



EPISODE 775

The Shocking Link Between Infertility, Blood Sugar & Metabolic Health

With Guest Kelly LeVeque

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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. Did you know that there is a vast array of satiety hormones that the human body produces right now? There is one in particular GLP 1 that is getting a lot of attention. Thanks to newly invented anti obesity and anti diabetic drugs that target that particular satiety hormone. But there are many others. Now in this episode, you're going to learn what some of these other satiety related hormones are and how they work together in a synergy to create a truly sustainable level of health. And also satiety, feeling really good about the food that we're eating and not being controlled by food. And what our special guests are going to be talking about being wrapped up in food drama. Now, she knows a thing or 20 about food and drama because a lot of her clients are people that you see on the big screen.

They're some of the most highly decorated actresses and actors and television hosts. And also her being a very prolific author and just being able to tie together her experience and also being a very grounded, wholesome, loving hand being herself. It's been able to find some pathways to help people from a very diverse set of backgrounds to find really good sustainable health, feeling good in their bodies, and also having a healthy relationship with food. So we're going to also be talking about how our blood sugar is impacting things like fertility and that information is going to be knock your socks off.

So make sure that your socks are pulled up nicely, regardless of what kind of socks you're into. You know, you've got the toe socks out there. We got the, you remember when ankle socks even hit before ankle socks, you get one flavor of sock. That's it. Ankle socks hit the game change. But then unfortunately, certain types of ankle socks find their way to slide down into your shoe. And that's pretty much one of the worst feelings ever. That's top five worst feeling is when your sock slips into your shoe. So regardless of what kind of socks you got, if you're going sockless! All good. Make sure that you are ready for this information because it's going to be enlightening, empowering, and an important level of education that the average person simply does not get, and we've got to change that. So very, very excited to share this

with you today. And before we get to our special guest, let's check out the Apple podcast review of the week.

ITUNES REVIEW: Another five star review titled "Relatable, Reliable, Pop Culture, Passionate Info" by Simonota the Great. Shawn is one of my favorite health and wellness voices. Not only does he have a cool and smooth voice that hugs your ear, he includes reliable and interesting research based on aspects of health that he is very passionate about. Coming from his own personal struggles, he is empathetic and playful and exudes an infectious resilience. I really appreciate his pop culture references as well. I don't tend to write reviews, but I was really taken by Dr. Nita. I'm excited to get her book. She is incredibly empathetic, compassionate, funny, and provided fantastic mindset, trauma, and emotional discovery tools that I look forward to using. In other words, I recommend this podcast. I'm grateful for you, Shawn.

SHAWN STEVENSON: I'm grateful for you too. Thank you so much for sharing that review over on Apple Podcast. And we'll put that episode you mentioned with Dr. Nita Bhushan. For everybody who happened to miss that episode, we'll put that for you in the show notes. So definitely check out that episode right after this one, because you are in for a real treat with Kelly Leveque. A certified holistic nutritionist, wellness expert and celebrity health coach. Kelly Leveque is also a bestselling author of multiple books. And most importantly, as she shares the mother of three amazing little boys. Kelly is passionate about the science of human nutrition, and it's always guided by a practical and optimistic approach to wellness. Kelly received her bachelor's degree from the University of Southern California and completed her postgraduate studies in clinical nutrition through UCLA and UC Berkeley. She's here on the Model Health Show to share her incredible insights. Let's dive into this conversation with the amazing Kelly Leveque.

One of the things that you talk about in your first book, which you've got a couple of amazing books, is freeing oneself from food drama. Yeah. Food drama. What does that mean?

KELLY LEVEQUE: Well, I think for a lot of young women and men, we grow up with specific body composition goals. And we're not equipped with the knowledge and understanding how to fuel ourselves, how to have great metabolic health, how to hit our body composition goals.

We just think, eat less calories, work out harder, but there's no education in junior high, high school, or college. And even when we look at physicians, the average amount of hours that a physician is required to get is 19. And Going to school to be an MD. So how can we expect our young people to have the tools to be able to take care of themselves?

And so for me, the drama comes in with not having knowledge and feeling like they get to a restaurant and they don't know what to order or they want to be healthy. So they just look up the most fad diet that's trending at the time without going a step further to understand, well, what are the foods that I'm eating? What are they breaking down in my body? And what do they do for me? And so my goal in body love was to give The average person who may not be super excited about health the keys to understanding blood sugar balance Nutrient density and how to feel their best.

SHAWN STEVENSON: Yeah, because it's a relationship truly. We have this relationship with food for our entire lives and yet we're really not taught in our culture how to healthfully interact how to have a healthy relationship with food.

KELLY LEVEQUE: Right, and I really like to meet people where they are just like you do in your books and with you know with your community is It has to be the food that you grew up with and that you love and that you want to make for your family and enjoy around a table But we can find healthy proteins. We can find healthy fats. We can make swaps. We can add produce to our plate Fiber and leafy greens that really support our microbiome and elongate our blood sugar curve. And so that's what body love is all about. It's learning how to love on your body through food, what you need, what you don't, and how to feel your best.

SHAWN STEVENSON: And one of the big parts of your work right now and the impact that you're having on so many people is helping them how to understand The impact of their blood sugar on their metabolic health. Can you talk a little bit about that and in particular your fab four? Because those walkaway points are super simple and super valuable.

