

The Human Upgrade: Episode 1128

[00:00:00] **Dave:** You are listening to The Human Upgrade with Dave Asprey. Today we have my friend Teri Cochrane with us. She's an integrative practitioner and pioneer in what we now might call personalized healthcare. She's been working on very customized approaches towards individual treatment, as well as some things about nutrition and food where we're in agreement on many, many different things. And we're going to go through some specifics about food, some specifics about how your metabolism works in a way that you haven't heard on the show before.

[00:00:41] And we'll even tie this into how you think about food, how you feel about food and your life, and how that affects your biology. The last time you heard Teri on the show was Episode 646, so a few years ago, and that was when we talked about this R3 program and the Wildatarian Diet. She did her R3 program, ties together your physical wellbeing with quantum biology.

[00:01:11] If you've been listening to the show for a while, you know that I have put at the very core of biohacking this idea that mitochondria are at the foundational level of your biology. Everything that's happening in your body is a reflection of what's happening in them. Teri is one of the very earliest people in the field who's had a similar perspective. So there's a lot of wisdom to be learned here. Teri, welcome to The Human Upgrade.

[00:01:36] **Teri:** Thank you so much, Dave. So good to be with your audience again, and great to see you.

[00:01:40] **Dave:** My pleasure. Now, I talk about these four f-words in my work that mitochondria do-- fear, food, the other f-word, and then fertility. And lately, I've added a fifth f-word, which is forgiveness. So this is how you start the loop again, by letting go of the first four. But you talk about the big four, but they're not f-words. So in your work, you have big four metabolic impairments. Can you teach us about those?

[00:02:11] **Teri:** Absolutely. And I love the fact that we both have our big four and now plus one.

[00:02:16] **Dave:** Nice.

[00:02:17] **Teri:** So about a decade ago, I discovered that our macrocosm, our food supply had been hijacked, and it had been hijacked through two major disruptors. One was the crowding of animals, and the torturing of them, which not only filled them with hormones and antibiotics and

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foods that they could not digest, but it also tortured them by crowding them into spaces that were not, we say inhumane, but it's inanimal.

[00:02:53] It's just not to a human species the thing to do. And when you talk about the mitochondria driving all of us, when they crowded these animals, what ended up happening is the stress response within them, and this is in the clinical literature in my book, and now it's been forwarded many times and with other research, these crowding conditions created these indigestible proteins by the name of amyloids. And we build these amyloids within our body as a homeostatic mechanism.

[00:03:23] It's an inflammatory response. These are endogenous internal amyloids, and they come in and create an inflammation, and then we put out the fire. That's normal, a normal mechanism. However, these exogenous, heavy burdened amyloids came into our food supply. Chicken being the most studied and the dirtiest of birds because they're most crowded, really created a deleterious cascade of an autoimmune response.

[00:03:50] Because amyloids, we now know that turn on viral structures. And the herpes family of viruses, Epstein Barr turns into Hashimoto's, varicella turns into MS, or polycystic ovarian syndrome, or Bell's palsy, or even ulcerative colitis. We have the cytomegalovirus turning into cancer or lung disease or heart disease. And so these viruses got lit up by the amyloids.

[00:04:17] And then the second piece, which was really elucidated by the beautiful work of Dr. Stephanie Seneff, was glyphosate. So everybody's talked about glyphosate. So we talk about the shikimate pathway. We talk about the bacteria. What's little less talked about is the fact that it also disrupted protein by mimicking glycine, and glycine is necessary for protein metabolism.

[00:04:39] So we had two vectors breaking down our ability to process protein, and then it also broke down the ability to convert our happy sulfur friends into sulfate, which is necessary for bones, and tendons, and mental health, and the integrity of our gut. And then the last thing was it related to the oxalobacter bacteria, which just wiped them out.

[00:05:03] So this glyphosate, these two interrupters of the crowding and torturing of animals, which disrupted protein, and then the glyphosate, which again disrupted protein and sulfur and oxalate metabolism, created this massive, massive deleterious impact, amyloids, which are protein malabsorption, sulfur malabsorption, oxalate malabsorption, and then our stress response

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in ourselves, fat malabsorption. Now, Dave, what we've not talked about yet, and this is something that is so fascinating, is that the spike protein mirrors exactly what these four disruptors do.

[00:05:40] **Dave:** What the what disruptors do?

[00:05:41] **Teri:** The spike protein, they do the exact same thing.

[00:05:45] **Dave:** As which of those things?

[00:05:46] **Teri:** Creates amyloids.

[00:05:48] **Dave:** Oh, as amyloids. Okay, got it.

[00:05:49] **Teri:** Creates seven vectors of amyloids. Actually makes oxalates, disrupt fat metabolism.

[00:05:55] **Dave:** The spike protein makes oxalates?

[00:05:57] **Teri:** Yes, it's in the clinical literature.

[00:05:59] **Dave:** Oh my God. That's one I missed. So for listeners, oxalates are these compounds that are usually made by plants but can be made by fungus. In fact, if you have mold in your house or if you have candida, you have more of them. They find calcium in your body. They form razor sharp crystals that are behind kidney stones, behind gout, behind all kinds of autoimmune and other symptoms that you think are aging.

