

Dispelling the Confusion Surrounding Bioenergetic Medicine

**A Special Interview With Ashley Armstrong
By Dr. Joseph Mercola**

Dr. Joseph Mercola:

Welcome everyone, Dr. Mercola, helping you take control of your health. And you are in for a real treat today.

We have Ashley Armstrong back, and she's been on a few times before, as a result, and she writes articles for us pretty much once a week. She's been a strong advocate of Dr. Ray Peat, the late Dr. Peat, and it literally transformed and changed her life. And she's going to share some of that story with you today.

And because this is such a radical difference in what I was previously teaching, and many people are still teaching today, there's a lot of confusion about this. So, I talked to Ashley this morning, or actually, this afternoon on my end, and I did it on my beach walk, which I love to do from 12:30 to 1:30, solar noon. And we had a delightful conversation.

And she gave me some ideas to discuss. I think it'd be really good. But she's also let me know that — because she's been on for a while, she's gotten a lot of emails from many of our new subscribers. And I didn't realize it, but there's a lot of confusion out there. So, we're going to attempt to address that confusion today, and hopefully that will provide some information that [will] inspire you to consider making some changes, if you haven't already.

Because what we have stumbled upon might be the best way to do it. I don't know if there's a more accurate way than that and it's true. I've interviewed Dr. Tom Seyfried in the past who wrote the book, "The Metabolic Theory of Cancer."

And fortunately, most of it's good, except his treatment, it doesn't work, because he recommends low-carb, and low-carb will kill you prematurely. Why? Because it does not give your body the fuel, you cannot make the maximum cellular energy, and we'll go into this deeply.

And I know I'm hogging the platform because we've got such a wonderful guest here, who's going to just delight you to no end. But I think, I don't know, where do we start, Ashley? There's so many places, but I'm thinking-

Ashley Armstrong:

I got a great starting place.

Dr. Joseph Mercola:

Okay, perfect. Perfect. Go ahead. Go for it.

Ashley Armstrong:

Health is too complicated for people these days-

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

-And I think it's because social media, it's like a blessing and a curse, but it also introduces so much noise. And so, people are bombarded with all of this conflicting information. And we know two things. The first thing, people are sick, people are unwell. And the second thing is people are confused. But health shouldn't be hard. Right?

Our biology was designed to thrive in health conditions. And if it was hard to be healthy, we wouldn't be where we are today, right? Health shouldn't be this complicated, it shouldn't be hard. So, I really view my purpose in the health space is to kind of de-complicate things, like take a step back and make people reflect like, "Do these things actually make sense?"

You don't need to go plunge into cold ice water baths every single day to get optimal health. That doesn't make any sense. If you just take a step back, we don't have to go to these extremes to achieve health. And that's where people are today. They're unwell. I understand people are not doing well. People are overweight. There are many things working against us. The food system is working against us. Our environment is working against us, that's for sure.

But in pursuit of health, people are often drawn towards extremes because people promise quick fixes. And I understand the idea of a quick fix is very enticing. But we have to understand that quick fixes often come with long-term consequences, right? So, if something in the short-term may feel really great because it may suppress a symptom, if we aren't being in tune with our health, that could come with long-term consequences.

And this is where we see a lot of people today, they may have made a dietary switch that — working away from the standard American diet is always a great first step, but if we aren't in tune with metabolic markers, we could be going down the wrong path. And so, I think, I would love to talk about how health can be a little bit more simple if we just make sure that we're not doing these extreme dietary things.

And I believe both of us have been on our own journey of discovering what true optimal health is. And I think it's a very natural path to go down. And so, I think that could be a fun place to talk about is, 10, 15 years ago, what you thought health was, and the realization that you came towards today in that journey to get there, I honestly think it would be fun to ask you that question. And I can share my part of the story too. But Dr. Mercola, what has been your biggest realization in terms of what true health is?

Dr. Joseph Mercola:

Well it's the new focus of my new book, cellular health, which we are both in agreement with. I think actually the vast majority of honest, truth-seeking physicians are, and if they studied molecular biology there's no other rational conclusion, is that the ability to create cellular energy,

typically in the form of mitochondria, because you could also make it in the cytoplasm, it's not as efficient. And that's actually the metabolism of a cancer cell, actually.

So, the ability to create as much cellular energy as you need is the key to health, that will reverse, essentially cure, certainly, every chronic degenerative disease, it is the true cure for cancer. It's not the deceptive cure that Dr. Seyfried has stumbled upon. And hopefully we can inspire him, but he's pretty stuck in his ways, as many people are, as I was. And I've studied people, I've interviewed Dr. Seyfried many times, and many others who still believe in the low-carb approach.

And it's understandable. I mean, I fell for that for many, many years, and so did you, and you'll share your journey. But glucose is unfairly villainized or demonized because it happens to be the innocent bystander. It's very similar to a fire, and there's firemen that come to put it out, and the fire, why would you blame the firemen for causing the fire? No, no. They just happen to be there through the solution, the answer, the social answer. They're not arsonists, right?

So, they didn't cause it. It's similar, glucose doesn't cause it, it's left over when your cellular energy production is damaged, and potentially destroyed, almost, at least in an individual mitochondrial basis. So, that's what's left over. So, I think the big thing that both of us went through is just realizing, we're seeking — we weren't confused by Big Pharma or industrial agriculture about what the truth was. We knew what it was, but the details we didn't understand, and that we trusted experts rather than ourselves, that low-carbs was the way to go. I mean, you want to get sugar down as low as possible, get those AGEs, advanced glycation end products, you don't want those sugar spikes and nothing, don't even think about it.

Ashley Armstrong:

PUFAs (polyunsaturated fatty acids) cause advanced glycation end products 23 times more than glucose does.

Dr. Joseph Mercola:

I remember, I listened to Dr. Ray Peat's newsletter. "How could you listen to it?" Well, I listened to his letter, and I let my phone read it to me. I shared it with you this morning, did you get a chance to try that yet?

Ashley Armstrong:

Nope, not yet. That's my — during evening farm chores, I will be tuning into that.

Dr. Joseph Mercola:

Okay. Yeah. So, if you don't know by now, you can use your iPhone. It's under Accessibility in Settings. Android probably has something similar, but I don't have an Android. So, you go to Settings, Accessibility, and there's Spoken Content. And if you play with that, and maybe even ask ChatGPT on how to do it, they'll teach you. You can have your iPhone read pretty much any document to you. It'll read you a whole book, in about 50 different dialects, or even languages. So, it's pretty cool. But I don't know why I went down that road. I forgot, where was I at before?

Ashley Armstrong:

Your book. Well, and advanced glycation end products.

Dr. Joseph Mercola:

Oh, yeah, yeah, yeah, that's why I went down there, it's because I was listening to Ray Peat. And I listened to that section like a dozen times because it was some article I was really fascinated with, and I heard him say that 23 times. I could almost remember the reference he used to cite that, but that astounded me the first time I heard it.

Yes, they're 23 times more likely to damage, to cause the bonding of glucose to proteins, which is an advanced glycation end product, which damages the protein, it doesn't make them functional. So, really the PUFAs are. And I think the other component is that most every physician who's interested in health understands that processed foods are not good for you.

There's very few people who, they may implement it, but they understand that eating whole foods is the way to go. But what they don't understand, even if they believe that, is that they think the sugar is the culprit when it's actually the seed oils. So, there's three things that I've learned, what makes you healthy is, there's three things. One is the seed oils, eliminate, and completely, and that's just not seed oils, that's seeds and nuts, all nuts.

I've changed my position on this, folks. That includes macadamia nuts. I used to have 10 pounds every six weeks or so. I have zero now, I'm at zero. And that's because oleic acid is not as bad as linoleic acid. That's the primary fat in macadamia nuts, and also in olive oil. But it's close, it's pretty close. And it causes other complications, because it's got an unsaturated fat, it's got a double bond, which is not good. Linoleic acid is twice as bad because there's two double bonds.

And then we're talking to another area, which is the polyunsaturated fats, which would be fish oils, which have three double bonds, or four depending on which fatty acid you're referring to, EPA or DHA. So, the more double bonds, the more potentially problematic it is. Now it doesn't mean you should never have zero, but you certainly don't want to have excess of this. Having a high omega-3 index is not necessarily a good thing for your health.

So, I think that's a good summary I made. You're the guest, I want to have you share your story because it's really powerful, really, really powerful. And so why don't you share that, we'll maybe dialog again, but then I want you to pivot into, you're going to tell how integrated this into your life changed it. And then pivot into what you did to share your passion, to tell the world, to scream at the world what the answer was, or is. It's available, you have it.