KELLY LEVEQUE: Right, and that's the key is to make the science accessible to everyone, right? So when we talk about what breaks down to blood sugar, that's sugar and starch in our

carbohydrates, right? And then what doesn't break down to blood sugar and that's protein. So the fab four is protein, fat, fiber and leafy greens, and we'll go through all four. So the first one is protein. So protein is going to break down to amino acids and can have little to no effect on your blood sugar. Then we go into fat. That's your fatty acids, right? So that might be avocado, olive oil, salmon, right? Salmon is a protein, but it's coming with those omega three fats.

Those fats are going to have a little to no effect. They're going to have no effect on blood sugar and no effect on insulin, actually. And then when we get into fiber and leafy greens, I'm talking about produce here. So when we look at fiber rich vegetables, the sugar and starch is actually wrapped up in a fiber cell. So you have to chew through it. You have to digest through it. to actually allow for that glucose to hit your bloodstream and cause your blood sugar to go up. So it's naturally elongating our blood sugar curve because it takes a minute to break it down and assimilate it into our bloodstream, making your blood sugar go up and come down.

And leafy greens have such a small amount of glucose present in them. And that when I talk about leafy greens, I'm really talking about color and I'm talking about herbs and it's minuscule, but its impact on our hunger really helps. When you think about the fab four: protein, fat, fiber, and leafy greens it's a mini checklist of things that don't cause any aggressive spike on your blood sugar support the elongation of your blood sugar curve and allow for you to look at a plate and go Okay, I have you know, maybe you're having a burger I have Protein in my burger.

I have a little avocado on there for healthy fat. I'm lettuce wrapping it with tomatoes and onions and maybe I'm going to throw a side salad on there. I'm going to throw some roasted broccoli on there. I'm not talking about carbohydrates yet, right? The dense carbohydrates that would cause a spike and crash, but I'm asking you to build the foundation of your plate, with the things your body essentially needs. Essential amino acids, essential fatty acids, and all of those antioxidants and fibers and prebiotic fibers that feed your microbiome and protect you against oxidative stress. So it's like, that is the foundation to build a blood sugar

balancing plate with all the essential nutrients. And then from there, you can learn about carbohydrates and how you might have a spike and crash in blood sugar.

SHAWN STEVENSON: Now, why would blood sugar and dysregulation, abnormal blood sugar spikes, why would that be something we need to be concerned about?

KELLY LEVEQUE: Oh, so many reasons. So when we look at an elevation in glucose, that's going to cause, or blood sugar, that's going to cause an elevation in insulin. And elevated insulin levels cause an increase in inflammation. When we have an increase in inflammation, that is the gateway to chronic lifestyle diseases. Unfortunately, an increase in inflammation also decreases our body's sensitivity to hormones that make us feel full like GLP 1. All of the diabetic medications that are super popular for weight loss right now are acting on that same pathway. When in reality, if we can bring our glucose levels down and our insulin levels down, we're bringing down inflammation and we're increasing our body's sensitivity and production of our own GLP 1.

SHAWN STEVENSON: You know, when you mentioned the leafy green aspect, I wrote about this extensively prior to the popularization of all these GLP 1, agonist drugs and how green leafy vegetables incite GLP 1, right?

KELLY LEVEQUE: Exactly right.

SHAWN STEVENSON: So, it's that feeling of fullness. It's helping to slow digestion down as well and just simple things like that again. But now we're looking through this through the lens of pharmacology again, which everything has its place. But these are things that our body is naturally able to produce and in the, here's the key in the right amounts for you in the amounts that are actually appropriate for the inputs that you're giving it. And that's the key is giving it the right inputs.

KELLY LEVEQUE: You're exactly right. You know, in my books I talk about a number of hunger hormones that are affected by protein, fat, fiber, and leafy greens. And GLP 1 is one of those interesting ones where protein intake and leafy green intake were both buckets that were hit. You know, we look at other hunger hormones like cholecystokinin, for example. That is a

satiety hormone that makes us feel really good. It's, we, That's released in the presence of fat, and it's double, we can double its production when we increase our fiber. And CCK, or cholecystokinin, and protein intake together is a great regulator of our hunger.

It allows us to feel satisfied and relaxed and not think about food for hours. And when you aren't thinking about food, we don't need to gravitate towards the pantry and grab something that then would cause a spike in blood sugar, a spike in insulin, a spike in inflammation, and kind of causes this cyclical effect of we can't get our blood sugar numbers down because our inflammation is so bad. We're not getting our satiety signals, and so it's this really vicious cycle and why people are leaning on insulin. You know, diabetic medications like Ozempic because they decrease their hunger enough to not think about food, to not eat food and bring their insulin and glucose levels and inflammation down enough to get into a habit of eating blood sugar balanced meals. But I'll tell you, before this popularization, I've worked with functional MDs for a decade and we constantly were getting our patients off of diabetic medications like metformin in sometimes as little as three weeks. It's doable with food, we just need the right inputs.

SHAWN STEVENSON: Yeah, that's the key. That's the key. And also keeping in mind too, when we take this blunt instrument, you know, a GLP 1 agonist. We're looking at this in isolation. And you just shared CCK, GLP 1, there's leptin, there's a whole symphony of satiety related hormones. We're coming in with a blunt instrument as if this is going to change everything for us. What's the impact it's having on the association with all these other things that each one of these things need their own inputs To function properly right and you just shared it protein is such a huge key in this whole equation and those fibrous, you know, fruits and vegetables as well. And these are basic, like, these are basic things, but the question is, are we doing it?