[00:06:26] And it turns out spinach and kale, which I've been on the war against kale for a long time, and so have you, Teri. We're both early, early oxalate people. These are really important. So if you are trying to recover from COVID, and you're doing it with spinach, kale, raspberries, almonds and beets because you heard they were superfoods and maybe some peanut butter because you heard it was protein and your life sucks, maybe you should listen to my old episode on Joe Rogan, where I teach him about spinach and kale and why those kale smoothies aren't good.

[00:06:58] Oh wait, nevermind. Joe Rogan deleted that when he went to Spotify, but I love you anyway, Joe. Anyway, maybe you could listen to the one seven years later where he says that he

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had to quit the kale smoothies because of oxalates. You trained Mike Tyson on what to eat, and Mike went on Joe Rogan and said, hey, killer kale.

[00:07:18] So guys, if you didn't hear it 10 years ago from me and you've been denying this forever and you're really sucking in your life right now, post the last three years, maybe you need to make a nutritional change because the other thing you talked about here from Stephanie Seneff-- by the way, she was on the show talking about these things seven years ago, I believe, including the glycine thing, is oxalobacter, this bacteria that used to be in our gut.

[00:07:43] It's not present anymore. It didn't make that big of a difference on oxalate metabolism, but it helped a little bit according to the research I've seen. It's gone. So what are we going to do? What's the answer? We'll get into amyloids in a bit. Those are something we also share an interest in from longevity. But what are going to do about oxalates right now? Let's start with that.

[00:08:04] **Teri:** Okay, so thank you for that, being a pioneer in the war against oxalates because now--

[00:08:10] **Dave:** You've given them too. Yeah.

[00:08:14] **Teri:** We're in this together. Now what they found, this is fascinating, Dave, in the, cadavers of people that had experienced the spike protein, those over 70, 80% had oxalate crystals in their thyroid.

[00:08:26] **Dave:** Oh wait, was that just for COVID, or was that just everyone over that age? I thought it was in everyone.

[00:08:31] **Teri:** Was it everyone? I thought it was in the post. So this is really interesting, and we have the clinical literature, and I'll happy to share it with your friends, is now oxalates have become shard glass in our bodies, and they will break through, and they're tied to heart disease. They're tied to any kind of fibrogenicity. And so what do we do? We got to stay away from them and take things that will break them down. So what breaks down oxalates?

[00:08:58] Anything that has a crystalline structure, we need an emulsifier, but we need intelligent emulsifiers. And so what are intelligent emulsifiers? Well, we love serrapeptase

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because as a proteolytic enzyme, it's going to break down fibrogenicity. It's going to break down something that is hard.

[00:09:18] **Dave:** It breaks down scar tissue that's formed around razor sharp crystals of oxalic acid or of oxalates in the body, calcium oxalate. But breaking down scar tissue while you leave the shards in doesn't seem like a long-term strategy.

[00:09:31] **Teri:** No. The long-term strategy is we really have to rethink what healthy food is for us, and we have to redirect our plate to less greens, killer kale, Swiss charred, spinach, almonds. Tufts University 12 years ago said, eating almonds will reduce your risk of stroke by 60%. Now eating almonds could actually increase your risk of stroke because it's creating an oxalate crystal potentially creating a blood clot.

[00:10:02] **Dave:** Wow. I feel like I've been beating this drum. You do too. I don't think I've beat it hard enough though. I wrote in the first chapter of the Bulletproof Diet. This is, geez, 2012 or something, and I said, okay, these are the things we're dealing with in plants, and in meat.

[00:10:20] And plants, it's oxalates. It's phytic acid, histamines, which are more common in meat than in plants, but can be in some plants, omega-6s, and lectins. And so each of those has had its day. Lectins have had their day, and they matter. Some lectins matter more to some people than others.

[00:10:42] They're not all bad because you make them every day for use in your body, just different flavors of lectins. But oxalates, I identified them. It came out against the really strong ones, but not strongly enough. And in my most recent book, I talk a lot more about that. But it seems like either we've all got worse at processing oxalates, which you may have just explained why, or maybe they just build up over time.

[00:11:09] And because I was a raw vegan and a regular vegan also, maybe I built up more of those. You can only eat so much whole grain, which has more oxalate than white grain. So I just feel like in the '70s, some asshole decided that eating the shell of the walnut was good for you for some reason, and you should just eat whole foods, and it doesn't work like that.

[00:11:33] **Teri:** It sure doesn't. And Dave, one of the things that really-- I've done deep research over this last almost four years because I still have an active practice, and so they become my

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Human Upgrade lab in real time in my clinic because of the way that I deploy my applied kinesiology. And what's been so fascinating is my big four has also now added a fifth, and that fifth is histamine.

[00:11:57] **Dave:** Which is oftentimes caused by oxalates too. Okay.

