That's a really important part of our youthful aging. And for all the women out there, I'm making it pretty clear, right?

**SHAWN STEVENSON:** Yeah.

**NAOMI WHITTEL:** So when you think about it next time, you're all going to be like, "Yeah, Naomi said I should do a spermidine facial."

**SHAWN STEVENSON:** Oh, my God.

**NAOMI WHITTEL:** But no, seriously...

**SHAWN STEVENSON:** Don't let it go to waste.

**NAOMI WHITTEL:** Like it's... You can't. This is part of the beauty of biology. And at the end of the day, I... As I said, my mother... I'm European, my mother is French, I grew up with a very different mindset around the human body and appreciation for sexuality, and we live in a different society here.

**SHAWN STEVENSON:** Yeah, it's very taboo, all of this stuff.

**NAOMI WHITTEL:** I think all of that mindset is unhealthy. I really, fundamentally do. So I'm all about embracing what is healthy and youth is healthy, and our sexuality is healthy, and these are important parts of that 360 approach.

**SHAWN STEVENSON:** Let's dive in deeper here on this one because before we got started, you actually mentioned some research regarding female orgasm.

**NAOMI WHITTEL:** Yeah.

**SHAWN STEVENSON:** Can you talk about that?

**NAOMI WHITTEL:** Yes. So when we were doing research for the book, that's how we first came across spermidine. And I remember exactly the moment that we did that because we were in a research lab with a couple of professors at University of Florida, and we were coming across these incredible studies, and we're just like, "What?" So then we were making all these fun jokes, but it definitely stuck because it got into the book. What we also learned around women's health is that as a woman, we need to have at least 200 orgasms every year. So, ladies, that's one of the best ways for us to really sort of improve our overall health within our body and to give us the energy and the vitality that we're needing, right? Like you think about how much women have gone through during this past year, more than anyone, right?

**SHAWN STEVENSON:** Yeah.

**NAOMI WHITTEL:** Like your wife has probably had more weight on her shoulders than at any other time in her life, I certainly have, your listeners certainly have, and we haven't had the opportunity to give ourselves the self-care that we need. Orgasms are a really important part of that.

**SHAWN STEVENSON:** I would imagine that, in addition to the benefits that we know, the release of all these feel-good hormones and neurotransmitters, but there are so many

dimensions with... If we're talking about that switch from the sympathetic to parasympathetic, the longevity implications there as well, because I think that's what the study was really pointing at, is that the frequency of female orgasm is associated with a whole host of other benefits, especially with longevity.

**NAOMI WHITTEL:** Oh, yeah. And there's more and more and more research that's coming out now. I can tell you... Growing up, as I mentioned, my grandfather, the quantum physicist, the French grandfather, Jean Paul LeFrey is his name. He's very famous in France. He's written the history of physics, but he... When I used to spend summers with him when I was young, he had a completely solar house in the south of France.

**SHAWN STEVENSON:** Wow.

**NAOMI WHITTEL:** Like we didn't have a refrigerator. He had... We would go down into this dark area, I can't even think of the name of it, this cavern at the bottom of his house that he had built that was completely solar and that's where everything would be. And it was a small village that he lived in, so we constantly had fresh... Everything was fresh. So we'd have these trucks that would come and bring the meat, so or bring the fishes or bring the vegetables, and so that's how we would eat in a very fresh format. But he said to me when I was young, and I think it's important for everyone to, sort of as we're level setting after what we've been through collectively, he would always say, "No, don't ever let go of the little girl inside of yourself. Play, focus on happiness, do things simply." And that's where it comes into sexuality with your partner is it's play for adults and it's healthy and we need to be doing these things. So keeping that 200 number in mind is going to be one of the greatest ways to keep that longevity.

**SHAWN STEVENSON:** Hashtag goals. Alright. So we're going to move on because you also mentioned earlier that it's... Obviously, we talked about intermittent fasting, but there are certain things that can block or inhibit this process of autophagy because again, we're looking at things that can help to improve this metabolic essential that can be stifled in our culture today. So what are some of the things that can block this process from happening? I know that one of the big things here, like in our culture, the average American is eating somewhere in the ballpark of 70 pounds of added sugars every year. So is this an issue tied here?