KELLY LEVEQUE: Right, and that's, I mean, that's the hardest part is, these quick fixes never last as long as you want them to, and people will claim that they are longevity promoting, and All of that. But when we, when we actually look at people who eat protein, fat, fiber rich diets, they are regulating over eight of their hunger hormones. They are balancing their blood sugar. They're decreasing inflammation. They have higher fertility rates. And, you know, there

was a study out of Finland too, that even looked at insulin, high insulin levels, is a better predictor than age of dementia. I mean, we are talking about it is opening the gates. If we can't get these levels under control, we're opening the gates for chronic disease.

SHAWN STEVENSON: Now you just mentioned something that is particularly concerning right now, and I can't stress this enough, I try to talk about this every chance that I get. As of now, in a huge analysis that came out recently, total fertility rates worldwide have dropped by nearly 1 % per year, from 1960 to 2018, and this report was in the Scientific American, by the way. And we'll put that for everybody in the show notes. I'm just going to read a direct quote from the paper It said "when people hear of this there's often a natural instinct to shrug it off believing that one % per year Isn't really a big deal, but it adds up to more than 10 % per decade, and more than 50 % over 50 years." So fertility has dropped 50 % over the last 50 years and this includes Miscarriage rates have been increasing about one percent per year in the same time span one percent decrease per year in testosterone and average sperm count. And the last piece here and I've got So much data on this by the way, but I'll share one more piece: A huge meta analysis. This was published in the journal human reproduction update. They found the sperm counts have declined by 50% over the last 40 years. Something is seriously wrong. We're talking about our species being able to continue to have life here on this planet. Like this, what's more important than this? This is the most important thing and it's just happening in the background, and most people aren't aware of this unless they themselves or somebody they know. has experienced fertility issues, but this is a big, big challenge.

KELLY LEVEQUE: It's a huge challenge. And, you know, I don't take it lightly. I'm very grateful for the fact that I have had three healthy children and had, , little issues getting pregnant, but I've worked with so many women with their fertility challenges and it's heartbreaking as a mom and, and just as a woman with watching friends, clients, and, people in my community go through infertility. And there's so many issues at play. It's multifaceted, but when we look at it, we have to address a couple of things. Erectile dysfunction and polycystic ovarian syndrome are both signs of insulin resistance. And we have to address the elephant in the room that two of the number one issues with fertility in men and women are implicated by

insulin levels, blood sugar levels, A1c, which ultimately is affecting their overall inflammation in their body.

And so what we want is healthy metabolic bodies. And when we think about insulin resistance. The reason and causes of insulin resistance that are known or studied in science backed in everything from animal to human models is inflammation causes insulin resistance, chronic stress, high cortisol levels, insulin resistance, and then our diet and lifestyle. And so what I always like to encourage my clients to understand is what can they control? We can control the controllables. And one of the controllables is what we put in our mouth. I would say it's a tongue twister. It's the biggest lever we have in our fertility. And so when we look at that, when we're looking to protect fertility, we are looking to have and focus on blood sugar balance and metabolic health and nutrient density.

We know that sperm count and morphology is better when the man has a higher antioxidant. We know that CoQ10 and zinc are implicate. And when we put a man on a high antioxidant nutrient, even now there's prenatals for men and for women. So I'm an advisor for WeNatal, which is an amazing company that came out with a prenatal for men, because we know that if we can put a man on a prenatal for three months prior to conception, we can four times increase the chance of them impregnating their wife or partner.

SHAWN STEVENSON: This is so important. Like the fact that this has even been. Being talked about now because traditionally we're talking about this is not based on science. It's just based on dogma And there's like even in like game of thrones or something like that, just like she's not she hasn't given me any, any sons or she's not bearing children.

KELLY LEVEQUE: Right.

SHAWN STEVENSON: It can be you too!

KELLY LEVEQUE: Oh yeah!

SHAWN STEVENSON: You know, and so really paying attention to understand we got prenatal programs for men as well. The health of the, of the sperm how important that is we're talking about the transference of data.

KELLY LEVEQUE: Right, absolutely. It's DNA from the mom and the dad, and when we talk about miscarriages, we're most often talking about, and they're most often caused by chromosomal abnormalities, which is happening from oxidative stress. When you think about DNA damage, and you're passing down your DNA, you're talking about the damage of DNA causing a problem in conception and the body recognizing that something isn't right and having a miscarriage. So how can we protect the DNA of both the sperm and the egg? Then we have to take it back to how long does it take to fully develop an egg or fully develop sperm.

And for men, it's 72 to 74 days on average. And for women, it's, they should bank a hundred days. So we are talking very seriously about not trimester one, the trimester zero, which is three months prior to conception. You know, there was a study that just came out with alcohol intake and men and impacting their ability to get their, their partner pregnant as well. And so men, Unfortunately, there's this disconnect where they don't think that they're playing as big of a role as they are, and they most definitely are. We need them on antioxidants. We need them on omega 3s. We need them balancing their blood sugar. We need them working out and increasing those testosterone levels. And then we need them taking a break off of all of the things that are sort of those activities like smoking, drinking, uh, illegal drugs. Like, that is, it's not the time for that if you're seriously considering having children.