Ashley Armstrong:

So, to tie in, Dr. Mercola's interview from last week with Gary Vee (Gary Vaynerchuk). Gary Vee is someone that has really inspired me, and he always discusses how someone who is really aligned with what they're supposed to do, what they were meant to do in this world, for someone who is in that role, they're obsessed with sharing their truth. It's just something you can't explain why. And I know that Dr. Mercola has this.

That's why we like to share this information because we're so aligned with it, and we need to

share what we find is fascinating. What we find is correct. And even if one changes their opinion on something, they share that they — “Oh, that was incorrect.” What is the correct word? Not misaligned. You like to correct me when I say misaligned.

Dr. Joseph Mercola:

Inaccurate. Oh, no, misaligned. Yeah, no, what you typically say is unguided.

Ashley Armstrong:

Unguided.

Dr. Joseph Mercola:

No, but you say misguided. You say misguided, and I said that's not accurate. The accurate one is unguided.

Ashley Armstrong:

Unguided.

Dr. Joseph Mercola:

They're not guided, because the guides don't make mistakes. Your guides, your intuition, your gut feeling. It's never wrong. Your gut feeling is never wrong. Never.

Ashley Armstrong:

Yeah. And it's really hard, in the current health space, honestly, I think that the current health space is very toxic in a number of ways. It promotes a lot of restriction, fear-based things. And in this space, it's very hard to be aligned with your guts and guided with these truths. And so instead you follow blindly. You blindly follow the steps of some random influencers on the internet, right? I did that. I did that for a long period of time because I was desperate. I was sick, I was unwell, and I needed — I wanted to change things.

And so, enter the health space, Googling things. Actually, I can thank my sister for waking us up to this. But we got down into the carnivore path, the fasting path, the continuous restriction path, whereas soon as something stopped working, it's, "Oh, you're not restricting enough. You got to restrict more and more." And then at a certain point you can't restrict any lower, you can't go below 5 grams of carbs a day. So, what's your next step? Fasting more.

It was so hard, these variables were so hard because then you get into this, "Oh, if you eat too much protein, you're going to bump yourself out of ketosis. But if you don't eat enough protein, you're going to be eating your muscles through gluconeogenesis." So, balancing the fats-to-protein ratio's all just — so, I was unguided at the time, and was looking for help, because I was not in a good health state, and eventually went down the keto/carnivore/fasting path.

And then I can thank my sister, Sarah, for waking us up to this. She said, "Ashley, let's measure our body temperature today." I was like, "This is weird. Why would you ever do that?" Even though when you look back at old-school medical textbooks, body temperature was used as a sign of health for so long, and that tradition has been lost. And so, we measured our body

temperature, and my thermometer said 96.3 degrees Fahrenheit.

And we realized it should say 98.6. And I was like, "Wow, that's pretty low." So, that was the first time that I woke up to the idea of metabolism, as a way to objectively measure whether or not health is moving forward, or if we're going backwards. Because symptom suppression, lowering metabolic rate. Lowering metabolic rate is a survival mechanism for a human, because when energy reserves are low, when we don't have the proper amount of micronutrients, it's the body's way of making sure that we're going to stay alive.

Because if it were to push metabolism when we're in a restricted state, you would die. You wouldn't have enough energy, you wouldn't have enough reserve. And so, think about when a squirrel goes into hibernation, it's not advantageous for that squirrel to have a high metabolic rate while it's trying to hibernate over the winter months. It would literally die because it would run out of resources. And so, when my body was in that very low metabolic state, low-body-temperature state, it was literally screaming, surviving, not thriving.

And so that was my wake-up moment to the first time when it was, I realized that metabolism is a way to gauge your health, not these random dietary rules that someone on the internet was telling me to do. And so, a famous quote by Dr. Ray Peat is, "The main goal is to keep the metabolic rate up, and there are many ways to do it." And I love that, because there's not a single, exact path to get the metabolic rate up. But the most important thing is that you do.

What Dr. Mercola eats every day is different than what I eat every day. There's different things. We all have different gut health, we all have different sun exposure, but utilizing simple metabolic markers, it frees you up. It's so much more simpler to use body temperature measurements as a way to assess metabolic health, rather than, "I stayed below 10 grams of carbohydrates today. Yes." Or, "Oh, my intermittent fasting timer just went off, I can eat now."

These are arbitrary rules. Your great-great grandma would laugh at you. She really would. Because health back then was so much simpler. There was food tradition, knowledge was passed down from one generation to the next. They weren't bombarded with PUFAs. And so, it's just been so freeing. I think learning about metabolism, it makes eating so much more pleasurable and enjoyable because you can eat so much food. I have sourdough bread every single day. I have dark chocolate, orange juice, fruit, on top of dairy and meat and all these things. And so, that's why I'm so-

Dr. Joseph Mercola:

And cheese.

Ashley Armstrong:

And cheese. I love cheese. I think that that's why I'm so passionate about this is because as soon as you — it's a way of viewing health. It's a completely different lens. It's when you view health as metabolism-focused, you get rid of these silly dogma things. It's so much more fulfilling. And that's why I like to talk about it, because I don't want people living in this restrictive path.

It's not a fun way to live, and you don't have to do these restrictive things. And so, my sister and

I, Sarah, got so obsessed with this. We got so obsessed, so much so that we spent two years developing a course because we just wanted to scream it from the rooftops about, like I went from being a full carnivore, eating just brown things, just brown things, all meat all day long, into now being able to enjoy such a wider variety of foods, and not feel bad about it or guilty, and see my health improve in that process. So freeing.

And so, my sister and I, we made a course called “Rooted in Resilience,” and it's basically our health experience. We did a decade of very restrictive dietary choices, like keto/carnivore/ fasting, even vegan, plant-based, we've been there. I get it. If someone's trying to tell me, intermittent fasting, the benefits, I get it. I understand. I went down that path, too.

And so, all of our decades of restrictive dietary stuff, and then our two years of really dying into Dr. Ray Peat's work, metabolism focus, bringing in information from Brad Marshall in starch, the importance of including dietary starch, and helping someone reframe their mindset on metabolism first, not dietary rules. That's what we created. And so, it's been a lot of hours, a lot of hours, but-

Dr. Joseph Mercola:

How many hours would you think, a guess?

Ashley Armstrong:

I get really obsessed about these things, and I would say, oh gosh, thousands. It's been more work than my Ph.D., I would say. But when you are so passionate about something, you don't care how many hours it takes because it's truly enjoyable for you. It's joy.

Dr. Joseph Mercola:

Yeah, it's joy. Right.

Ashley Armstrong:

And to help, like another thing is when I was really young, I didn't eat enough calories for myself. And this is something that I — it's probably one of my biggest life regrets, is not eating enough calories in such an important adolescent stage. And I really want to help the next generation of women understand that if you restrict calories for a long period of time and overwork yourself, you are going to hurt your health.

And it's hard because in the current modern times, there's so much focus on being so lean and so thin. And I get it, you want to fit in, you want to look a certain way. But I think that I could have avoided all of my health problems, all the health problems I dealt with in my early 20s, I think that those all could have been avoided if I just ate enough when I was a really young athlete, and didn't push myself to extremes.

And I see this now with a lot of women who go through our course, they are eating like 1,500, 1,600 calories, while pushing themselves to the extreme, putting themselves in a huge deficit. The body, it's going to downregulate certain tasks in order to make sure that you stay alive. And so, I think that's something that I'm the most passionate about is, health doesn't need to involve

these extremes. And when you change your mindset on what true health is, it makes health easier.

Dr. Joseph Mercola:

Yeah. So, thank you for sharing that journey of yours. So, I'm just curious, with respect to your course, you've had it for what, a year or two now?

Ashley Armstrong:

Yep, end of 2022. Yeah. So, it's 2024 now. Yeah.

Dr. Joseph Mercola:

So, almost a little short of two years. So, you've helped a lot of people with it. And as far as I know, there's nothing else out there like this course. I mean, there should be, in my view, it really is the foundation for a natural medical doctor. One of the reasons my website did so well is because I'm passionate about technology in addition to health. I took my first program class in 1968. It's a long time ago. I was actually programming, the lines of code were written on punch cards, IBM punch cards. That was when we did not — you made a mistake you had to retype it out.

Ashley Armstrong:

Did you use Fortran?

Dr. Joseph Mercola:

Fortran was my first, well, then I learned COBOL. Yeah.