**NAOMI WHITTEL:** Yeah. Certainly. Any sort of glucose activator. If your insulin is becoming less sensitive, then that directly affects autophagy. So you need to have balanced glucose levels. You can't have those kinds of spikes if you want to have balanced autophagy, and it's really, really important. I couldn't agree more with you, Shawn, when we think about the one thing that makes the majority of the difference. We're talking about a lot of nuances here, we're having a big conversation, we've both been doing this for over 20 years, we're super passionate and very blessed to have the connectivity that we have with so many other very curious and so many brilliant people that are out there. But fundamentally, if we were to just remove that level of sugar, how healthy would we be?

**SHAWN STEVENSON:** Yeah. So simple, so simple, but it's not easy. In our world today, it's... We're inundated with it. It's raining sugar granules everywhere we go.

**NAOMI WHITTEL:** And it's so addictive, right?

**SHAWN STEVENSON:** Yeah.

**NAOMI WHITTEL:** Don't they say that it's more addictive than heroin or something?

**SHAWN STEVENSON:** Yeah, yeah. There was a really interesting study done... Because there's... With ethics, certain things can be employed in humans, so we're giving mice the opportunity to choose between sugar and saccharin as well, that's another phase of the study or cocaine, the mice preferentially choose the sugar. Even mice who were addicted to cocaine, they shift over...

**NAOMI WHITTEL:** Wow.

**SHAWN STEVENSON:** Once they have sugar and sweetness as an option. It's the strangest, most remarkable thing. But then you get into the conversation, well, it's like we're talking about cocaine and potentially crack like, "Shawn, nobody's out there selling their furniture to get a hit of a candy bar." But in reality, if you think about... Because we don't have to, that's the thing. It's very different.

**NAOMI WHITTEL:** That's right.

**SHAWN STEVENSON:** You don't have to have to do those things. It's so ever-present in our culture, but we know the symptoms when you... The withdrawal that you go through when you don't get the sugar, but we just have easy access to it. So we really don't know what you might do when you go through withdrawals, you know what I mean? And we've seen it, of course, and... In different patients that I've with over the years, there can be some withdrawal symptoms for sure, but the beautiful part is there's so much that we can do. The body is so resilient and interesting with its management of sugar that it can be a more graceful process than just that brain-dominant action of something like heroin, for example. But your body is always seeking to get back in balance and improving that insulin sensitivity and... Again, so I'm thinking about it as soon as we brought this topic up, having sugar poured into the autophagy process is kind of like a glue, like gumming up...

**NAOMI WHITTEL:** That's right.

**SHAWN STEVENSON:** Creating a little sugar bridge just blocking the process from happening, so I just... Using that as a visual.

**NAOMI WHITTEL:** I think it's a great visual. For me, when I did not know how addicted I was to sugar until I started...

**SHAWN STEVENSON:** You're in a safe space so...

**NAOMI WHITTEL:** Yeah, I know, it's like I just have to say, I had no idea how addicted I was until I started to really get into wanting my body to reduce the inflammation and start keto. I probably fell off the wagon maybe five times and living in the spotlight, wanting nothing more than to have that 3.4 wherever I wanted to be with my ketones, and still needing that sugar, kept falling off. I'm like, "Okay, I'm going to get there one day." And I finally did get there, and then I was like, "Well, why is my mood so blah? Am I getting depressed? No, this is what it's going to be like until I'm more balanced and I'm not dependent on these sugar spikes."

**SHAWN STEVENSON:** You don't have that high.

**NAOMI WHITTEL:** Yeah, it took a long, long, long time. And then as soon as I introduced sugar again, I was like, "Oh, yeah, I'm right back." Which is sad but it's true. So sugar's a big deal and it's also looked at in society, like with our kids, I never let my children eat cereal, they just never had it in our house, and then we're out here in California, they're like, "Could we buy a cereal at our favorite Sprouts, Farmers Market?" Which by the way, I'm totally in love with and very excited about where they're going, and I thought to myself, "I want to give my kids what they want." We associate sugar with love.