[00:12:00] **Teri:** Yes. And so what we're finding, this is really interesting. Again, we'll share all the clinical literature that I have found and all the anecdotal outcomes in the success stories of my practice as well with your audience. So what's really interesting is this spike protein, however it comes into your world, will turn on the histamine receptor one gene, HRH1. That histamine receptor gene cross and intersects with the sulfation pathway, which then also intersects with the oxalate metabolism pathway.

[00:12:25] So we have this layering of hell. And what we're finding is histamine, I call it sneezing on the inside, it's not necessarily an itchy eye, sneezy, runny nose. It can make idiopathic anxiety disorder. It can actually increase your estrogen, which then will increase your risk of all sorts of bad things, especially if you're growing oxalates and you have candida, so you're going to get endometriosis or [Inaudible] the size of your head.

[00:12:54] We've had 20-something-year-olds having full hysterectomies in my practice because of their healthy eating habits. And so this very big layered cake has become a very big deal, and many are being sent down in incorrect rabbit holes when they're being given anti-anxiety medication for idiopathic anxiety or ulcerative colitis.

[00:13:18] So they try to calm their nervous system and actually the causal is the three layers of histamine, oxalate, and sulfur. And then that pharmaceutical further backs up that phase 1 detoxification, which further flips the histamine on its trajectory of, oh boy.

[00:13:41] **Dave:** So this seems almost intractable. If you're listening to this, you're going, okay, we haven't even gotten into this idea that eating animals that were mistreated is bad for you. I think you might've heard that on the show before. And Teri, in our last interview, you're the one who I think has been the original person talking about how we have a problem with amyloid in these.

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[00:14:07] People who've read my longevity book, you know that amyloid is one of the sources of intracellular and extracellular junk that builds up over time and that your body can't process much amyloid. So this is one of the things you want to eat less of and generate less of over time. And I talk about techniques and strategies for that, probably even in eating grass-fed meat. And that would've come from work.

[00:14:35] We hadn't even gotten into that, and now you're saying, don't eat most of the plants. It's not most of them. There are some you can eat. But even things like sweet potatoes, sweet potatoes are better than wheat, but especially if you're eating the peels, they have a meaningful amount of oxalate.

[00:14:52] And I've found that over the last six, seven years, I'm into it. I can feel what foods do to me at a very nuanced level because I'll try running at 10% of your mitochondrial levels and you learn subtle shifts. You can feel them. So I'm just like, my body doesn't want that. I'm going to eat it.

[00:15:14] So the problem is you would say, all right, let's go carnivore. I did that when I wrote The Bulletproof Diet. You do all carnivore, you get sick. A lot of people get sick on it. By the way, though, you feel great for the first while, just like I did when I went raw vegan. So I felt amazing and lost weight and did all the carnivore stuff, but we didn't call it carnivore because there was no name for it.

[00:15:35] It one edge of the bulletproof zone on the Bulletproof Diet. But then three months in, I'm waking up a dozen times a night. I can sleep 10 hours. I don't feel great. And I get a leaky gut, and I get some more food allergies. And so it can't be just carnivore, but it's got to be something else. I have my ideas about what works really well. I'm six and a half percent body fat. I'm never hungry. And I eat a lot of steak. But I've always eaten a lot of steak. So tell me, what do you do that works?

[00:16:06] **Teri:** Great question. And again, I'm the princess and the P because I have all the genetics that flip on histamine phase 1 liver detoxification. Turmeric kicks my butt. I have sulfur and oxalate processing issues. I have a protein malabsorption, MTHFR A1298C. So that one is one that doesn't allow for protein digestion. And my entire father's side of the family rarely made it to 60.

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[00:16:31] **Dave:** Wow.

[00:16:31] **Teri:** So it was heart attacks. Now I understand why, the sulfur, the oxalates, the protein, even back then when we were less toxic as a human population. So for me, it's a dance. And this is to your point. We are nuanced beings, and it's leaning into the energy of food and understanding what we need when we need it.

[00:16:52] And a big part of my work is really having my clients become their own body interpreters so they can understand the dance. We can never be all things all the time in one direction because the body is never static. So if we're carnivores or if we're vegans, or if we're vegetarians, or if we're pescatarians and we'll get mercury toxicity, it's understanding this beautiful dance.

[00:17:17] And so part of the work is you first got have to clear the vessel so the receiver is understanding the correct information. When there's a lot of static in the system, you're so confused.

[00:17:32] **Dave:** Mm. Okay. There's static in the system. That makes a lot of sense. Even if you go to things like autism or Asperger's, it's essentially a lot of static lines that don't have enough signal, enough electricity. So if we're all getting some static now, what's the fix?

[00:17:51] **Teri:** So the fix is understanding that we first have to eat what I say counter seasonally. So because we carry such a large toxic burden, even if we are clean, it's a bit ubiquitous. Our water, even organic products have cross contamination to glyphosate. And so what we talk about is every season you're going to eat counter to what is being pollinated, especially with a really high histamine load.

[00:18:19] So during the spring season, especially here in the Metro DC area, we stay away from tree nuts. During the fall where mold is heavy, we stay away from anything that's sprouted or fermented or is mold or fungus. During the summer, we stay away from grasses. Even that very, very smart and liver cleansing wheat grass can tip the scales, and we move away from that.