Ashley Armstrong:

I took Fortran in college, and it was the worst class ever. I was like, "I don't understand why-"

Dr. Joseph Mercola:

I loved it. I loved it.

Ashley Armstrong:

I was so bad. I was so bad.

Dr. Joseph Mercola:

You were so bad? It's just simple logic. It's all it is, it's like the philosophy of logic essentially.

Ashley Armstrong:

Yeah, yeah.

Dr. Joseph Mercola:

And now coding is so much easier, you basically can talk into your computer and it'll code it for you. If you know the logic, which is you don't have to know this complex codes, you're off by

one space or a period. It doesn't work, which is, that's nonsense. That's what the LLMs are for. But anyway, we've taken the next level, of course, is AI, and we can take this material that Ashley's compiled, and I have learned-

Ashley Armstrong:

And Sarah.

Dr. Joseph Mercola:

And Sarah, sorry. Yeah. The strong sisters, they both compiled. And Sarah played a pivotal role in your finding this. It probably wouldn't be there if it wasn't for your sister.

Ashley Armstrong:

Well, it's a wonderful balance, because I am so obsessed with the literature. I love reading through scientific articles and really understanding the mechanisms. And then Sarah is like, "Ashley, hold on. You got to make it practical for people."

Dr. Joseph Mercola:

Yeah, yeah, yeah, yeah.

Ashley Armstrong:

And Sarah's that balance that helps add the practicality piece. And she's helped open my eyes up, and that's why I sometimes challenge you, I'm like, "Dr. Mercola, what middle-aged woman is going to crack open six eggs and throw away all the egg whites and just eat the egg yolks?" So, it's about balancing, because health shouldn't be hard, right? And so, she's played a very pivotal role. Yeah.

Dr. Joseph Mercola:

Yeah. Because we both tend to go into OCD (obsessive-compulsive disorder), if you want to do something you want to do as best as possible. And interestingly, you're the person who helped convince me that cheese wasn't an issue for me. Well, at least the right type of cheese. This is not well known, there's not many people know it, and we did an article on it, actually I think it was your article about-

Because you're the one who told me, and it is not well known that the vast majority of cheeses you should not eat. They're relatively toxic, only because they created the cheese, catalyzed this formation with a synthetic enzyme, rennet, R-E-N-N-E-T, and synthetic rennet. And they greenwash it by calling it plant-based, when it's not.

Ashley Armstrong:

Yeah, yeah. Vegetarian.

Dr. Joseph Mercola:

Vegetarian. That's another greenwashing, vegetarian. Technically it's accurate, but it's deceptive and fraudulent, like much of industrial agriculture and in food production. But [it's] interesting that cheese has far more tryptophan than the eggs, egg whites. But it doesn't matter because it

depends on the matrix of the proteins that you're getting, and the matrix in the cheese, it's such that it has a selection of amino acids, it limits the absorption of the tryptophan, so you don't get as much. It practically nullifies it, because tryptophan in excess is not good. It increases serotonin, and serotonin is not your friend. I mean, you need some, but almost everyone gets more than they need.

Ashley Armstrong:

Yeah. Well, and the calcium in the cheese also reduces the tryptophan absorption.

Dr. Joseph Mercola:

Yeah, the calcium, and the calcium is good for binding the phosphate, which is another poison that we have. I mean you need some because otherwise how could you make ATP (adenosine triphosphate)? But if you have too much phosphate, it is not good. It definitely prematurely kills you, for sure. So, the calcium helps bind that.

Ashley Armstrong:

Yeah, yeah.

Dr. Joseph Mercola:

Your course is now currently available, it has been available for a while, and we've promoted it a few times.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

And if you have any interest in learning health, and applying it to yourself, there couldn't be a better investment, because it really — I mean, this is in my view, realistically, if you had some basic science courses like anatomy, nutritional biochemistry, molecular biology, physiology, if you had those courses you understand the way biology works.

If you took this information, basically you become a natural medical doctor. You could probably, with this information, improve the health of 80% of the people you knew, really quickly. And included in that, pretty much any disease, with the exception of really bad diseases like cancer where the patient has made the unfortunate choice to choose chemotherapy, because that's another poison that is, essentially, it's an almost insurmountable poison.

It's a premature, not premature, but it's a suicide pill. Yeah, it might extend you a few months or maybe even a few years, but not every time, but almost all the time. And it makes it almost impossible to help a cancer patient recover if they've already committed themselves to the chemo choice, which is sad because the whole system is designed to create fear to move people in that direction. And of course, obviously there's a lot of financial incentive around chemotherapy. So, go ahead.

Ashley Armstrong:

Yeah. Now, I don't want to discredit, I feel like people could be upset if I say health shouldn't be hard. I don't want to discredit the fact that given it's 2024, it's a little bit harder to be healthy, relative to like, 1900.

Dr. Joseph Mercola:

That's an understatement.

Ashley Armstrong:

Of course. But if we stress out about these things, it's just going to make our health worse.

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

And it's something that's important to know is, whatever's being put in the air, in the sky, in the clouds, whatever that's out of our control right now. But something that is important to know is the better your metabolism, the healthier your liver is, and the better your body can detox. So, all these people looking for quick things to detox, like, "I'm going to do a one-month detox thing." Truly the best way to do that is to have a healthy metabolism where your liver can help you do that.

And I know it's scary, but some things like that are out of our control. Of course, the food system is severely messed up, and that's why I think finding a source that you can trust, support them as much as you can. Find a source that is producing food, how it was supposed to be produced back in the day. I think that food sourcing is important. Of course, doing the best that you can, given your environment in your home, is important. But when it comes to dietary rules, humans overcomplicate things. We do. Yeah.

Dr. Joseph Mercola:

So, that's part of it, a big part of the equation.

Ashley Armstrong:

Is that your dog?

Dr. Joseph Mercola:

Yeah, he's trying to dry off. He just came out of the — he just jumped in the pond.

Ashley Armstrong:

A quick pause, his dog, Joy, is about to get a girlfriend from our farm. Our guard dog, Josie, just gave birth. And so, his dog, Joy, will have a girlfriend soon. So, then maybe he won't get bored.

Dr. Joseph Mercola:

Yeah. He's a puppy. He's only six months old, but he's 70 pounds, so he's a big guy. I've been studying health for five decades. Five decades, I've been studying health. More than that, probably 55 years since I first started exercising in 1968. It was when I took my first computer class, the same year.

And there was nothing that comes, I've been on this journey for a long time, made a lot of mistakes, a lot of things I did was right, but a lot of them were mistakes. And they were well-intentioned. Well, I remember, I should mention one mistake that I learned this weekend, I figured it out, and it's a reflection of my understanding of the biology of the microbiome, which is much, much, much more important than I ever believed possible. It's really the core of health, and one of the reasons why we get sick.

So, what I realized, and I shared this with you earlier, is that rectal ozone, which is commonly promoted among alternative medical physicians, and hyperbaric, which is even more commonly promoted, are no bueno. They're no good. They may cause some short-term benefit, like fasting does and low-carb and carnivore. And why don't you discuss, we'll take a tangent on this, and I think most everyone experiences benefit when they start this, and there's a reason for that. Why don't you explain that?

Ashley Armstrong:

So, we had a great conversation with Georgi Dinkov last week. And the way we were talking about it, the whole metabolism was, the body needs to make energy. So, it has an end destination, it's got to make energy. The body has a seven-lane highway to get there. It's got a bunch of different pathways. Obviously, the fast pathway, that's where you want to go, because you can make the most amount of energy the quickest, but there can be accidents or blockades. So, then the body has to resort to the next lane, "Oh, that one gets closed. Oh, it goes to the next one."

And so, there's an ideal way of making energy, and then there are backup ways, because your body has to make energy, it has to. And so of course, biology is going to be designed to have backup systems. So, let's say that your body was trying to go down this lane and there's a block, you're not going to feel good. As soon as your body learns about this second lane, you'll feel better, because you're able to make energy again, because you removed, you got past that barrier, but it's not optimal because you're not on that lane, right?

And so, thinking back to why I felt unwell before going down these more restrictive pathways, I was eating a very high-PUFA diet, very high PUFA, margarine instead of butter, a ton of nuts and seeds. That's what was thought to be the best. A ton of conventional chicken. Dairy alternatives, so like, nut milk, oat milk, nut cheeses, weird stuff. So that high-PUFA diet was blocking my ability to utilize glucose well.