**SHAWN STEVENSON:** Right, deeply.

**NAOMI WHITTEL:** So to like, "Wait, what am I doing?"

**SHAWN STEVENSON:** Yeah, after every... After the baseball game.

**NAOMI WHITTEL:** Totally.

**SHAWN STEVENSON:** For holidays.

**NAOMI WHITTEL:** Yeah.

**SHAWN STEVENSON:** We've got a whole holiday dedicated to pre-diabetes, right? With Halloween, and I know for myself personally, it's just... And it's so cheap too. I can go to the corner store with a dollar and I can get 100 pieces of candy. It's called penny candy, and then it bumped up like to two-cent candy, it didn't have the same ring to it as penny candy, but just imagine the amount of sugar that I'm ingesting, and again, it's not an accident that the majority of my family members heart disease, cancer, diabetes, it's just like, it's normalized, and we don't often, unfortunately, tie it to these things that we're inundated with, but I think that's really changing a lot recently, but we've kind of taken a little bit of a step backward, with all things COVID, but I'm hoping... And this is why we do this, in having these conversations, is to jettison all this stuff that's happened and jump us... Make a quantum leap, instead of just

like the slow progressive change in society, things have gotten so bad, but the conversation hasn't been focused on, "What are we going to do to get people healthier?" Right, because the CDC's latest report, over 95% of the folks, who died with COVID on their death certificate, had an average of four pre-existing chronic diseases and/or co-morbidities.

**NAOMI WHITTEL:** Yeah.

**SHAWN STEVENSON:** It's insane. It's absolutely insane, but that part is not being discussed, like, "What do we do to reduce..." "This is the clear number one susceptibility, "What do we do to fix this? Because we're doing all this window dressing." So just really excited about this, because I think that, with things being so blatantly obvious, right in our face, like, "This is the problem." Eventually, people, we have to see it. I think our jobs and what you're doing right now, you're basically... You're sharing autophagy for our retina and getting us to be able to see more clearly, so we could see the thing right in front of our face.

**NAOMI WHITTEL:** You think about the pandemic, the epidemic, is it really an obesity epidemic that we have in this country? 70%, 80% of our country and the amount of COVID, the amount of COVID deaths and what you were just discussing. So I think for us, it's not about beating ourselves up because it's so simple to be like, "Yeah, I'm bad, I'm doing the wrong things." That's actually not true. Here in the US, because I've lived all over the world and I travel, that's what I do to discover interesting ingredients that have been used maybe for thousands of years in other cultures, right? We're following what we're being told to do. This is a very compliant society, despite the most amazing entrepreneurial spirit that exists here, the amount of innovation that is created, like this, is the real... We are in the real deal, but on the other side of it, we're dealing with so much obesity and it's affecting our children, childhood diabetes, it's a real thing.

**SHAWN STEVENSON:** Skyrocketing.

**NAOMI WHITTEL:** And there's so much going on, and so it's not about saying, "Okay, we're bad, we're doing wrong things." It's more about sort of changing the script to, "How do we optimize our metabolism? Like how do we take the food that we're eating and convert it efficiently into

energy?" Which is what happened for me when I learned about autophagy, and then I recognized, "Okay, I can activate my autophagy, but it's also relating to my insulin sensitivity. It's also relating to my cholesterol, my lipid profiles, the circumference of my mid-section, the amount of weight I have around my organs." All of these people throughout our country are basically living life with dysregulated metabolisms, including myself. Metabolic syndrome is these five markers, and so many of us, if we don't have a metabolic syndrome, we may have two or three of those markers, and I discovered like, "I did." So after understanding about autophagy, then it's like, "Okay, let's get fundamental here. Let's talk about how we can optimize simply the way we convert our food into energy." And that's what metabolism is all about, and that's what whole-body metabolism is about, and just by getting the sugar down-regulated, increasing other macronutrients, we can make a big difference and we can do it easily.

**SHAWN STEVENSON:** Right, so true, so true, I love this. We've got a quick break coming up, we'll be right back. Today, we're in the midst of a new revolution with our understanding of food. We used to just be focused on this macronutrient paradigm, proteins, fats, and carbohydrates. Carbohydrates and proteins got a pretty good name, but fats were dragged through the mud. Why is that? Because it's called fat. Alright, the name implies something different than the other two, because when we hear the word fat, we think about fat on our bodies. Fat in food and fat in our bodies are two totally different things, and it's like thinking, "If I eat blueberries, I'm going to turn blue." When you think that eating fat is going to turn you fat. It just doesn't work like that, and any of those three macronutrients can actually put fat on your body if you eat too much or the wrong types.