SHAWN STEVENSON: We've got a quick break coming up, we'll be right back. If you're anything like me, you grew up drinking Kool Aid, Flavor Aid, Gatorade, Powerade, all these different aids. No, that doesn't even sound right. But the truth is, many of us have grown up in this culture of being inundated by these crazy sugar dense products. Some of these products can have 20, 30, 40 grams of sugar. And it's not necessarily per serving, but how much we would drink of it, because I know that I drink a lot of Kool Aid. I was actually the Kool Aid chef in the house. I would take different packets of that artificial goodness, combine them together with, you know, a cup and a half of sugar per pitcher, and make that up for my

family, and that was normalized. And not only are we not getting any real nutrition along with this, we're getting a little bit of a party for the mouth, a little bit of a dance for our taste buds, but we're lacking in an opportunity to actually provide real nourishment, and today that is changing because now we can get access to truly nutrient dense juice products for our kids, for ourselves.

We're talking about things powered by acai, pomegranate and also adaptogens like cordyceps and all this is combined together in the Organifi red juice blend. Now, why is acai one of the primary ingredients of this red juice blend? Well, it has an ORAC value of 103,000. That means it has about 10 times the amount of antioxidants that other fruits have that you'll find in your produce aisle. It is packed with antioxidants. This helps to reduce inflammation, helps to nourish our friendly flora in our gut, and also helps to support our heart health, our cardiovascular system, our cognitive function, and so much more.

But the cool thing about the red juice blend is that it's backed by science. One of the other ingredients is organic beet juice. And a study published in the journal of applied physiology show that having beet juice boosts stamina up to 16 % during our exercise. So each of these ingredients has a purpose, and this blend is kid tested and parent approved. This is far different from the Kool Aids and Flavor Aids and all that stuff that we grew up with. It has real nutrition. And also, no added sugar. And the cool thing is it still tastes amazing. Kids love it. Again, kid tested, parent approved, and you're gonna love it as well.

Get this for your kids. Get this for your family, for your household. This is something that is always on our cabinet shelves. Organifi Red Juice Blend. Go to Organifi.com/model. That's O R G A N I F I .com/ model and you're going to get 20 % off their amazing organic red juice blend. And by the way, they're going to hook you up with 20 % off store wide. So again, go to [Organifi.com](https://Organifi.com/model) forward slash model for 20 % off, hook yourself up with their amazing red juice blend for your family. And now back to the show.

Now, as mentioned with infertility skyrocketing in the last few decades, this is bringing forth, and I'm going to ask you what's going on here. Something has changed or some things have changed. Obviously, as you mentioned, what we're eating plays a big part of this, but that

can't account for everything. What's changed in the last 50 years that's leading to these skyrocketing rates of infertility?

KELLY LEVEQUE: Right. So, we want to think about all the things that cause oxidative stress in our body, right? And you can only eat so many antioxidants and healthy foods to combat that stress. So oxidative stressors can be the stress of our everyday life. You know, I think about the stress of a job, the stress of a relationship, the stress of social media, the stress of endocrine disrupting chemicals, the stress of industrial seed oils. I mean, these are all inflammatory in our body, whether they're, you know, things that we're eating or coming in contact with every single day that is causing a physiological response in our body where we are needing to release or protect against those reactive oxygen species. And so I, when I am working with someone who wants to get pregnant, we are focused really seriously on lowering all of the endocrine disrupting chemicals in their house.

We're cleaning out their cleaning supplies. Their skin care, you know, looking at makeup, we're looking at getting plastic water bottles out of their life. I mean, I think it's so omnipresent, all the stressors that we're coming in contact with. It feels like a losing game of whack a mole, but in reality, it feels really good when you feel empowered and you know, okay, easy. I'm gonna swap this cleaner for that cleaner. Okay, I'm gonna get strategic about filling up a stainless steel water bottle, a glass water bottle, and eliminate plastic as much as I can. And you start to incorporate these little daily strategies and they become automatic. And so instead of feeling powerless, I want my clients and my community to feel empowered by the science and not fearful of it because the world isn't changing, right?

But there are things that you can do like you can get with your doctor prior to conception and you can get vitamin D levels. You can get iron status You can look into your thyroid hormones and your antioxidant status and your amino acid status. All of those things are going to be predictors of how healthy you are along with your metabolic markers

SHAWN STEVENSON: You just mentioned something that again, we become kind of jaded by the presence of things like plastics and this paper just came out is microplastics exposure implications for human fertility pregnancy. And this was published in the journal. *frontiers*, and

this was very recent. And what they found is that microplastics are showing up in, you know, the placenta, bilical cord. Obviously, these are affecting the development of our kids. And this particular report noted that fetal organ development was being influenced by the presence of all these plastics. Like, this isn't a joke. When you're saying, like, switching away from using plastic water bottles, like, This is ending up in your bodies and it's affecting your endocrine system and it's going to be affecting the development of your brain.

KELLY LEVEQUE: Right. And, I think what I want to stress is that science can, and these studies can be really scary for people. You know, there was a study that just came out and I'm sure you saw that, you know, with one water bottle, we're getting about a quarter of a million microplastics and that feels really overwhelming. But right there, I want. Everyone to turn that around and go, what can I do to avoid this? How can this motivate me to get a water bottle? I keep a stainless steel coffee cup in my car at all times and that's because there...

SHAWN STEVENSON: You brought one with you .

KELLY LEVEQUE: I did bring my stainless steel water bottle with me. But I will bring it because you know The lining of the inside of your coffee cup the minute something hot goes into what feels like a paper coffee cup. That plastic is leaching, and so heat really increases the amount of microplastics present as well. So, there used to be, you know, news articles that would say, Don't leave plastic water bottles in hot areas or in your car. I mean, people brushed that off back in the day. You know, a decade ago they'd say, It's no big deal. It's very serious now, but it doesn't need to be scary. You just need to have a plan.