[00:18:43] So to answer your question, what do I eat? I'm a wildatarian for sure. That has changed my physiology. I'm so much younger than I was 10 years ago in my mind and my physiology, and even in my DNA age, metabolic age, and I really dance with, what are my

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hierarchy of needs? So I love the root vegetables that relate to, like, carrots are amazing. I love my purple potatoes because of the phytonutrients that they carry. Those antioxidants, I really love.

[00:19:20] **Dave:** Carrots are not low oxalate at all.

[00:19:23] **Teri:** They're not, but this is the hierarchy of needs, Dave. This is where I have even a nuanced, layered approach. So neither carrots nor sweet potatoes are low in oxalates. However, they're very, very high in betacarotene. And so betacarotene is really important for the epithelial tissue of the GI tract. And they help modulate insulin. And so for me, when I layer that, this is the nuance, and this is when you come to my practice, we tell you exactly where you should be, where's the hierarchy of needs.

[00:20:00] So for me, carrots and sweet potatoes, without the skin on the sweet potatoes, I can eat them. I also eat a lot of artichokes, which is so great for liver detoxification and really high in nitric oxide. I eat a lot of Bibb lettuce, but I don't eat arugula. Again, you know that sulfur. I don't eat any of the Swiss chard spinach. Forget it. And so I look to--

[00:20:22] **Dave:** Tell me about arugula one more time. Because of the sulfur, it's an issue for you?

[00:20:25] **Teri:** Arugula has sulfur.

[00:20:26] **Dave:** Got it. So people who can't process sulfur, don't eat arugula, but otherwise arugula is okay for you.

[00:20:33] **Teri:** It's really good. And again, hierarchy of needs. If you need to metabolize a little bit of estrogen, then baby arugula, not every day, can actually be quite good. And cooking it will be better. Just sauteing it a little bit in butter takes that bite down.

[00:20:53] **Dave:** Do you ever feel guilty, though? I buy arugula. You get five ounces. It's this giant plastic clam, and then you throw it on the stove, and you light the stove and it instantly goes, boop, and it's like three bites.

[00:21:04] **Teri:** It is three bites.

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[00:21:05] **Dave:** So I've just spend five bucks on three bites of stupid green stuff. I feel victimized by arugula.

[00:21:13] **Teri:** The way to help obviate that is that you stick some other stuff in there that will help it grow.

[00:21:19] **Dave:** Oh, like steak. Is that the rest?

[00:21:21] **Teri:** Like steak. Like steak or something that doesn't break down. Potatoes have become a resistant starch. Unless you have a dysbiotic gut, they're not terrible.

[00:21:32] **Dave:** But potatoes also are higher in oxalate.

[00:21:35] **Teri:** They are. Again, hierarchy of needs. So this is where, what I look to, the non-negotiables, spinach, so high in oxalates. It's just like, what are you doing? Let's just build some shard in our system. Almonds, super, super high in oxalates. And we also have to consider the crossover of oxalates and molds.

[00:21:56] So berries that can be high in mold will help you get more oxalates. They're oxalate builders because the mold will create that oxalobacter bacteria, that oxalic acid. They go together. That's why candida, which is a fungal species, you'll see that your oxalic acid, if you do an organic acid test when you have candida, is going to be elevated. And so that's why we stay away from molds. Molds are tricky with oxalates.

[00:22:24] **Dave:** I have an oxalate mold berry story. You want to hear it?

[00:22:27] **Teri:** Yes, please.

[00:22:28] **Dave:** All right. Years ago, when I'm recovering from being a raw vegan and I've started developing the fertility diet that was behind the Better Baby book, my first book-- a lot of listeners don't know that. I've spent five years writing a book on fertility that taught me a lot.

[00:22:44] I go to the farmer's market, and I'd go there sometimes with-- we had just my daughter at the time, and I have this kid on my back, and I'm pulling a red wagon to buy all the vegetables and stuff, and I buy berries, but not just a few. I would buy like 20 little boxes of red raspberries. They're so good.

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[00:23:07] And then I know they mold, so I'd take them home, and I'd spread them out on little drying trays, and I'd spray them with grapefruit seed extract so they wouldn't mold. I'm very careful. I'm a trained raw vegan after all, and I put them in the fridge, and I'd eat them throughout the week because I know raspberry is a good for you. They make you live forever.

[00:23:27] And after a while I'm like, God, I got to pee, and I'm leaking. Sometimes I have to pee 25 times a day. And I go to my doctor, and he's like, oh, that's weird. We'll go to this top guy in San Francisco. And I go in there, and I go in for this meeting, and he goes, I don't know. Here. And he gets this giant camera and sticks it in my dick hole.

[00:23:46] **Teri:** Oh.

[00:23:46] **Dave:** Can I say that here? I don't don't know. Is that a medical term? I'm like, oh my god. And I don't know. That was not an in hole, for me anyway. That was traumatic. And afterwards, he comes out and was like, I didn't see anything. I'm like, what did you just do to me? This is horrible. So I go home, and I dug and I dug and I saw somewhere in some little form that, oh, sometimes raspberries make have to pee. And they thought it was alanine acid. It's not.