Healthy fats, which I'm proposing that we start to call lipids or even energy are incredibly important for every single function in your body. Your cells, every single cells in your body... We have upwards of 100 trillion cells that make you up, require fats to just maintain the integrity of your cell membranes. We're talking about the thing that holds your cells together and enables your cells to communicate, it's very important. Also your brain, your brain is mostly fat and water, this is why fats are so important when you're deficient in fats... Especially the right kinds of fats, you can see some big issues, so in order to address that, some of my favorite things today are MCT oils, and specifically, if we look at emulsified MCT oils that actually taste

amazing, and these are medium-chain triglyceride oils that are extracted from things like coconut, palm, and these medium-chain triglycerides have a thermogenic effect on the body, which means they are able to positively alter your metabolism.

Alright, that's number one, thermogenic effect from MCT oils. Positively altering your metabolism. Number two, MCTs are more easily absorbed by your cells. So unlike conventional food of any type that has to go through a pretty arduous process of digestion, turning that foodstuff into you stuff, MCTs are able to go directly to your cells and provide almost instant energy. And number three, MCT oils are very protective of your microbiome, there's so much research today about the importance of having a healthy microbiome and the integrity of our gut. MCT oils are one of those things that help to support that because they're especially effective at combating viruses, parasites, bacteria, there's so much goodness that is able to be found in these MCT oils.

But you want to get the good stuff. And for me, that's why I go to [onnit.com/model](http://onnit.com/model), that's O-N-N-I-T.com/M-O-D-E-L, to get the emulsified MCT oils, which is like a coffee creamer. These are great to add to your coffees and teas, smoothies, and things like that, to get in a little bit of extra flavor, plus all the benefits of MCT oils. They're easy to stir, so you don't have to throw everything into a blender just to get a nice coffee drink, but also they taste good and they make the process of being healthy fun and enjoyable. So head over, check them out, they got vanilla, coconut, cinnamon swirl, and strawberry, is one of my favorites. So go to [onnit.com/model](http://onnit.com/model) for 10% off your entire purchase. Not just for the MCT oil, but all of the health and human performance supplements that Onnit carries, and all of their fitness equipment, gear and so much other cool stuff. Head over there, check 'em out, [onnit.com/model](http://onnit.com/model). Now, back to the show.

So you mentioned... You said this word, and I don't want this to pass, you mentioned we live in a society unbeknownst to us oftentimes, it's very compliant.

**NAOMI WHITTEL:** Yes.

**SHAWN STEVENSON:** But we also have this tenet of freedom, we have this entrepreneurial spirit, but from a very early age, we are really entrained to follow authority, to not question authority, and to be basically indoctrinated with certain ideas about how education looks, and there's so many different things we're programmed with unknowingly, again, when we send our kids off to school, and so now again, we have changes taking place in the education system, thankfully, but again, we have this belief about freedom, but we're also very compliant in the things that we accept because the majority of the reason why I was struggling with my health, so mildly, when I was younger, diagnosed with the so-called incurable spinal condition at 20, an advanced aging disease in my spine at 20 was because of what happened in my educational institution. When I was at school, I was getting the Free Lunch Program, which was Frosted Flakes, my cereal to start the day and a little thing of juice, and for lunch, I got my pizza or my chicken nuggets, I don't know where that part of the chicken came from, it didn't even have chicken consistency, but also seeing these big food companies coming into the organization as well with the vending machines, and then they bring their marketing teams out when new products are hitting the market, whether it's some hostess products or Surge.

I remember when Surge soda came out and they'd come and they give the free samples, and I'm just all for all of it because I'm just being indoctrinated with this is normal. So a big part of this is taking back control of our minds, but also realizing still it's not what you do every now and then, it's what you do consistently, and I love that about your work as well, because sometimes you're going to come across a croissant, it's not going to kill you, but if we're going balls to the wall croissants all the time, it might not be a good idea. And also you being... Your mother is French, and then there's the French paradox as well.

**NAOMI WHITTEL:** I know.

**SHAWN STEVENSON:** You know, so it's just like... But here in our culture, currently, it's not just the croissant, it's like deep-fried, and is dipped in chocolate and filled with cream and all these different things, and we're doing this stuff on a consistent basis, so I just want to give people a permission slip, we can still enjoy these things, but you mentioned a really important tenet earlier and this is what I want to ask you about, which is fat first carbs last. So let's talk about that.