SHAWN STEVENSON: Yeah. And the truth is, even having your water in the bottle, period, whether it's in the freezer, it doesn't matter. When the water's coming in contact with that plastic bottle, plastics photodegrade, right? Just over time, those microplastics are going to be integrating. Water's a universal solvent.

KELLY LEVEQUE: Right.

SHAWN STEVENSON: So it's going to be pulling in and leaching those compounds. But of course, we can exacerbate it if it's if it's heated up, yes, and get worse. But let's, if we can,

move away from drinking water that's bottled in plastic. This, by the way. Does this mean you can't like to have a plastic cup and fill it up with some water and drink it and everything's cool? Sure, but it's minimizing your exposure if you can.

KELLY LEVEQUE: Right.

SHAWN STEVENSON: That comes with education and understanding again We've normalized something that isn't really normal For convenience sake because plastics are pretty awesome like as far as all the stuff that they can become.

KELLY LEVEQUE: Right.

SHAWN STEVENSON: But at the same time there's no free lunch. Everything comes with a cost especially when we're talking about our food and beverages. Now you also mentioned Personal care products.

KELLY LEVEQUE: Mm hmm Right.

SHAWN STEVENSON: So there's this booming industry right now of beauty, beauty products. Ulta is like a club. You know what I mean? Like I was just driving by. There's like a little strip mall, whatever. There's a Ulta. That's the most popping business on of all these different places on in this little strip mall. And now, Thankfully, people are starting to ask questions about what is going into the makeup that a person might be using, what's going into the deodorants and the toothpaste and all these different things that. There are all these now proven endocrine disruptors, obesogens, carcinogens, and we're just not becoming aware of it.

KELLY LEVEQUE: Right. You know, what's so great is that there are amazing companies like EWG and Think Dirty. Think Dirty is a great app that you can download to your phone. You can scan the back of your beauty care products, your cleaning products, and And it lets you know which one of those are obesogens, which one of those are carcinogens, and they rank it. And you can even find the EWG verified ones. I know for a lot of women, they get used to a specific makeup, and it's very hard to make changes. But if we're doing it one by one, there's so many

amazing companies coming out that are supporting us to pull these endocrine disrupting chemicals out. You know, I think it's all about having a game plan.

And so, if you're not ready to start with makeup, but you are Okay, bringing a stainless steel water bottle, a stainless steel coffee cup, you're looking at your fats, like I think a lot of people will buy large plastic, , bottles of olive oil from like a Costco or a large box, , store because they are saving money there and I would say in certain instances it may make more sense to get these high antioxidant fat sources like olive oil In a glass bottle or an alin bottle that is dark. That's protecting the olive oil from oxidation and, , and protecting you from those plastics.

SHAWN STEVENSON: Now let's move a little bit further along the process of this amazing process of the creation of life, right? So now the baby's here. And this is something, fortunately again, there's so much education around this today.

But this was, you know, when I was a kid, there was still this kind of big push that in many instances like formula is just as good, if not better. And especially my wife being from Kenya, you know, just companies coming in and basically kind of negating the value of breast milk and saying, you know, this formula has everything your baby needs and kind of pushing that into culture.

Now, obviously, again, it's a blessing to be able to have. Access to formula and things that can keep a baby alive. They don't have access to breast milk. But let's talk about some of the benefits and importance of breast milk like what kind of As you said earlier inputs are getting exchanged between the mother and the baby as well The baby's sending data back to the mother. So let's talk a little bit about that.

KELLY LEVEQUE: Yeah, I I want to just preface this that we both agree that, , this is a personal decision for the mom and the dad and their relationship with their child and what works for their family. I feel really blessed that I've been able to breastfeed all three of my boys for 18 months, 24 months, and I'm nine months strong with my third, and I have a really good time doing it.

It's really connecting for both of us. , you know, there is It's a lot of oxytocin, that love hormone, that connection hormone, and I really appreciate it as the working parent in my family because if I'm gone, coming back and being able to do that is a really nice way for me not to have the guilt of being gone and to really connect with my boys.

Beyond that, we want to think about all the nutrient density that's being delivered via breast milk. , so not only is the baby getting all the macronutrients that that baby would need, proteins, healthy fats for brain development, , carbohydrates as an energy source and a substrate, prebiotics, probiotics, immunofactors. So what's so cool is, , if our family is fighting a virus, you know, I have a five year old and he brings home a cold to the whole family, the three year old's getting it, the nine month old is getting it. If I'm in contact with that virus too, I'm able to deliver those antibodies to help my child fight that virus.

So the duration of cold can be decreased and the intensity of symptoms can be, can go down. And what we've now realized is there's a bi directional communication between a woman's nipple and the baby's saliva, so everything from what the baby needs and nutrients is being delivered in this amazing way that is, it's just a bidirectional communication down to even skin to skin contact. So a one degree difference in the baby's temperature can be detected by the mother and immunofactors go up. So it's just, it's fascinating to me, breast milk research and, , you know, It just goes back to the fact that like everything that's quick, or fast, or convenient isn't always The best and we there's always the other side of the coin and so I would love to encourage moms Even if they need to supplement with formula later along the line to still consider feeding and not giving up on that if they feel comfortable doing it because of all of the benefits.