So, when I removed glucose and removed all those high-PUFA sources, I then was able to make energy again, but down a different pathway. And it felt good for a period of time because it was blocking — I was able to make energy again, but in a more compromised way. And it felt good until I kind of ran out of fuel going down that way. But along those same lines, gut health can be a huge barrier there, because if your gut is not — if you have a sluggish, slow gut, which is

caused by low metabolic rate, because the digestive system requires a ton of energy to operate well, you should be pooping one to three times a day.

If you have a slow gut, food is going to sit inside your gut, it's going to be a great place for bacteria overgrowths. The body has a design to get rid of all of that, right? The body is perfectly orchestrated to have all these systems in place, like bile, and then the MMC (migrating motor complex), which contracts and gets rid of all the — so, there's so many wonderful systems in the gut, but it has to have adequate energy to do that. And so, if you're in a low metabolic state or you're bombarding yourself with PUFAs, the gut is going to be downregulated a little bit.

And so then if you go to a more carnivore- and keto-based where you're not introducing a whole bunch of fiber and stuff into your gut that is going to sit there and ferment, of course you're going to feel better. Why wouldn't you? Because then nothing is just sitting in there, and being a breeding ground for pathogenic bacteria. So you have to then put on your metabolism lens and think is the answer to — it's kind of like you have a leg pain, and you skip leg day because your leg hurts.

Of course you feel fine because you're not aggravating the leg, but don't you want strong legs? Don't you want to be able to go to the gym and lift your — build your leg muscles? So, I kind of viewed the path that I went down was more restrictive in avoiding things that didn't feel good. So it's like skipping leg day. And so, gut health is a really intricate part of this, and I think that the reason that I felt so good was because I removed all those problematic foods that were causing gut problems for me. And of course, you're going to feel better.

Dr. Joseph Mercola:

Yeah. Well, and those problematic foods also feed the pathogenic bacteria, and we actually understand what type of bacteria pathogenic now. These are bacteria that thrive, that tolerate oxygen. They're called facultative anaerobes. Those are the ones that cause disease. When you restrict the carbs, low-carb or fasting, even more significant, you're not feeding those bacteria. So, there's less endotoxin produced. And endotoxin is one of four items that destroy your mitochondrial function. It's endotoxin.

The first one was linoleic acid. Absolutely. That was industrially produced poison about the 1870s, 1880s. And then came estrogen. And at about the same time came plastic, which are similar, they're two different molecules, but biochemically, they're almost identical because there's chemicals in plastics, like the phthalates in BPA (Bisphenol A) that are xenoestrogens, that hit the same receptors that estrogen does. So that's another thing that destroys mitochondrial function.

And then finally the last one was EMF (electromagnetic fields). So, all those things destroy your gut because you don't have enough energy. When you decrease your energy, you need energy to make that differential, to exclude oxygen from your large intestine. And because normally there are primordial bacteria that live there, and they were evolved in an environment in earth when there was no oxygen, no oxygen at all. So, when they get exposed to [a] molecule of oxygen, they have no defense and they die. They're like dead instantly almost.

And they get replaced by these other guys, which — they both produce endotoxin. But the endotoxin from the ones who can tolerate oxygen is a lot more challenging and toxic. There's another word for it, I forget it, it begins with a V. I can't recall it at this point, but it causes more damage. So, when you lower the carbs and go fasting, then you're not going to nourish those. But if you had healthy bacteria, it's a totally different story.

Then that's what, we talked about Brad Marshall and the starch. And you have to be careful, because starch can be highly problematic for many people. If you have a load that's imbalanced microbiome, you have to be really careful and you have to do it. And that's where your book and your course comes in because you identify those. One of the rules for being successful in business is not so much what you do, it's when you do it. It's the sequence. So, it's all about the timing. And if you don't have that timing, you may be doing the right things but at the wrong time, and that's going to be highly problematic.

And you'll get worse. You will not get better, even though you're doing healthy things, it's the wrong time. Your body can't tolerate it yet. So maybe you can expand on that, because that is a key to knowing the path to success. It's not just knowing the starch is healthy, which you said is accurate. If you're healthy, it's one of the healthiest foods on the planet, much healthier than fruit. And I just learned that recently from Brad Marshall's work, that you helped me understand.

Ashley Armstrong:

So, in a well-functioning gut, we've got a really nice lining, gut lining barrier, where it has selective permeability. It also, inside the gut, has high levels of CO₂ and low levels of oxygen. And so, I think it's important for people to understand that the levels of gases inside your gut will change your microbiome balance. And so, internal environment impacts function. Internal environment is impacted by systemic energy production.

And so, you have to have systemic energy production to have the right function. And so, you see all these people trying to exactly manipulate their microbiome, but if you don't change the internal environment, it's just going to go straight back to what it was before, or it's going to require you to continuously do these things over and over and over again, rather than fixing the root cause.

And so, in someone that has a low metabolic state, high-oxygen gut, leaky gut, food particles that aren't broken down can leak through the gut lining and cause a lot of systemic problems, for sure, gut distress, inflammation, endotoxemia and that's not going to feel well. And so, for people in a very low metabolic state with a lot of gut problems, you got to be careful about what food you are consuming until you heal and seal your gut, until you fix your metabolism.

And so, I think that gauging, eating the foods that cause the least amount of problems, but making sure that you're eating enough of those so that way you're not eating 1,200, 1,300, 1,400 calories, you're not going to fix your metabolism if you're chronically eating low-calorie, you're just not. The body is recognizing, "It's a time of scarcity, I need to downregulate metabolism to make it through the winter." That's just what your body is thinking.

So, the amount of food you eat is important. And so, finding what foods you tolerate, and eating as much as you can of those, while working on improving your metabolism, over time you'll be

able to regain function. And so just being in tune with what foods are doing well for you right now. For example, for whatever reason, Dr. Mercola, I still don't do well with oats. I don't mind oats, but I just know I don't do well with them.

Dr. Joseph Mercola:

Yeah. So listen to your body.

Ashley Armstrong:

And so, I don't eat them every single day. But sourdough bread, potatoes, marmalade, orange juice, fruits, I have a group of foods that I do really well with, and of course I'm going to eat a lot of those. And so, I think being in tune with what works for you right now, and understanding that as long as we're working in parallel with improving our body temperature and pulse measurements and boosting our metabolism, you should be able to tolerate more and more food over time.

Because in this ideal gut, you've got strong gut lining, you've got a high CO₂, you've got a high amount of these good bacteria. And so not many people are talking about it, but there's actually a lot of recent literature coming out about these obligate anaerobic bacteria. So, these are the good guys, and they can't survive in high-oxygen guts, but most people have high-

Dr. Joseph Mercola:

Not even high, even low oxygen.

Ashley Armstrong:

Yeah, they don't do well.

Dr. Joseph Mercola:

Almost any oxygen, you're dead. Yeah.

Ashley Armstrong:

So, then you can kind of understand for someone that has a leaky gut, there's a lot of oxygen coming in. And these bacteria, when you have high amounts of these, they're doing very good things for us. They're taking that fiber, and they're creating short-chain fatty acids like butyrate for us, which then further feed — it serves as a fuel source for gut lining cells. And so, these bacteria can help us, like when we have the right amounts of these bacteria, we can eat a wider variety of food because they're going to help us properly break things down.

Dr. Joseph Mercola:

Yeah, let me just refine that a little bit because I've been studying this. So, it's not that there's so much — yes, there are holes that exist in the gut, in the leaky gut, there's definitely holes there, there's no question. They're usually there because of the absence of these obligate anaerobes, the Akkermansia would be one of the most prolific.

But it's, and these bugs, and Akkermansia is not the only one, there's many other cousins that has

to do with this. But they create these short-chain fatty acids from digesting the fibers that you eat. And the facultative anaerobes, the ones that are pathogenic bacteria, they don't make those short-chain fatty acids. And you're right, that's what they do, they feed the goblet cells, and they're fuel for them.

And it's locally produced fuel right there where they need it. It's not like taking a butyrate enema, or swallowing a capsule of butyrate, and hopefully it gets to the right place. No, it's produced just where you need it, and it feeds those cells locally, and the mucin that they create actually seals those holes. It seals the holes.

And then when you have the bacteria, too, the actual process of creating those short-chain fatty acids is called beta oxidation. And the process of beta oxidation, guess what you make? You consume oxygen. So, actually that lowers the oxygen concentration when you're doing that, so it kind of is like the cleaning factor. It's not that the oxygen leaks in through the holes. It doesn't happen that way, it's all internally.

Ashley Armstrong:

Yeah. The right bacteria sucks it out because it utilizes it.

Dr. Joseph Mercola:

Yeah, absolutely. That's exactly what happens. It depletes it, it uses it up, it consumes it, and it replaces it with CO₂.