[00:24:16] What was going on is raspberries are high in oxalates. Because I was also using a huge amount of plants and I wasn't oxalate aware enough, I was getting high levels of razor sharp crystals in my urethra, and so I had to pee all the time. And so I finally figured it out. I stopped.

[00:24:34] I'm like, okay, that's so much better. And to this day, I just had a friend recently like, oh, you have interstitial cystitis, do you? Maybe you should put away the kale and raspberries. And literally three days later, it went away. I'm like, you didn't have interstitial cystitis. You had oxalate poisoning from eating foods you think are healthy but aren't.

[00:24:54] **Teri:** 100%.

[00:24:55] **Dave:** Yeah, this happens. So I paid for it with a camera.

[00:24:58] **Teri:** Oh my goodness, Dave. Ouch. That is not a story to be repeated.

[00:25:02] **Dave:** Yeah, I want people listening, especially it seems like more women get it than men. And to be clear, I also had toxic mold, and I had had candida before, and oxalates build up

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over time. You can remove them from the body, even probably it's more possible than people believe. And I think I've found a good way to do it.

[00:25:23] And I can share some info about that with you and with listeners, if you're interested. But it takes work and time. And that then has the effect of causing you to have less histamine response, which has an effect of just having less kidney stones, less joint pain, less other neurological issues, and things like that. But it's probably a multi-year process, rid of toxic molds.

[00:25:47] **Teri:** It's a multi-year process, absolutely, especially when we're over calcifying with a lot of remineralization. So when we become out of mineral balance, this will also impact the oxalate burden. Because it's going to hold on to any calcium you're taking in. The only one that I would say is a counter to the oxalate crystals is some level of calcium citrate through dairy. That's why you're so smart with butter.

[00:26:13] **Dave:** I don't think calcium citrate works.

[00:26:15] **Teri:** Really? Interesting. Not supplementally. I'm talking about through dairy.

[00:26:21] **Dave:** Dairy seems to help, but is the form of calcium in dairy primarily calcium citrate?

[00:26:26] **Teri:** It has lot of calcium citrate in it.

[00:26:28] **Dave:** Thought it was more calcium phosphorus than calcium citrate in dairy.

[00:26:31] **Teri:** It's a combination, from what I understand. You may be right on that. " I haven't looked at the phosphorus piece of the calcium citrate."

[00:26:40] **Dave:** Yeah, it's mostly in the protein too, not on the fat. I don't believe butter has a lot of calcium in it, more the fat solubles.

[00:26:48] **Teri:** The butyrate is very good for the bacteria, though, which helps the oxalobacter. So maybe that's indirect. That's the indirect piece to it.

[00:26:55] **Dave:** So tell me all of your strategies for getting rid of this oxalate thing because oxalates are part of it and you can't have glyphosate, to your point, and then we're going to talk

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some more about amyloid anyway, because amyloid pisses me off and so does industrial farming, but so does the vegan diet.

[00:27:11] The fact that torturing animals is bad for them and bad for you and bad for the world is a fact. The fact that you need to eat ethically treated animals to show up in the world the way you can is also a fact. So banning eating animals is dumb and will result in probably the destruction of our species, so we're not going to let them do that.

[00:27:35] But also treating animals poorly is dumb. So the obvious answer is don't eat mistreated animals, but eat animals. And when someone mistreats animals, punch them in the faces. Boy, that would be mistreating a human animal.

[00:27:47] **Teri:** Another animal.

[00:27:48] **Dave:** I thought I had a good strategy there. But don't spend money with those people.

[00:27:54] **Teri:** That's very important. You put your food dollars to vote against or for something. And to your point of what do I eat and stories repeated, you didn't repeat the story in your life because you stopped eating the oxalates. Amazing. And who knew that a good berry-- for me, my oxalate story, and I'll get to the amyloids in a minute, is I started making all these blackberry smoothies. The first two days, I felt great. By the second week, I had shards of crystals under my foot pads.

[00:28:26] **Dave:** Oh yeah.

[00:28:27] **Teri:** I don't repeat that story either. I'm not going to do that again. I will not do that again. So these oxalates, and what are my strategies? So we really have to alkalize. The oxalate crystals, the more we acidify, the more we can endanger or augment those crystals.

[00:28:46] So they say that lemon and lime actually breaks down. It becomes alkaline, and it's a pH alkalinity as you metabolize the lemon. However, this is where the nuanced approach in my practice is really effective in pioneering. If you've had a lot of stones and your kidneys are irritated because you're also not breaking down protein and you have a sulfur issue, then actually any kind of citric acid, which tends to be an emulsifier, can be a problem. And we know that vitamin C in high doses actually will increase the oxalate burden.

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[00:29:24] **Dave:** Yeah. So high dose vitamin C is bad news, guys.