**NAOMI WHITTEL:** In a way, it relates to the French paradox. I was in the south of France with my cousins, and one of my cousins, Eric Lafforgue, a French medical doctor and his gorgeous wife Aude, who is a nurse, we were hanging out a bunch of years ago, and I was watching them eat like crazy amounts of fat, so triple cream Bries and all of this fatty food, and if you were to see the two of them, they look like Ken and Barbie. They're ridiculously thin and they have tons of energy and they're living this very... I don't know how I would put it, just joie de vivre, they have this joy of life and they are not saying no to the pleasures in life. I don't know. Part of what I love so much about different cultures is you get to eat foods that you may have never tried here, and in France, when you bite into a peach, that peach tastes completely different. It's so fresh, it's so juicy, it's so delicious, it's ridiculous, and so I was always thinking like, "How do the French get access to these peaches? It doesn't seem fair for us here in the US like we're missing out on a lot of the juiciness of life."

**SHAWN STEVENSON:** Literally.

**NAOMI WHITTEL:** Yeah, literally. So Eric and Aude, are drinking a lot of red wine and they're eating all this ridiculous amounts of good food, and so I started to think about the French paradox, which is that the French, despite a super fatty diet, they eat lots of butter, they eat lots of all of it, have some of the strongest cardiovascular systems in the whole world or in the Westernized world. So how does that work? And it has something to do with these polyphenols that are found in red wine, it has something to do with the onions, the garlic, all of the... Olive oil, all of these kind of foods that they're ingesting, and so it got me really thinking, "Okay, the French paradox is alive and well. How do we say yes? Like how do we say yes here in the US? I don't want my girlfriends to have to constantly tell themselves, No." Life is too short. Come on, let's go. Let's say yes. You know about Yes Theory, those kids, they just say yes to everything, and then... Where does that take them? Let's get there. So fat first, carbs last is based on the French paradox, and if fat can be what you're consuming at the beginning of the day, you're increasing your ketone production, I've got some MCTs in my great tea here, thank you.

And if you're going to incorporate carbs, of course, I like to keep that carb level down, I feel the best when my carbohydrate intake is like 50 grams, somewhere around there, but if you are going to consume more carbs, and a lot of people do, for exercise, for whatever reason, you



do it later in the day into the evening, it helps you sleep better, it also helps with the activation of autophagy because fat first and the ketone production all works hand-in-hand. So it's a long answer to French paradox, Yes Theory and fat first, carbs last.

**SHAWN STEVENSON:** This is so good, so good. Well, I've got a couple more questions for you. We've obviously really focused on nutrition and the lack thereof, potentially of inhibiting autophagy, but what are some of the other things in our lifestyle that can basically gum up this system of autophagy that our bodies wanted to do to give us health.

**NAOMI WHITTEL:** There's certainly the environmental pollutants, the quality of air, getting out into nature. I love to do it. We were just talking about it the other day, if you can do that early in the morning, if you can go for a walk outside, if you can get into a forest and have a forest bath, just even exploring nature, observing nature, all of those activities are really beneficial to your circadian rhythms, even, so you know, we always talk about the clock that's in every single one of our cells, but getting into your own rhythm, understanding it like with your Sleep Smarter, okay, for me, I learned through the process of writing Glow15 that, Okay, I don't need eight hours of sleep, I'm better off focusing on five of my sleep cycles, which are like 90 minutes a pop, that activates my circadian rhythm, and that also helps to de-clog the negatives that relate to autophagy, and that helps to strengthen my autophagy. So tapping into your own primal beats essentially which are uniquely yours, is really a great way to sort of strengthen autophagy and then also reduce the negative impacts of environmental pollutants or dysregulation, essentially, metabolic dysregulation. Dysregulation in whatever way.

**SHAWN STEVENSON:** Yeah. You mentioned specifically some toxins that we put on to our skin, I don't think a lot of folks realize, we've touched on it several times over the years, but it's such a big issue because your skin eats what you put on it.