Ashley Armstrong:

So basically, the energy metabolism of the cells that line the gut impacts the microbiome balance inside the gut. And so, if the cells along your gut lining are performing energy production properly through beta oxidation and producing higher levels of CO₂-utilizing oxygen, that's maintaining a low oxygen environment inside the gut, the healthy gut bacteria can thrive in that high-CO₂, low-O₂ environment.

They can take those fibers that come from our food and use them and produce short-chain fatty acids, like butyrate, which then feed the gut lining cells. And it's this wonderful cycle that works together. Whereas when someone is in a state where their gut lining cells are performing glycolysis, which stops short and doesn't use oxygen, and so it maintains a high-oxygen environment in the gut, of course those fibers are going to cause problems, because they're not being utilized by the good guys. And these facultative, how do you properly say this?

Dr. Joseph Mercola:

Facultative.

Ashley Armstrong:

Facultative, the bad guys.

Dr. Joseph Mercola:

Yeah, pathogenic.

Ashley Armstrong:

Pathogenic. They can use those fibers and create endotoxins, and that's what causes problems.

Dr. Joseph Mercola:

Yeah. That's why there's a difference. That's why some people can eat starch and thrive, other people can eat starch and they will increase endotoxin and die prematurely. They may even go into septic shock, which kills tens of thousands of people every year, folks. And it's exactly from this condition.

It's not like they get this wacky infection. No, this is an infection from their gut. They have such a severe leaky gut, produce so much endotoxin. It goes into the system, they get into this high fever, and they die from sepsis. It's a common cause of death. Common, look it up.

Ashley Armstrong:

And it's because the gut, the whole digestive system doesn't have enough energy to maintain proper function.

Dr. Joseph Mercola:

Yeah. And it's all about creating enough energy, which is what your course is all about. Simple, get more energy, and you've essentially reversed almost every disease, unless you've taken a premature suicide pill, like chemo.

Ashley Armstrong:

What would you say your top three things are to boost energy? Putting you on the spot here.

Dr. Joseph Mercola:

Well, it depends. That's easy. It depends on the question, is the refinement acutely or chronically?

Ashley Armstrong:

Wait, what?

Dr. Joseph Mercola:

You want to improve energy immediately, or do it the right way, long-term?

Ashley Armstrong:

I would say long-term, I always think long-term.

Dr. Joseph Mercola:

Okay, well, because I can make some really funny answers in the short-term that would be accurate. But no, long-term then, it's very simple. And interestingly, those are the three factors that I identified and mentioned earlier that destroy, absolutely destroy your mitochondrial function, your ability to create seamless energy in your cells, and that is seed oils, seeds and nuts,

number one, the worst and the earliest, and oldest, it's been causing havoc for 150 years in our country, and across the world, 150 years.

Then we've got following close behind is estrogen and plastics, which are the same, it's because they're hitting the estrogen receptor. And then finally you've got EMFs. And I would say endotoxin, but endotoxin is, even though it's causal, it's actually a Band-Aid. I mean, it's a symptom. It's only there because of those three factors. If those three factors work there, I'm sorry?

Ashley Armstrong:

It's a downstream effect.

Dr. Joseph Mercola:

Downstream effect. It's not the immediate cause at all. But you have to go and address it, because if you don't, it can kill you, 100%. So doing that is probably the simplest thing. And there's ways to address that that you really go into, but we've talked in the podcast before.

One of my favorites, and I think almost everyone, every adult would benefit from is progesterone. Because not only is it anti-estrogen, and how do you know if your estrogen is high? Because a lot of people are confused, including me, last year this time I didn't know this, but you just do not want to measure estrogen in your blood.

Do not, it's a waste of time and effort. It will tell you nothing. It will confuse you, it will give you no information that's useful. Non-useful information. Save your money. Do not test estrogen in your blood, worthless test. There is a blood test though, it measures a different hormone that will give you far better indication. And that test is-

Ashley Armstrong:

Collactin.

Dr. Joseph Mercola:

Yes.

Ashley Armstrong:

Yeah. It's the body's — like your serum, so the concentration of certain hormones and minerals, like calcium, certain things, your body has to keep those in a very tight window in order for us to function normally, right? And so, the body's mechanism is to store things away that are causing problems, right? And a great place to store things is adipose tissue. So, your body is storing a ton of stuff in your fat.

And so, blood work can sometimes not show what your true body levels are. And this goes back to one challenge in our current modern times of being healthy is we are bombarded by these estrogenic-like compounds everywhere in our food system, an increase in PUFAs, those can negatively impact hormonal balance, estrogen. All these personal care products that people are using these days, a lot of estrogenic compounds in there.

All the plastic water bottles and other things in the environment. And then people taking estrogen and birth control and all these things, it's throwing off our internal balance that you may not see in a blood test. And so, Dr. Mercola brings up the idea of supplementing progesterone to, over time, push that estrogen out and have a better hormonal balance.

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

And that is one thing that can boost and improve energy production, is having less estrogen stored in your body, for sure.

That's serving as one of those blocks. So, the conversation with Georgi, your body has all these pathways to produce energy. Well, something that can put just a barricade in your road is high estrogen or high PUFAs or EMFs. And we've done all these wonderful things over the last hundred years that have added more and more blocks. And it's showing up in higher rates of obesity, higher rates of chronic disease, and then a national trend downward of our body temperature, which is a sign of a lowered metabolic rate.

Have you seen that paper by Dr. Speakman? He has demonstrated that, he's now documented that our basal metabolic rate, our BMR, which is just if you were to just lay in your bed all day long, how many calories your body would burn at rest? Our BMR is declining. So again, showing that certain things that we are doing for our health are not doing good things for our metabolism, which in return, does not do good things for our health.

Dr. Joseph Mercola:

Yeah. With respect to plastic too, the average person's eating a credit card worth of plastic a week. A week, that's a lot of plastic, folks, the average person. And there's things, I think progesterone is one of the best things, [inaudible 00:57:09], but sauna would be good, exercise would be good also.

And another interesting point that I wanted to bring up, and I neglected to mention earlier, those four factors that contribute to mitochondrial dysfunction and your inability to create as much cellular energy as you need — estrogen, endotoxin, EMFs, and linoleic acid, PUFAs, those all have the same mechanism.

What's that mechanism? It's the mechanism that I first learned about when I studied EMF and wrote my book in 2018 or in 2019, "EMF*D." And that is they activate receptors in the cell, typically, and they all do this with different receptors, but the end result is the same, they cause the migration of calcium, ionic calcium outside the cell to go inside the cell.

So, they increase intracellular calcium, which has a side effect of increasing superoxide. It's an important oxidative signaling molecule, and nitric oxide, which is similar. But when they are formed and formed at higher concentrations, they instantaneously combine and form this reactive nitrogen species called peroxynitrite, which has a very long half-life relative to hydroxyl free

radical, and just travels everywhere.

And very pernicious, probably one of the most pernicious free radicals in your body. But here's the interesting point, they all have the same mechanism. They just activate different receptors, whether it's the voltage get a calcium channel receptor or the TL-4 receptor, or two others, they get the calcium in the cell, but they cause the same thing. But here's the interesting point I wanted to mention too, what is the antidote for peroxynitrite, that neutralizes peroxynitrite and stops this damage?

Ashley Armstrong:

Carbon dioxide?

Dr. Joseph Mercola:

Carbon dioxide. Of course you would know. Of course, carbon dioxide. Shocking.

Ashley Armstrong:

Something that just came to my head is, just if someone in 1800, 1850, 1900, figured out how metabolism works, they would develop this plan where all these steps would be introduced to destroy metabolism. And it's almost like that's what has been done. All of these various things entered into our food supply, entered into our environment. They are all, like you said, kind of doing the same thing. And at the end of the day, it causes reductive stress.

So, a buildup of electrons that's causing massive amounts of weight gain, all of these chronic health conditions that we're seeing, because reductive stress leads to less energy produced. We have all these buildups, again, all these highway pathways are just blocked. And now, carbon dioxide is demonized, right? But carbon dioxide is one of the best things that our metabolism has at its tool to neutralize things.

Dr. Joseph Mercola:

Yeah, it's really a magical bullet, almost. It really is crazy good. And that's one of the things we're working on for our clinic system is to integrate carbon dioxide therapies, not just breathing, although that's useful, and it's not as powerful as using some of these other interventions. And we'll go into that in future podcasts. But it's very exciting work we're doing. It's something I've been exploring personally for about the last six months with pretty tremendous results.