[00:29:27] **Teri:** Yeah. And so be very careful with IVs. So IVs have become the bomb. And we know that vitamin C is an immune builder. It helps with our pandemic. However, IV user beware because those high doses are going to increase your oxalate burden. And this is another dirty little secret, is that it will also increase your iron absorption. Well, guess what iron does now, Dave? It makes amyloids. And iron becomes lipid-like, so it becomes a fat soluble something that's going to further feed the mold, which encases itself in a lipid layer.

[00:30:12] **Dave:** So high iron, we've known for a long time from a longevity perspective, that's bad news. And I did not know the mechanism of action also included making amyloid, but there you go. So it's getting pretty complex, though. So we're saying you got to lower oxalates, and you're saying that lemon and lime, even though they're acidic, they're alkalizing. How does that work out?

[00:30:36] **Teri:** They come in acidic, but the end product is their pH balancing. However, if you're too irritated, then lemon and lime are going to irritate those nephrons, which are the cells of the kidneys, and they're going to hurt your joints. So what we tend to do is we tend to look at what is an emulsifier, which I absolutely love. Salt.

[00:30:59] **Dave:** Oh my gosh. You mean having more salt in water every time you drink water the way we've been talking about for years would be beneficial for you? Oh my gosh, it would be. But what about kidney stones? Everyone knows salt causes kidney stones, Teri? Didn't you read all the papers on how a high-salt diet causes kidney stones?

[00:31:16] **Teri:** Oh my gosh, only a high salt diet if the salt has been demineralized. Oh my.

[00:31:22] **Dave:** You mean you need trace minerals in high amounts when you're detoxing? What if someone put those in coffee? That would be terrible.

[00:31:29] **Teri:** That would be just the-- that would be dangerous.

[00:31:34] **Dave:** Yeah.

[00:31:35] **Teri:** Right?

[00:31:36] **Dave:** Yeah.

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[00:31:37] **Teri:** Absolutely. So we have to redeploy a mineral balance, and we have to get salt back into our diets, folks. This is so important. They've done new studies that mineralize sea salt not only is an emulsifier. It actually helps lower blood pressure. That salt that we've been told was a devil is not.

[00:32:01] **Dave:** One of my big talks about a health topic, in fact-- not one of-- the first major time that I presented to the nonprofit that I ended up running, we would have these top experts come in from previous generation, guys like Dr. Sinatra, Julian Whitaker, and a lot of the early, early longevity guys in Palo Alto.

[00:32:24] This is how I became a biohacker, is I learned from people in their 70s and 80s when I was in my 20s. And I said, all right, I'm finally going to give my own talks. I'm a leader. I'm a curator, but I also want to be a content creator. So my first big talk was about salt, and I went through all these different studies, like the DASH diet. And the closing slide was from the former head of the American Society of Hypertension.

[00:32:50] So this is a doctor who studies blood pressure, and he said, well, I'm just going to measure sodium excretion in a whole bunch of people to see how much they eat instead of believing religious studies about, I don't know, how many sodium did you have yesterday? I'll write that down for you. And at the end of setting 3,000 people for several years, he just said, end of the day, if you want to live longer, eat more salt.

[00:33:12] That was how I closed out my presentation after going through 20 studies on what was wrong with them. So you're right. Salt, at least sea salt or salt from a mine, ideally because of microplastics, is part of it, and it helps with oxalates. How would one know if they're able to do lemon juice?

[00:33:31] **Teri:** So the way you know is that you take lemon on an empty stomach, and if you're-- two things. So one, you have to look at what is the constitution of your esophagus because it does go down acid. If you have acid reflux, stay away from any acid. But if you eat lemon and actually you feel jointy in 25 to two hours out, you are actually contributing to an oxalate crystal burden.

[00:33:56] **Dave:** Are you sure? I think that's nonsense.

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[00:34:00] **Teri:** Food works out fast, Dave.

[00:34:02] **Dave:** I don't think that's why.

[00:34:03] **Teri:** Tell me.

[00:34:04] **Dave:** It doesn't work that fast. The other thing that lemon is known to do is to release histamine from cells. So what you do is you take a quarter of a Benadryl with your lemon juice, and then you don't get sore joints. I'm going to argue that it's histamine, not oxalate.

[00:34:19] **Teri:** Brilliant, brilliant. Thank you.

[00:34:24] **Dave:** You're welcome. I went down both of those paths because of all the mold and stuff I've been exposed to. I've had issues with histamine for years, and issues with oxalate. They tend to go hand in hand. The oxalate thing was probably toxic mold and being a vegan when I didn't know any better, and that's why I'm so passionate about helping vegans see the error of their ways and preventing them from forcing my children onto their sick path that is anti-life. But I'm not judgey at all or anything like that.

[00:34:54] **Teri:** So to your point on that histamine, if you look at a lot of the laminine and grapefruit in phase 1 liver detoxification, that shunts it a little bit. It's going to increase your histamine load. So that is a brilliant observation. Thank you, Dave.

[00:35:11] **Dave:** You're welcome. I know you're a brilliant clinician, and I have a lot of respect for what you do, and so it brings me great joy to say you're wrong because I totally could be wrong when I say that. I just like to be triggering.