**NAOMI WHITTEL:** I know. It's so crazy. It's a really controversial topic. So because of my eczema and being born in Switzerland, the kind of products that I've used on my skin have always been products that I could literally ingest comfortably, and I'm not a big fan of sunscreens, I'm more afraid, and I have never been, like... A lot of the ways in which our body activates the autophagy in our skin is at night, so if you're putting a bunch of night creams on, your body is getting

clogged up with that, and it slows down the activation of autophagy, which creates more of that aging process. So a lot of what I will say is contrarian, but it's what I've always done, so I try to not use any products unless I can ingest them in my mouth comfortably. I like to work with my own circadian rhythm as it relates to my skin, which means I need to be paying attention to not clogging it up, which happens at night when a lot... So for women, if you're in your 30s like late 30s is when you will start to see the signs of aging, the beginning signs, so maybe some fine lines and wrinkles and there's some distortion in the way that the cells are replicating, and you're just noticing it on the very outermost layer of your epidermis, your collagen fibers, which is like our dermis, and everybody's learning about collagen right now, but by the way, like our sisters in Asia have had it right for hundreds of years.

So in 2009, when I first brought collagen as a beauty ingestible into the US market, it wasn't like I knew something, it was that the women throughout Asia, were consuming 20 grams of protein, collagen, but beauty collagen for the skin, which is different than bone broth or a whole body collagen, they were consuming the skin collagen in various supplement forms, they were consuming pig ears, all these different cartilage, high elastin ingredients like the skin of fish is made of elastin, and they start doing that when they're little girls, their parents give it to them. So for a woman in her 30s, her production of collagen, which is like the support of our skin has been going down, maybe it's gone down by 15% by the time she's in her late 30s, and then once we get into our 40s, what starts to really happen for our skin is, it's not just the fine lines and wrinkles, but it's also the elastin that has declined rapidly. We don't know about elastin in this country yet. I'm going to be talking about it, we're going to be bringing it into the conversation because we as women really need to know about it.

You, for example, going back to collagen, your collagen fibers are crossing, so you have these strong bonds with your collagen fibers, that's why when you're in your 50s and your wife is in her 50s, she will look much older than you do because her collagen fibers are parallel so that she can give birth so that we can stretch, but the bonds that hold our collagen fibers together are much weaker, so the matrix that holds our skin and pumps it is really reducing in our 40s. So we have to be thinking about skin, really not very much, what we're putting on it, more about what we're putting into it to create our well beauty, and that's wellness from the inside, expressing beauty on the outside, and then what starts to happen in our late 40s, is we start

to leak the moisture out of our skin, so skin products need to be things like ceramides, ceramides are essentially...

If you think about a brick wall, they're like the mortar between the bricks, so as we get older, that mortar sort of breaks down, the bricks aren't as strongly held together, and that's how we leak out our moisture. So the best thing you can do for your skin is when you wake up in the morning, drink 16 ounces plus of water because you've leaked out moisture and hydration out of your body. Eat green vegetables that are filled with hydration, so you can penetrate the cells more efficiently, to really get the hydration up. There's a lot of skincare, that's really about what you're doing through your mouth, into your body, so it's an inside-out job.

**SHAWN STEVENSON:** Right, that's so... It's so simple, it makes sense, this is where your body is generating what you see in the mirror is from the food that you eat.

**NAOMI WHITTEL:** Totally.

**SHAWN STEVENSON:** So we're treating our skin from both ways, topically and also most importantly, from the inside out, so I love that, well beauty.

**NAOMI WHITTEL:** Isn't that great?

**SHAWN STEVENSON:** Yeah, I love that.

**NAOMI WHITTEL:** I know we're just getting ready to really sort of share it with as many women as possible because for us as women, what we look like is more important, maybe than... We connect more to our looks than maybe we should, but at the end of the day, our biology is different than yours, and so understanding like, Okay, I have to focus on my collagen fibers because they're different, or I have to understand that my testosterone is declining and that's going to impact the way that I focus or the way that I can make decisions, simple stuff like that.

**SHAWN STEVENSON:** The great thing about you, one of your superhero superpowers is you've been aware and behind the scenes for so many years, helping to get higher quality ingredients to people, you've really "hacked" the supply chain...

**NAOMI WHITTEL:** Totally.

**SHAWN STEVENSON:** In a major way, because so much is really kind of mystical in a sense, we really don't know what's happening behind the scenes when it comes to... We tend to think about in the pharmacological model and we don't know what the hell is going on, it's coming from a lab somewhere, but the same thing with our supplements, and there's regulation there, but there's a lot that's not regulated and there's so many loopholes in it. So what can we do, and just if you can talk about some things you've done to help to bring great products to people that are safe, that are done the right way, that are providing the benefits that we're really looking for.