So, I think the carbon dioxide therapy, and the adoption of starch, the elimination of macadamia nuts, it's done pretty crazy things to my body. I've gained 4 pounds. I used to weigh 180, now I'm 184, actually I was 181, now I'm 185. "But oh, that's not so good. Dr. Mercola. What'd you do that for?" Well, my body fat went down to under 4%.

Ashley Armstrong:

See, that's why I have a problem with people utilizing just bodyweight because you can see such improvements in your body composition, and not see a change in the scale weight or see your scale weight go up.

Dr. Joseph Mercola:

Right. Yeah. And if you just use BMI (body mass index), I mean it's useful in some studies just broadly, but actually it's counterproductive. It's just a useless tool, almost. But I was pretty fascinated with that. And I think I just talked to the — we use the world's best bioimpedance device, it's called SECA, S-E-C-A. And interestingly, it's cost one third of the amount of all the other devices, pretty much under \$10,000. All the rest of them cost well over \$20,000, typically. So, I just talked to the chief researcher about an hour before this interview, and it turns out I have the company record, the highest score, because they put the muscle mass and the body fat percentage together, and they give you a collective score. And I broke the record.

Ashley Armstrong:

Okay, pause there. Because this is a really important point.

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

I think it's amazing that Dr. Mercola has found an approach where he is able to optimize his biology. I would say you increased height, you lowered your body fat.

Dr. Joseph Mercola:

Oh, yeah, I didn't mention that, I gained a half an inch in height, but that's not because my bones grew, it's because I hydrated my disc, and collagen was a big part of that too. That was the other part of the equation, the collagen.

Ashley Armstrong:

He's gone through reverse aging by boosting his metabolism, which is opposite of what all the longevity folks these days tell you, right? You want a low metabolic rate, a slow-burning candle.

Dr. Joseph Mercola:

Oh, yes.

Ashley Armstrong:

No. No, the rate of living theory-

Dr. Joseph Mercola:

Every expert says that, and it's wrong.

Ashley Armstrong:

The rate of living theory is disproven.

Dr. Joseph Mercola:

It's unguided, it's unguided.

Ashley Armstrong:

It's literally disproven. If you go in the literature, it's disproven now. But that's just a classic example of you tuned into your body, and you made these dietary tweaks, and you found an approach that boosted your metabolism, because along the way you also saw rises in body temperature as you saw these improvements.

And that goes back to Dr. Peat's phrase of, the main goal is to improve the metabolic rate, and there are many ways to do it, because if I were to follow the exact same dietary regime that you did, I may not have received the same results.

But it's about following these principles and utilizing these metrics to know if you are moving in the right direction. And I mean, truthfully, I would say that most people would experience benefit if they made some of the tweaks that you made. But that's why it's so important that part of improving your metabolism is returning to listening to your gut and being in tune with yourself.

Dr. Joseph Mercola:

And healing your gut, interestingly. But you would've probably got this if you had eaten more calories, because you're only eating 4,000 calories, and you are what, 5'4" or something?

Ashley Armstrong:

I'm not eating 4,000 calories, I'm eating 3,000 calories.

Dr. Joseph Mercola:

I thought you were eating 4,000. I thought you showed me 4,000.

Ashley Armstrong:

No, no, no, 3,000.

Dr. Joseph Mercola:

Okay.

Ashley Armstrong:

I feel like there could be a way to boost it up there, but at a certain point I-

Dr. Joseph Mercola:

I really thought you were eating 4,000. I have a hard time figuring how you were eating more calories than I was.

Ashley Armstrong:

No, no, no, 3,000. I'm like 3,000 calories. 3,000 calories. And so, that's a huge plus of having a good metabolism.

Dr. Joseph Mercola:

Yeah, you can do that.

Ashley Armstrong:

You can eat more food.

Dr. Joseph Mercola:

And you can enjoy life, and improve your health at the same time.

Ashley Armstrong:

Who likes to eat 1,200, 1,300, 1,600 calories? You don't.

Dr. Joseph Mercola:

No one would enjoy that, unless you're a masochist.

Ashley Armstrong:

Yeah. Again, going back to, life shouldn't be this hard. And the more you improve your metabolism, the more foods you can eat, and the higher quantity you can eat, and not have to live this super restrictive life. And of course, you don't want to just go — we are not saying just go eat 3,000, 4,000 calories, because a lot of people, if they were to do that they would gain weight. You have to go slow into this. But maintaining your weight at a low-calorie level is a sign of a lowered metabolic rate, because the body has downregulated to that calorie load. Your body's responding constantly to the signals that you're giving it, which are-

Dr. Joseph Mercola:

Dynamic, right.

Ashley Armstrong:

Yeah, the amount of calories and-

Dr. Joseph Mercola:

Is it haven't downregulated yet, it will, if you give it that low amount of calories, because that's what you'd expect, that's what you'd predict. That's what it's designed to do. Otherwise, you don't survive, you die, because you develop a calorie deficit, and you have to have a certain amount of calories to survive, and you go below it, you're dead. So, it doesn't want you to die, it keeps you alive by doing that.

Ashley Armstrong:

Yeah. I know of someone that their body downregulated to them maintaining their weight at 900 calories a day.

Dr. Joseph Mercola:

Oh, geez, that's cruel and unusual punishment.

Ashley Armstrong:

That's my breakfast. That's my breakfast.

Dr. Joseph Mercola:

That's my pre-breakfast. I have all that watermelon, I'll sometimes have 4 pounds of watermelon for breakfast. Before breakfast.

Ashley Armstrong:

I bought a watermelon at the store, and it severely disappointed me. So, I have decided I am just going to wait until my garden [crosstalk 01:06:00].

Dr. Joseph Mercola:

Yeah, wait until summer, they're really, get the seeded ones, for sure.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Yeah, I just like it so much. I just compromised my point, I take the ones produced in the greenhouse, but I still enjoy it, it's really sweet. So, it's nice to have this information, there's no question, because you need the data to know what to do. But the other counterpoint of this, industrial agriculture came in and destroyed our food system, and it's making it worse every day. We are actually on a path towards self-destruction, which is one of the reasons I've become so aligned with Ashley, because she, nearly single-handedly, has found the way to destroy industrial agriculture, and in the process of doing that.

So, not because she delights in that, it's just because there's a need for it, and we have to have healthy food. If you don't have access to healthy food, you can't get better. Now, we talked, and you're a chicken farmer, and not just a chicken farmer, that's one of the joys that you have, but you also have, to support chickens you have to give them food, and that means you have to grow crops to feed them.

So, you've very cleverly understood the system well enough to create incentives to have farmers sell you their products with the highest-quality standards available, so that you will take all of the food that they produce and pay them 50% above market value, 50% above market value, because farmers need to be paid. They usually get messed up in this whole process. And that's why the small farmers have been destroyed from industrial agriculture, and at the result of severely compromising their food supply.

So, you're in the process of resurrecting that, paying the farmers fairly, and then finding a market for it. The only way that you're paying 50% more than the market is that it has to be the highest-quality standard as possible, and that costs more to do. So, you're in the process of doing the system. And many people, we've encouraged people to consider joining your food cooperative, and many people have wanted to but can't because you have to think of the backorder list of like 20,000 people or something like that.

Ashley Armstrong:

We're getting more people into the system.

Dr. Joseph Mercola:

More farmers.

Ashley Armstrong:

Yes, more farmers into the system, and we're slowly growing. But I'm not going to push Mother Nature, because then we would just be a confinement operation.

Dr. Joseph Mercola:

Yeah. So, you're handicapped, because unlike the traditional chicken growers who can take 20,000, 50,000 chickens in a chicken farming operation, you limit it to two, because there are definite complications that occur to the flock when you get more than 2,000, or could, and usually do.

Ashley Armstrong:

So, I think in terms of my journey, step one was learning about metabolism. And then once I learned about metabolism, I was like, "Okay, the body has to have the right food to fix itself." The body will, if you give the body the tools it needs, it's designed to regenerate. That is what the body is designed to do. And so, in pursuit of the highest-quality foods, I couldn't find what I was looking for. And so, it started with the metabolism focus, and then wanting to buy these foods and not finding them.

And so, then we were like, "Let's just start a farm." And then realizing being a farmer is very hard, very, very, very hard. And the current conventional system is designed such that the big agriculture companies make a ton of money and farmers make very little. And so, of course, quality is compromised. Of course. In order to survive financially, you have to do these other things. And so, it's really hard to be a profitable small farmer in the current conventional system.