[00:35:21] **Teri:** I think it's a yes and because acidity really is--

[00:35:24] **Dave:** It is a yes and. There's another thing that seems to be important, and I like to give credit where credit is due when I can. And this comes from Chris Masterjohn. He was, I think, episode number six or number eight of almost 1,200 episodes. This is years ago. A brilliant PhD, a biochemist researcher, and he just was on in the last couple months.

[00:35:47] And we talked about this a little bit. And he says it doesn't make sense that humans be unable to remove oxalate via some metabolic pathway. It's probably just blocked. And he's a master of blocked pathways. So he said it's probably biotin dependent and here's why.

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[00:36:01] **Teri:** Ah.

[00:36:02] **Dave:** So he has a great paper, and we talked about on the show about what level of biotin you would need to be healthy. And he thinks a substantial portion of people have a block where they need a lot more. So I take way more biotin than most people because my body needs it, but for most people I think it's under a milligram, but cranking your biotin up to the levels that works for you may be really helpful.

[00:36:28] I noticed when I cranked my biotin up that I got oxalate detoxing issues, like really deep pimples, which is a sign of oxalate crystals coming out through the skin. That plus a combination of not just lemon juice, which I was just drinking here. I do about two to four ounces a day, which is a relatively high amount, but I worked my way up to it.

[00:36:52] I also do potassium citrate instead of calcium citrate. You can also do sodium citrate because you don't want too much calcium. So I do individual doses, six grams of potassium citrate a day, which is basically two teaspoons. That's a meaningful amount of potassium, which your body needs if you have enough sodium.

[00:37:12] If you take that much potassium in a low-salt diet, it'll fuck you up. So just full warning, guys, don't go out and do that because too much potassium without sodium can give you arrhythmia, unstable heart rate. It's not good. But having adequate levels of that mineral are very important.

[00:37:29] And the reason you use the citrate form, and you can do half sodium citrate, half potassium citrate if you're worried, is that citric acid is also going to go in. And when I get my levels right, when I wake up in the morning and I pee, the pee is cloudy, which means it's full of oxalate that my body's releasing.

[00:37:46] But I don't have the other symptoms of that. So I've managed to titrate it. But you take away my biotin, you take away the potassium citrate, or you take away the lemon juice, it doesn't work as well. So that's the Dave recipe. But I think your mileage may vary depending on what your body's--

[00:38:02] **Teri:** Exactly. And those are phenomenal. The Teri recipe, which you've asked me just a few minutes ago, is that I take a lot of my Wild-Lytes. So that I invented for a division one

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athlete that could not handle any electrolyte powder because of her sulfate and oxalate sensitivity.

[00:38:25] **Dave:** This is a watermelon-based product, right?

[00:38:27] **Teri:** Yes, watermelon, cilantro, and sea salt. And it is amazing for breaking down the-- so you have the sodium potassium exchange, and we have the watermelon, which is really high in citrulline, which is going to increase your nitric oxide, but it also decreases uric acid. So uric acid is really a bad boy. And then uric is going to cross over with ammonia.

[00:38:49] So if you're eating the bad meats, you're going to get a triple whammy. I also look to vitamin B6 in the form of P5P. That's been known to manage the oxalate burden. So P5P, my Wild-Lytes, super salt, super salt, and I start every morning with a green juice to help to alkalize my body. For me acidity kicks my butt.

[00:39:12] **Dave:** With the green juice, so you put kale?

[00:39:15] **Teri:** No.

[00:39:17] **Dave:** What's in your green juice?

[00:39:18] **Teri:** So I do cucumber because it's got silica. Also helps to bind oxalic acid.

[00:39:24] **Dave:** But it has lectins in it.

[00:39:26] **Teri:** It does, but I'm less worried about lectins,

[00:39:28] **Dave:** Very few people have cucumber lectin sensitivities. I don't worry about it either for that one.

[00:39:32] **Teri:** Lectins, I think on the hierarchy of needs, that's number seven for me.

[00:39:37] **Dave:** Unless you're particularly sensitive to one type, you'll know it. There are people where you take a bite, you know. Then don't do that one. But for most people, I agree. They're not the most important, but high lectin foods are probably bad. But cucumber is not high. So anyway, just a little side thing.

[00:39:51] **Teri:** Cucumber and cilantro. And I love cilantro because it is a liver detoxifier. It's a heavy metal chelator. It is high in chlorophyll. Chlorophyll's going to help oxygenate. It's going

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to help my mitochondria. Even though it's high in iron, it's an iron that is bioavailable. Iron is a very bad thing in the work of Morley, Dr. Morley Robbins, who's wonderful.

[00:40:18] We've collaborated a lot, is that it's the bioavailability of iron. It's when it gets stuck in the tissues. And this is really interesting as a sidebar, but very fascinating in how well-meaning doctors can actually almost kill you, we had a client who had a hemoglobin of two.

[00:40:37] So they said, we need to infuse you with iron. We need to give you an iron infusion. I said, please do not do that. Please do not do that. Your iron is not bioavailable. It is stuck in your tissue. So they gave her an iron infusion. The iron went to 600. She had a pulmonary embolism, and she turned on three autoimmune conditions.