**NAOMI WHITTEL:** 70%, 80% of us to take supplements, and now it's even more because, during COVID, there's a lot of data supporting the need for nutrients. Think about vitamin D for example. Like 90% of us are deficient in vitamin D, 90%. We need adequate levels of Vitamin D. We know that. Every single person in this country should have been given a bottle of Vitamin D and think about what that would have done for COVID and the impact that it's had on us, but... What we don't know about vitamin D is, why is it that so many of us take it? And yet, we're still deficient? What's really going on there? So when I think about supply chain, it's almost like Anthony Bourdain's Kitchen Confidential, he was like, "Okay, if you're going to go to a restaurant, you got to check out the bathroom first, 'cause then you're going to know how clean it is in the kitchen." I kind of look at supply chain within the nutraceutical and nutritional industry in the same way, and it has to be disclosed. So with Vitamin D... And this is less about supply chain, but more about understanding how to create real health with our nutrients. Vitamin D is a challenging... It's actually... It's called a vitamin, but it's actually a steroid, it's challenging to absorb, so if you can include magnesium, magnesium literally allows your body, your cells to bring in the vitamin D at a deeper level. We don't know that, right? That's so nuanced, that information is not out there. So if you're taking a handful of different vitamins, I would imagine vitamin D is on most people's list, simply understanding, okay, we've got to

get our magnesium with our vitamin D, find a combination formula or take the two together, that's how it's going to work the best. It's like with a lot of the different herbs or plants, you need to have another compound to make your body absorb it. So absorption is a really big thing for all of us when we're thinking about ingredients. The second thing that is really important for me is knowing where things are grown and how they are processed. So today, when I was getting ready to come over here, my friend was making a smoothie and he was so excited to show me the berries that he was putting in his smoothie, and I look at the bag and I'm like, "Yo, this is not USDA organic," he's like, "Oh yeah, it is."

"No, no, no, no, no, there's nothing on there that says USDA," and so we are getting tricked all the time by smart marketing. He really thought he was putting in clean berries into his body, but he was putting such a high level of toxicity because we know how strawberries are sprayed so heavily, so looking at labels and being really cognizant about the claims that are being made, is it USDA organic? Is it tested with USP laboratories? What are the testing that is done on the brand? And then just like we may have our favorite brand of clothing, and we like to sort of stick with a couple of brands, you should be that same way with your nutrition, you should find a couple of brands that you really believe in. Spend the time to do the research. So once you have a couple of brands that you like, okay, are they testing the ingredients properly? Do they tell you where the ingredients come from? Are they using... Oftentimes, you look on the back of the label and it will say Trademark. You'll see a little R with a circle around it. It's a registered trademarked ingredient. When an ingredient has been trademarked, it's so much more expensive, not necessarily to the consumer, but to buy that raw material, but what that means is that raw material is like a premium brand, that means that science has been done on that ingredient, and that's really important.

So I have a list of the 10 things to look for because I was thinking about your audience, I'm like, "What can I bring to them that's going to help them to get healthier, to be their healthiest version?" My superpower is certainly in hacking the supply chain, but then I don't want to make that a big lengthy process for you, I don't want you to have to waste your energy trying to figure out and navigate this jungle, which is totally what it is. There are so many bad players in the jungle, it's so much less regulated than pharmaceuticals, for example, it's regulated like food, low barriers to entry. We're all taking vitamins. What do we do? So I put a list of the 10

things that I look for, and maybe it's something that people can screenshot off my website or whatever, we can... Maybe I can put it in the show notes, but I just want you guys to know there are simple things to pay attention to that make a huge difference.

**SHAWN STEVENSON:** That was so awesome. We'll definitely put it for folks, a link in the show notes, for everybody to access it, and of course, we got to make sure that everybody picks up your books, books. Glow15 is a game-changer, it's created a huge shift in the way that people think about these subjects, and I love, again, when you bring new ideas to the table that are unique and also proven, the beautiful part about this is that you're going to the places and you're seeing the centuries of use of these different things and the out-picturing of that, what does that look like in people's health? And we deserve that. We've really gotten away from this lineage from our ancestors, all the stuff that they figured out, and here we are, we're trying to use clinical evidence to basically prove stuff that our ancestors knew already, which is great, we need science to affirm these things with the way that we think now, but I'm just so grateful for you to do the things that you've done. When you shared the story earlier about you're reading something about Okinawa and like, "I'm just going to go." To have the audacity to do that with all the things going on in your life is really special and I thank you for that. Can you let folks know where they can connect with you more, get more information, your website, and also where they can pick up your books?