Dr. Joseph Mercola:

It's almost impossible. And I think you can share the stories of that, most farmers who are really committed, and maybe, well, just passionate about this and wanting to do it, have to take outside jobs to support their farming, because the farming doesn't pay their labor.

Ashley Armstrong:

Yeah. Our hog partner was taking a job from 3:00 AM to 3:00 PM, a construction job, Monday through Saturday, and then would farm 3:00 to 7:00, and then repeat every single day. Over, maybe, 85% of farmers have to have an off-farm job to be able to support their farm. It is very hard to be a farmer. It really is. And the current conventional system is no farmer's fault, they are all doing the best that they can, given the current structure. But no farmer is incentivized to do things that are beneficial for health. They're incentivized purely by yield, and that's when we all-

Dr. Joseph Mercola:

No attention to quality. None.

Ashley Armstrong:

Exactly. When greed and yield become our primary things, of course quality is going to be sacrificed. And so, that is one point in America where it is hard to be healthy if you can't find a good food source, it is hard. But when you do find a good food source, supporting them as often as you can, and giving your body those tools, that's how your metabolism is going to heal.

And truthfully, Dr. Mercola, I think one of the biggest things that I have realized along my health journey, where you source your fats is the most important food source. That's my thoughts. Because the fats that you consume dietarily, they serve as structural components inside your body, that impacts function. They also serve as energy because some parts of your body use fat for fuel, but they also serve as signaling molecules.

And so, Dr. Mercola commonly brings up linoleic acid, linoleic acid, linoleic acid. Well, when linoleic acid is broken down, it produces these metabolites, and those are serving as signaling molecules, telling your body certain things, right? And so, when a squirrel goes into hibernation, it increases PUFA consumption, all these metabolites signal to the body, "Oh, it's hibernation mode, let's downregulate metabolism."

That's happening across America. Americans are entering hibernation mode because our food system has shifted from higher saturated fat to higher polyunsaturated fat, because that's what U.S. dietary guidelines is telling people to do. And so of course, if U.S. dietary guidelines say, "Saturated fat is bad, PUFA is good."

There's billions of dollars of research going into how we can change the food system to decrease saturated fat and increase PUFA, manipulating Mother Nature's design, because we think we're smarter because it's based on this false premise from Ancel Keys, that polyunsaturated — well, actually, I don't know if he was the first person, but this false premise that saturated fat is bad.

Dr. Joseph Mercola:

He was the prominent nutritionist in the '50s, 1950s, and was an advisor. He was a Ph.D., I don't think he was an MD, to I think one of the presidents, maybe President Eisenhower. And he got his theories embedded in the whole federal regulatory components, and they were embraced. And really, he was the catalyst.

I mean, it existed before him, but he probably was a consultant for the American Heart Association too, and it caused them to adopt the high-vegetable-oil recommendation, which is the epitome. We did not have heart attacks, though it was almost impossible to have a heart attack before the 20th century. I think the first reported heart attack in the United States was 1912. 1912. Now it's the most common cause of disease, right up there with cancer. Not disease, but death, that's what I meant to say.

Ashley Armstrong:

Well, this just goes to show, the food that you consume every single day plays a huge role in your health, a huge role. And a lot of people kind of disregard food as an important variable in health, but-

Dr. Joseph Mercola:

Yeah. It's the main variable.

Ashley Armstrong:

It's the main variable. It's sending signals to your body every single day. And it's really unfortunate that these health topics that were popularized, like you said in the 1950s or so, about saturated fat and PUFAs, like they're so deep-rooted into the food system now, that unfortunately, people are trying to manipulate and get us more and more PUFA.

So, it's not just vegetable oils, it's also what the livestock are eating. We've changed so much, and it just infuriates me, and I think that that's one of the big things that kind of motivates me to help try to change this, because it's happening at such a scale that I don't think people realize.

And I think it's just going to get worse-

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

-as people find more and more ways to manipulate these fatty acids. And it's one of those things that it's starting to get out of people's control. And that's why I think it's important for us to have these conversations and for people to spread awareness, so that way farmers become more aware of, "Hey, how we're producing food will actually impact these type of things."

Dr. Joseph Mercola:

Yeah, so it's difficult, and it's a challenge, but you and I both were able to navigate, and certainly others can. And what you're doing now is helping, but perhaps you're one of the primary resources in the country for this, and you will be the biggest. But it's a process, it doesn't happen overnight. The process starts from finding the right chicks to do the eggs, and there's a huge issue with finding chicks because they're almost all vaccinated. You don't want vaccinated chicks to be your chickens.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

You want unvaccinated chicks, so you have to make your own chicks, which is doable, but it's a whole other part of the process to figure out. And then you've got to get the farmers to grow the food for them, and you have to do it locally because you don't want to be transporting grain across the country because that's an unnecessary expense, it would raise the price. So, there's a lot of logistics that need to be sorted through.

So, I'm wondering if you could maybe expand a little bit about that, but most importantly, let the people know on your back order list, what's the likelihood, what's the plan for increasing the volume of the healthy food you're able to produce, to the point where everyone can get it. I think ultimately, folks, I can tell you the answer, within a few years, the produce that Ashley's producing will be pretty much in every grocery store. Every grocery store. And they're called, did you change your name? It's Golden Nuggets, is the brand name.

Ashley Armstrong:

Well, there's Nourish Cooperative-

Dr. Joseph Mercola:

Okay. But your eggs.

Ashley Armstrong:

And then there's, so that we've got the meat and milk and dairy, and pork and local [crosstalk 01:16:46] chicken-

Dr. Joseph Mercola:

And cheese.

Ashley Armstrong:

And cheese.

Dr. Joseph Mercola:

I heard you've got a really good distributor coming on board real soon. Like real soon.

Ashley Armstrong:

Yeah, I wonder who that is? I wonder who that is? Cheese will be the highest quality cheese-

Dr. Joseph Mercola:

You can buy anywhere.

Ashley Armstrong:

Will be available very soon.

Dr. Joseph Mercola:

Yeah, and it's from Amish farmers, raw dairy from Amish farmers, with animal rennet. No synthetic garbage.

Ashley Armstrong:

No Pfizer intervention.

Dr. Joseph Mercola:

It's the one that I have, I have several pounds a week of that, I think. I love it. It's one of my favorite delights. I love it.

Ashley Armstrong:

Yeah. So again, understanding metabolism goes to understanding nature, and the cycles of nature and working with nature. I am trying to make a big change to the food system, but it can't happen overnight. And I know that there are people who are frustrated on the wait list and things, but if we push too hard, that's when we're going to run into mistakes, or we may — you have to work with Mother Nature, that's our whole goal. And things are just slow. So, a chicken, finding chicks is really hard that are unvaccinated because-

Dr. Joseph Mercola:

Thus, you're going to grow your own, you're going to grow your own. That means building brooding houses, and there's a lot of capital investments involved.

Ashley Armstrong:

If anyone wants to be a chick partner and have a hatchery for us, reach out to us. If you've got a facility for that already, and you can produce unvaccinated chicks for us, please reach out.

Dr. Joseph Mercola:

Yeah, there's a great need for it. We can keep you filled for the next few years, because ultimately we need a few hundred million chickens to service the country. And we're not anywhere close. I mean, how many chickens do you have now in your system, 20,000?

Ashley Armstrong:

No, that's next year. Next year will be about-

Dr. Joseph Mercola:

Next year.

Ashley Armstrong:

We'll be at 30,000 next year. This year we're going to be at like 8,000. So, we'll be opening up a lot more spots here soon. But, we have to test it out with our system, and then it's going to take — I honestly think it's going to require some sort of government regulation to help us make this mainstream. Because right now, farmers aren't incentivized to do this. I can pay farmers above-

So, people saying about our eggs are more expensive. Absolutely, yes, they are. But there's a reason why. And if you were to know how much farmers are paid for the eggs that you pay at the grocery store, you would feel saddened, because as an audience member, how much is your time? Do you think that it's fair to pay farmers less than a dollar an hour? It's really sad, when you break down the cost of your food and you go back to farmers not really even being compensated for their time, they're just compensated for their costs.

That's when you realize that the food system is damaged, because we don't put our farmers at a high enough pedestal. Farmers are the most important thing to control the health of the next generation. And farmers are not treated with respect like they should be. And that's why I almost feel like an obligation and a duty to help give them a better market because I see how hard it is to be a farmer.

Dr. Joseph Mercola:

Yeah. And that's an exemplary action too, because you don't do this because you want to become rich.

Ashley Armstrong:

No.