So there are things that we see in breast milk, like choline stays high for as long as you breastfeed. And we know that's such a critical nutrient for brain development. We can look at whatever the woman's eating. We see those nutrient levels in breast milk as well. And so I always look to make sure that the mom's having enough vitamin D, iron, and amino acids to give their baby everything that they need for, just that cognitive development. I don't know if you remember when your kids were little, you go to a pediatrician, they prick the bottom of their foot and they check their blood. They're actually checking for anemia or low iron levels.

And they're doing that because low iron levels in babies have irreversible cognitive decline. Like that is a nutrient that if it's low, Their, the impact on their IQ and cognitive development is irreversible and, and that's something we can control with our diet.

If you're, if you're following the FAB4, you're throwing some protein on your plate, you're getting those, you know, those iron rich proteins, like maybe it's bison or, or, or beef or, , and you're pairing that with the leafy greens and you're, you know that you're getting what your body needs and what your baby needs.

SHAWN STEVENSON: This is so amazing, like, we are so amazing and we deserve it. We don't get it. We're so distracted by all this stuff going out in the world. And the fact that your body will cater or the nutrient density of the breast milk will change based on your baby's needs, like that unspoken relationship that we're just, again, this is new, newly discovered information, but it makes sense. And it's been happening, whether we understand it or not. Since the beginning of man evolution, you know. And that relationship is Incredibly important and also I want to ask you about this Mentioning how important it is for the mother to have certain nutrients so that it's they're able to be catered to the baby for brain development. One of the craziest things again going to a conventional university and I was taught how bad saturated fat is for example and especially when a woman first gives birth, that breast milk is pretty high in saturated fat. It's a significant percentage of it. And it's just like, and it changes over time, but they're like gates that open the blood brain barrier, just like shuttle that to the baby's brain for brain development. And one of my, one of my good friends, Dr. Lisa Moscone neuroscientists, she shared with me that. the han brain later in life, it makes its own saturated fat. It makes its own cholesterol. It's not as necessary, but early in life, those saturated fats are very important. But again, it's going to be based on the availability from what the mother's eating.

KELLY LEVEQUE: A hundred percent . And that, I mean, I can't stress enough how much I lean into sort of an ancestral way of eating and postpart and making sure that I'm getting, uh, you know, those large cuts of red meat for me, some, I do liver, bone broth, all of the saturated fats, all of the omega 3 rich fats. We know that a baby's brain is 70 % DHA and that like choline is what is the taxi that delivers that up to the brain. And so choline is present in your

egg yolks. You know, we really... where I'm, where I'm, open with specific clients to whatever their diet and lifestyle is.

I think it's critically important when we're trying to get pregnant or when we're pregnant or if you plan to breastfeed for a long period of time that you're eating animal protein. I used to be a lot more open but the literature is just so clear in the nutrient density and how much postpartum depletion can happen after having a child, and nowadays people are having babies later. And so they're having them back to back. When I look at it, I went from, you know, like much of my friends, you have a child 18 months later, you're having another because I'm start, I started later, 35 years old and three kids before 40. I mean, it was running and gunning, but. But when we see iron levels deplete, and we know the connection to cognitive development, and all your doctor says is, why don't you take an iron supplement, and it takes six to eight months to get iron levels back up to normal, that's a red alarm for me. I'm looking for, how can I get a prescription for an iron IV? To get levels back up if you're planning to have another child.

SHAWN STEVENSON: Do you ever feel like your brain is running on low battery? Well, batteries themselves provide energy from chemical reactions that involve electrolytes. Electrolytes are minerals that carry an electric charge, and electrolytes play a major role in providing energy for your brain. Take sodium, for example. Sodium is an electrolyte that actually enables your brain to maintain proper hydration. Our brains are mostly made of water. It is so important for the form and function of our brains, but we can't maintain that hydration to do all the things that our brain does without an adequate supply of sodium.

Not only does sodium help to maintain proper water balance, a study conducted by researchers at McGill University found that sodium functions as a quote on off switch in the brain for specific neurotransmitters that support optimal function and protect the brain against nervous diseases. That's just one important electrolyte for the brain. Another critical electrolyte for your brain for providing that electrical energy for your brain is magnesium. A fascinating study published in the journal *Neuron* found that magnesium is able to restore critical brain plasticity and improve cognitive function. In a double blind, placebo controlled study published in the *Journal of Alzheimer's Disease* found that improving magnesium levels in adult test subjects who

were in an at risk population for Alzheimer's, these folks were between 50 and 70, improving magnesium levels was found to potentially reverse brain aging.

By over nine years getting a functionally and structurally younger brain electrolytes are that important. Now there's one company that has hundreds of thousands of data points for the optimal ratios of electrolytes. And that company is LMNT. Go to drinklmnt.com/model. And you're going to get hooked up with a free gift pack, a free sample pack with every single electrolyte purchase. Hook yourself with any of their electrolyte flavors, and you're going to get a free bonus pack. It's an awesome opportunity to get the very best electrolytes in the world. Without any artificial colors, without any binders and fillers, no nefarious sweeteners, anything like that. Just the highest quality electrolytes on the planet.

And by the way, LMNT is actually fueling athletes in every single professional sport. Many professional sports teams from the NHL, The NBA, especially the NFL, have now switched their teams over to utilizing Element for their team's electrolytes, even though they might have NFL contracts to have those other brands like the Gatorades, the Powerades, the Haterades, they might have contracts to have their containers on the sidelines.