**NAOMI WHITTEL:** Absolutely, so Shawn I am so happy and joyful to be here with you. This is so fun. I love the work that you're doing. It's so needed right now. Like I said at the beginning, there's this over-consumption of misinformation right now, it's really just not good for us, and we are an amazing, amazing country. For me, coming from Europe and getting here when I was like 12 years old, I remember getting out of the car in New York City, my grandfather was teaching at Columbia University, and everything was so big, I'm like, Oh my God, these buildings, these sidewalks... I didn't even know what an entrepreneur was, but I was like, I'm going to make... I'm going to build stuff, I'm going to make stuff here, and I didn't have the boldness to believe that I could be an inventor, but I learned quickly what an innovator was, and so I am dedicated to innovating and optimizing my health, my biology, anyone else's... And so you can find me like simply on... I have my own website, [naomiwhittel.com](http://naomiwhittel.com). I'm on social media, I love to make videos, I've made a bunch of videos pre-COVID, we kind of took a moment

there on YouTube, and so just dedicated to sharing as much as I possibly can about how to optimize our health.

**SHAWN STEVENSON:** Awesome. So and also Glow15 anywhere books are sold. Definitely mandatory in our libraries. And I appreciate you so much, really like this was very, very special and enlightening, and I can't wait to do more together, and it's so funny that this time right now is offering up such an opportunity for us to get better. But we have to connect, we have to collaborate, we have to have these discussions. And so again, we'll put all the different resources for everybody in the show notes and listen... We have to do this again.

**NAOMI WHITTEL:** I can't wait.

**SHAWN STEVENSON:** I still got questions that I didn't get to today. And again, I just really appreciate you and I appreciate all the work that you've laid out for everybody, and now many people can follow in your footsteps, so you really are a superhero thank you.

**NAOMI WHITTEL:** Thank you. It's such a pleasure to be here with you.

**SHAWN STEVENSON:** Awesome. Naomi Whittel, everybody. Thank you so much for tuning into the show today. I hope you got a lot of value out of this. Naomi is like a real life Lara Croft. She's tomb raiding out here and people have no idea, she's been behind the scenes, going to these different places, exploring and bringing back incredible gifts and insights for us, and so really, really grateful to have her on and to share her voice and her perspective, and definitely check out her work, and I'm telling you right now, we've got a lot of work to do, speaking of work, we've got a lot of work to do in front of us, but we can be joyous, we can have an amazing time, an amazing experience, but we've got to grow, we've got to get better, we've got to activate our own mental autophagy, and clean out the old and start to allow the new to be built. So we're... Again, it's on us to build this new society in a way that's healthy, that's sustainable, that's advantageous for all that's inclusive. All this work is up to us, and we have the opportunity to do it. So much is fluxed up right now, flux, F-L-U-X.

Fluxed up right now, and it's providing an opportunity because things are so much more malleable and with things in motion, we can intercept things, there's a space being created right now, there's a gap in education, there's a gap in the conversation around our health and it has to get filled with something, so it's up to us to fill it with what's real, with what's sustainable, and what's about real health. So again, we're just getting warmed up, and we've got some incredible episodes coming your way very soon, some powerful masterclasses, that are going to blow your mind. Incredible guests, some of the most renowned experts in the world on some powerful subject matters regarding all things health and wellness, and fitness so really excited about what's coming up, so make sure to stay tuned. I appreciate you so much for tuning in today. Take care, have an amazing day and I'll talk with you soon. And for more after the show, make sure to head over to [themodelhealthshow.com](http://themodelhealthshow.com). That's where you can find all of the show notes, you can find transcriptions, videos for each episode, and if you got a comment, you can leave me a comment there as well. And please make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome, and I appreciate that so much. And take care, I promise to keep giving you more powerful, empowering great content to help you transform your life. Thanks for tuning in.