Dr. Joseph Mercola:

There's not a lot of margin in this at all. In fact, if you do this, you want to become anti-rich and poor.

Ashley Armstrong:

The best way to start a farm — do you know the best way to have a million dollar farm?

Dr. Joseph Mercola:

Yes, best \$2 million of the farm.

Ashley Armstrong:

Yeah. No, but, so that is true with the conventional system, right?

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

But that's not sustainable. And so we're driving farmers more and more out of business as the years goes on. And so guess what that means? That means that we rely more on lab-made food, and these synthetic materials. America spends the least amount of money on our food relative to other countries, and I think that that's kind of represented in how our farmers are compensated.

And I think that it's going to take farmers being paid more to actually make a big shift in the food system. And so, maybe down the line there's some policy change and policy incentive. But Dr. Mercola, what government entity would support reducing PUFAs in the food because their dietary guidelines say, "We want more PUFAs." It's backwards, it's opposite of what they say. And so, there's so much unlearning to be done, so much.

Dr. Joseph Mercola:

It almost looks like it might've been intentional. You have to wonder. It could be non-intentional, but the end result is it's the same. It's just devastating to health, and social structure, and unfair to

farmers, no question. So, the world owes a debt of gratitude to you and your focus on seeking to rescue this. And I'm pretty sure you will, and I'm aligned with it, and I think it's really a noble goal and effort, and really it's almost imperative.

Unless you're going to go out there and grow your food, who's going to be doing that? There's not many people who are doing that. I raise my own chickens, but that's not easy. So, I can make, and I've got 25 chickens, they're still not producing. I've been getting all my eggs from you for a few months now, because predators got mine and it took us a while to find the chickens, and they told us they were three months old, and when we bought them, they were probably three weeks old. I don't know.

Ashley Armstrong:

I don't think you were told the right age.

Dr. Joseph Mercola:

Yeah, because they should have been laying by now, but they're not. But hopefully in the next week or two they'll start laying. But it's a hard process, it's not easy.

Ashley Armstrong:

It's hard. Imagine now also trying to produce beef in your backyard for all your bones and collagens. Imagine trying to have a dairy animal and do your cheese. It's hard to do it all. And so, farmers do need to work together. And there's not that central, or it doesn't even need to be central, more like regional distribution of syncing farmers together that are like-minded, because now all these farmers are operating independently trying to make a change, and they're doing amazing things, but we're fighting against a really big beast.

Dr. Joseph Mercola:

Yeah, really big.

Ashley Armstrong:

And that is the Big Agriculture.

Dr. Joseph Mercola:

But you've understood that, and you need to understand distribution and hubs, and make it economically feasible for farmers to bring their production of food to a central hub so it can be distributed more efficiently. That's a big part of the equation. And also, a slaughterhouse is a big part of the equation too, so we start going to cows and sheep and cattle, you've got to — a slaughterhouse investment could be pretty pricey. It could be tens of millions of dollars to build a slaughterhouse, and many, I think I heard on one of your podcasts, many ranchers, they have to schedule their cows for slaughtering before the animals are even born, they're so far backed up, which is crazy.

Ashley Armstrong:

Yep. We recently acquired Firebrand Meats, and I had to schedule-

Dr. Joseph Mercola:

From Brad Marshall.

Ashley Armstrong:

From Brad Marshall.

Dr. Joseph Mercola:

Because I hooked you two up together.

Ashley Armstrong:

Yeah, yeah. Low-PUFA pork from Firebrand Meats. I've got to schedule processing dates a year from now. How do I know how much pork, pigs are going to go to the butcher? You don't.

Dr. Joseph Mercola:

Yeah, it is absolutely unfair. So, you almost have to have your own food processing plant.

Ashley Armstrong:

We do.

Dr. Joseph Mercola:

We're moving towards that, but it's a big capital investment, and we've got to go slowly. But it'll happen, and eventually we win.

Ashley Armstrong:

Yes, 100%. By fixing health and fixing the food system.

Dr. Joseph Mercola:

Yeah, it's a simple equation. Not simple, easy to do, but it's simple. I mean, it's not a complicated rocket science. It's pretty straightforward, but it needs commitment and dedication, and a lot of problem-solving, a lot of pivoting. So, kudos to you for doing that because a lot of challenges along the way.

Ashley Armstrong:

Yeah, like some of the things that we're working through is dry ice complications, stuff that you don't want to — it sucks, but we're figuring it out. But, yeah.

Dr. Joseph Mercola:

Yeah. So, I'm really looking forward to having a cheese distribution. We'll probably have it in maybe a few weeks after this podcast airs, which is really cool. Two weeks?

Ashley Armstrong:

Two months.

Dr. Joseph Mercola:

Two months. Okay. Darn.

Ashley Armstrong:

Cheese has to age for 60 days.

Dr. Joseph Mercola:

Oh, I thought it was two weeks.

Ashley Armstrong:

It has to age-

Dr. Joseph Mercola:

So, two months. Before fall, folks, because we-

Ashley Armstrong:

Yeah, yeah, yeah.

Dr. Joseph Mercola:

Yeah. So, we're going to have like 10,000 pounds a month, which is a lot of cheese, which is good. I'm looking forward to that. But that doesn't mean 10,000 people because a lot of people are going to buy more than 1 pound.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Yeah, that's good. Any other things you'd like to share with us today, you want to comment on?

Ashley Armstrong:

I guess a concluding remark would just be, kind of resonating with the audience. I was at a place where I was afraid and scared and confused with my health, and I know a lot of people are in that state, and don't ever feel sorry for yourself or be upset that you're in that position, because modern times makes it easy to be there. But just know that there is a path out, because I know that a lot of people are struggling. They are confused.

They feel like they constantly have to restrict, but there is a way out. There is a path out. It doesn't have to be the way that it is now. And as long as you're willing to get rid of some dogmatic thinking and kind of have an open perspective, and view health in a different way, how you view your health really impacts how your health actually is.

And so, kind of developing a different framework and view and lens can be really empowering. And so, being able to analyze your day-to-day habits and day-to-day patterns and see if they are

serving you or if they are holding you back, because the things that we do every day, the food that we eat, the people who we spend time with, the amount of sun that we don't or do get, those things build up and add up over time.

And so, being able to analyze your day-to-day habits and behaviors, and assessing if they are serving you or holding you back is a really important first step. And it's hard. It really is hard to address that and see, and no one likes to be told certain things, right? I do things in my day to day that aren't perfect, everyone does, but as long as it's like 80/20, 90/10, you're going to go in the right direction.

Dr. Joseph Mercola:

Yeah. It's just a matter of doing it, not ignoring it, and being able to pivot, and forgive yourself when you don't, it's the key.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Yeah. But your resource is another valuable tool, the course you and your sister created, the "Roots of Resilience," is it?

Ashley Armstrong:

"Rooted in Resilience."

Dr. Joseph Mercola:

"Rooted in Resilience." Yeah. So yeah, it's an interesting title, but it's more fascinating is the material that would literally change your life for you and your family if you adopt it.

Ashley Armstrong:

Well, the reason for the name is because to be resilient, given all of the crazy stuff that life throws at these days, in order to be resilient you got to have a good metabolism, to face stress, to face the environmental BS that we deal with every day. And that's the reason for it, to have some resiliency.

Dr. Joseph Mercola:

It's wonderful to be resilient. There's no question. And ideally you want to wake up every day, and there's not a pain in your body. Nothing, nowhere. There's not many people who can say that. And you've got plenty of energy. I mean, you don't struggle. You can think. You can remember things, and you're passionate. And you fall asleep easily and you wake up really easily, and there's no pain. I mean, that's where you want to be. And you can be there.

And almost everyone is capable of doing that, because your body has enormous regenerative capacity. It's almost like a salamander in some ways. You cut off a salamander's arm, it'll grow back. Well, your liver will do that pretty much. But the other parts of your body, maybe they're

not able to regenerate a limb, but you can regenerate a lot of lost function. It's shocking what you can recover.

Ashley Armstrong:

And having the mindset that you can heal, not thinking that you're broken, your mind plays a really important role in part of this. And so, believing that that is even a possibility, that does play an important role. It really does. The things that you tell yourself.

Dr. Joseph Mercola:

Yeah, absolutely. So, thank you for everything you're doing, continue to do and will do. It's exciting, the changes that are going to happen as a result of your commitment and dedication and your innovation, so I'm glad to be collaborating with you in this valiant effort to recover a healthy food supply, restore it and make it available to everyone.

Ashley Armstrong:

Yeah. Well, I appreciate the opportunity, Dr. Mercola.