But many of these teams are now utilizing LMNT. Again, go to drinklmnt.com/model. And with every electrolyte purchase, you're going to get a free sample pack. Head over there and check them out. And now back to the show.

Now this leads us to, okay, so prior to pregnancy, then we've got during pregnancy, then we've got after pregnancy. The phase of time of breastfeeding and or formula feeding postpart postpart Yeah, and then now our babies out here, you know, they're out in the world. All right, they're two three You know, they're starting to go to school, you know preschool all that kind of stuff. It's a whole different terrain now. All right, and This is something one of the most exciting things about having you here is to talk about this And I'm very passionate about this subject when it comes to Childhood nutrition, but this is something that people don't really think about the impact of our children's blood sugar on their health, right, their mental health, their physical health.

Let's talk a little bit about that. What's going on with this? Blood sugar regulation for the average child and what are some things that we can start to think about right?

KELLY LEVEQUE: Well, we want to address the fact that it is blood sugar dysregulation does affect your child's mood Their retention and their learning and their gut microbiome. It is critically important and We need to take it seriously. It also impacts their immunity. So there was a study that looked at Children who had over 25 grams of sugar a day, which can happen quite quickly if you have a junior high kid who has access to candy or they're getting something at a school or a party, their immune system's capabilities decrease by 50%.

And so sugar is decreasing immunity in our kids, and they're at school passing around germs, and if they're getting sick, they're not at school, they're not learning. And if their blood sugar is dysregulated, their retention and their ability to recall what they learn goes down by over 20%. So, we When we think that the food that we're eating isn't influencing our learning, our behavior, our mood, we need to think again because we are our kids' parents and we need to have boundaries.

Now, I also am a mom of three little kids. I know there are birthday parties. I know that sugar comes in the form of celebration and, you know, Well, for whatever reason, at school, at the parties, what I lean back on is I control the controllables. What's in my home is the things that I feel comfortable giving my kids. My kids do get dessert. I think that that is something that is important to recognize. I just look for lower sugar alternatives, more whole food alternatives, and I give them the option to choose.

SHAWN STEVENSON: I love those. Very simple tips. Yeah. You know, my, my wife, she, she loves dessert. She loves her sweets, and she's passed that on to my youngest son too, you know, they love their little things. Just making sure that we're stacking the day with high quality food, high quality proteins. You know, he's getting his, you know, fruits and vegetables in and, you know, so be it if he wants to have some kind of dessert, but we can take control of the quality a lot more today.

KELLY LEVEQUE: Right.

SHAWN STEVENSON: But here's the thing, and I want to ask you about this because the average child in America, their blood sugar isn't being taken into consideration. You know, when I went to school, you know, high school, you get, I get to school, we've got. You know, some pancakes, we've got donuts, we've got mini muffins, we've got orange juice. Those are my options and that's what I'm having every day to start my day, all right? Maybe a, maybe a bagel if I'm going to get fancy. And then going from there to lunch, I would get a personal size pizza every day, pretzel with cheese and you know, then I got football practice afterwards and usually like having like a, you know, Gatorade or something like that. And then I get home and you know, maybe I'm having, I don't know, some version of like Spaghetti Os or something like that with meat, with meatballs, Spaghetti Os with meatballs, if you want to get fancy with that too. But it's just like even thinking about how much sugar is in a can of Spaghetti Os, which I would eat at that point, I was starving. So I'd eat a family can of Spaghetti Os for dinner or sometimes my mom would cook as well. But even what she was cooking is going to be a lot of ultra processed foods are going to be involved. And when you mentioned 25 grams of sugar, like I'm thinking I could easily get in 100 grams in a day, you know, having a soda thrown in the mix or juice or something like that and not realizing how much it was impacting my energy, you know, my, my cognitive abilities, you know, and I, I did well in school, but just imagine like what I could have done.

You know what our kids could do, and so often we point to basically a dysfunction of the child, right?

KELLY LEVEQUE: Right.

SHAWN STEVENSON: It's a it's a character flaw. It's a lack of some kind of Asset that they don't have and not looking at what are the inputs that this kid is getting and it's not fair You know because it's not looking at what's happening with their biology and instead pointed to oh They have this behavior thing that they're doing Let's medicate that or diagnose them with something and we're not looking at what, what's happening with their biology, checking their blood sugar, looking at what's, when we're saying they have a quote chemical imbalance?

KELLY LEVEQUE: Right?

SHAWN STEVENSON: Are you actually looking at their chemistry? Are you running a hormone panel? Are you, no, you're just saying that.

KELLY LEVEQUE: Right.

SHAWN STEVENSON: You know, and those days are changing fortunately, but there's still a lot of work to be done. And also there are businesses that are. Structured to capitalize off the illness of our children.

KELLY LEVEQUE: I know.

SHAWN STEVENSON: Multi, multi billion dollar industries.

KELLY LEVEQUE: I know. It is soul crushing that Kellogg's is, is promoting cereal for dinner. That this is becoming the way that they, give back to their shareholders. Like that is irresponsible. , but it does start in the home and I think it starts with the parents. So my goal is always to work with the parents so that they understand how to balance their blood sugar. Cause it's very difficult to try and pull, pull, pull all the carbohydrates. When you look at all those options that you had as a kid, like it's, it's how can we work together to understand that protein, fat and fiber, you know, produce work together to. Calm the body to give it what it needs, essential amino acids, essential fatty acids, elongate your blood sugar curve so that you aren't crashing into your next meal because a spike makes us feel energized in a frenetic way and a crash makes us feel distracted and decreases our ability to learn.

So how do we elongate our child's curve? And we can do that by having protein fat and fiber first. And so maybe that's, you know scrambled eggs before you get to school getting protein and and fat and if there is you know in some places There's access to avocado and other places. There's not you know, but let's talk realistically about how could we get some fiber in the diet? You know I'm getting for parents who have a hard time buying fresh berries because you're like they're either moldy or they go bad in my fridge. And no one's eating them. Buy frozen. Like, find ways around the things that cause the fresh foods to go bad. I mean, one of

my most viral videos is teaching people how to make frozen vegetables taste like fresh roasted vegetables, and all you have to do is roast them in an oven to deep fry, dehydrate the water, then put the olive oil and seasonings on and they're crispy as can be. So there are ways around, sort of the, the struggles of putting healthy produce on the plate and you can use your freezer. But the reality is like our kids need protein to function. We all need protein to function. We need to prioritize protein because our whole body is made out of it all our neurotransmitters, all our hormones, our muscle mass. Your metabolic health is based on protein. Your muscle mass.

And if we don't have the inputs, then we're not holding on to that lean muscle mass and our kids need us. They don't need to be diagnosed. They don't need to be told there's something wrong with them. They need our support and our understanding of blood sugar balance so that we can serve up the balanced plates so they can be balanced in the classroom.

SHAWN STEVENSON: Absolutely. Absolutely. And funny enough, we just talked about the cereal for dinner phenomenon on an episode earlier than this one. , and I feel this, it's the reaction of a dying industry, right? So the profits were starting to go down during the pandemic, they skyrocketed for them. You know, there was actually one of these popular companies that produces breakfast cereal that was going bankrupt and then the pandemic happened, sales skyrocketed, but then it kind of returned back to that lull because more people are choosing real food, you know, as part of it.

And I feel that these are those last ditch efforts to try to capture. Because they're trying to make money, you know, and that's admirable for them to try to, you know, have a sustainable business. But to do that at the sacrifice of people's health. It's like, it's unethical. And, you know, with that being said, we still have a lot of work to do. We can't let up now. And what you're doing, the education you're providing, and doing this with, you know, you have a family, a growing family, and a lot of responsibility. And just making the time to share your experiences is pretty phenomenal. And if you could, You mentioned, for example, one of your most popular videos, where would people find something like that?

KELLY LEVEQUE: Yeah, you can follow along at Be Well by Kelly. , I share all about the Fab Four in my books, Body Love and Body Love Every Day. I have courses for pregnant moms. I have courses for moms who have young kids learning how to balance a plate using the Fab Four for kids. I think it's time we empower our children. I didn't learn much about nutrition until health in high school was one class, and then I was curious. So I took courses in college, but a lot of my friends never had a class that taught them anything about macronutrients, blood sugar balance. And I think instead of saying that all foods are equal, it isn't labeling or saying something is horrible for them.

We don't want to fear monger our children, but we need to empower them. With an understanding and education around, Oh, the chicken on my plate is bi protein, mom. It helps me get strong, and the berries on my plate have antioxidants. It's not blueberries, they're brain berries. Like, there's fun ways to get your kids excited and to educate them on what are nourishing, growing foods that support blood sugar balance and will help them be their best self? Because I feel like if you had more of an education at a younger age, you would have reached for maybe different things. And access and education are the two things that we need to work on as parents and as a community.

SHAWN STEVENSON: Yeah, you said it. I didn't know it mattered. You know, just flipping that switch in somebody's mind is important and also access to information and thank you so much for sharing your wisdom. Again, we've got a couple of books that are available right now. Incredible resources and also can you share your Instagram again?

KELLY LEVEQUE: It's @bewellbykelly.

SHAWN STEVENSON: Awesome. Awesome, I appreciate you so much. Thank you for taking the time. You know, I know you had to do a few things just to, you know, even be able to sit here with me because you have a, you know, young, young baby still.

KELLY LEVEQUE: Just pumping in the car.

SHAWN STEVENSON: Just saying, She's pumping in the car sitting here with us. So I really do appreciate it. And you know this has been really fun. Thank you so much.

KELLY LEVEQUE: Thank you.

SHAWN STEVENSON: Awesome. Thank you so much for tuning into this episode. I hope that you got a lot of value out of this. It's one of the things that we have a relationship with before we even become conscious. It's such an important part of our reality.

And yet we're not taught in our culture. Matter of fact, we're kind of guided to have a dysfunctional relationship with food, but getting information like this, understanding. How food is actually impacting things like our blood sugar and our hormone health and things like fertility the health of our children It starts to stack conditions to really understand how important it is to get educated on this subject matter. How much food really does impact our reality? And so again, definitely check Kelly's workout and follow her on Instagram Matter of fact take a screenshot of this episode and tag her and tag me on Instagram. I know she would love to see that. Love to see the love. So take a screenshot, share this on your IG story. I'm going to be checking in as well.

And you know, I really do appreciate you being a part of this mission. It really does mean everything to me. And we've got some epic masterclasses and world class guests coming away very soon. So make sure to stay tuned, take care, have an amazing day. And I'll talk with you soon. And for more after the show, make sure to head over to the model health show.com. That's where you can find all of the show notes. You can find transcriptions, videos for each episode. And if you've got a comment, you can leave me a comment there as well. And please make sure to head over to iTunes and leave us a rating to let everybody know that 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.