[00:40:57] **Dave:** Oh, that sucked.

[00:40:57] **Teri:** Because the iron turned on the amyloids. The iron turned on all of her biofilm. It turned on Lyme.

[00:41:03] **Dave:** Oh my gosh.

[00:41:04] **Teri:** So it's really important that we understand the bioavailability of what we're bringing into our bodies. And so alkalinity for me is number one. Acidity is going to kick my pettus. And it's probably a combination of histamine and the acid that hurts my-- if I drink lemon juice alone, I can feel it in my kidneys in 30 seconds.

[00:41:23] And I am less histamine-y only until this pandemic, which flipped me a little bit. But acid can be problematic unless you're buffering it. And I think, Dave, the reason why you have such an amazing-- beyond the fact that you were saying it's the phosphorus, right?

[00:41:40] **Dave:** From dairy?

[00:41:41] **Teri:** From dairy. And the lemon is actually the histamine, which you're obviating with the Benadryl.

[00:41:47] **Dave:** I don't have to do that every day. In fact, I almost don't need to do Benadryl with lemon juice. But for people who get that symptom, you would do it just for a few days. And I do take, and I've been recommending for the whole pandemic-- I take Claritin. I think blocking histamine is probably a good longevity strategy at this point. Everyone should be on Claritin if

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you want to live longer, because you have less inflammation and the world's inflammatory right now.

[00:42:10] **Teri:** I think an anti-inflammatory via an antihistamine is phenomenal. One that I love is the DAO enzyme, because if-- and again, back to genetics-- you're missing that DAO enzyme, then an antihistamine of a histamine-2 blocker may not be sufficient. You've got to look to that replacement of that enzyme, which is going to then lower that histamine response. Just how about things are turned on, a light switch turns on another light switch, and all of a sudden you're on fire, it's the similar cascade backwards.

[00:42:40] **Dave:** Right.

[00:42:41] **Teri:** When you turn the histamine response, the oxalates are going to be better, the sulfur's going to be better, and then you can manage these loads differently. Histamine is a very big deal right now.

[00:42:51] **Dave:** So I wasn't going to talk with histamine or talk with you about histamine, but it seems like we should have a little side chat about that. I have found that-- I went really deep on mast cells, which are activated in chronic fatigue. They're activated by toxic mold, and they're activated by COVID or other viruses when you have long COVID.

[00:43:14] So we have this mystery chronic fatigue thing. It's really just these immune cells called mast cells that are like landmines. They're supposed to be activated by a real threat. They get activated by non-threats, and when one of them goes off, it sets them all off. They release histamine. There's our histamine sensitivity.

[00:43:30] So if you block histamine for a while, they start to chill out, and then when one of them gets set off, they don't set off the rest. And about 80% of people seem to respond well to Claritin and Pepcid taken twice a day in the morning and at night. So that was a recommendation I could only put on Telegram during the last three years because for some reason when I put it everywhere else, it got to shut down.

[00:43:50] But it seemed to make people not have long COVID. Oh, sorry. Long Bovid. I'm sorry. That was a mistake. That's what I was talking about just in case. Because censorship is not

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real, just to be really clear. All right. There I've confused the algorithms enough. All hail Zuckerberg. What else was I saying?

[00:44:11] Okay, so we have 80% of people doing that, but it blocks stomach acid, so what I tell people, take the HCL. What else besides the DAO enzyme you're talking about should people be doing that they're not doing for histamine specifically?

[00:44:27] **Teri:** An antihistamine which has been a real long-term play in this world of the pandemic is quercetin. Quercetin is a mast cell stabilizer. Quercetin with bromelain is a wonderful combination because it's also going to help that protein digestion. It's very rare that someone can't do quercetin with bromelain.

[00:44:49] The only time quercetin would be contraindicated is if your phase 1 liver detoxification is so backed up that you got to open up those channels a little bit and then do it with salt. Do it with zinc. However, zinc will increase your iron load, so we got to be careful because we got over zinc over these last several years.

[00:45:10] **Dave:** Yeah, it happens a lot.

[00:45:13] **Teri:** I really like the quercetin with bromelain. Also a big, easy, cheap thing is charcoal, folks.

[00:45:22] **Dave:** One of the original biohacks for years. It probably the third product I made at Bulletproof, was charcoal. Talk to me about charcoal, histamine, and oxalate. How does that work? When do I use it?

[00:45:32] **Teri:** So I love charcoal. If I'm going to do anything when I go out and I'm not certain about who's going to be preparing the food and what ingredients could be hidden in that beautiful plate of mine, I will what I call bookend my meal with charcoal. So I will take it beforehand, and I will take it afterwards.

[00:45:50] It's a wonderful antihistamine. I do not travel, I don't leave my house without charcoal. It's in my purse. It's a binder. It's an alkalizer. It breaks it down, and you are the expert on charcoal way deeper than I am. Not to take it every day because it binds to everything and then you're not going to be demineralized.

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[00:46:10] But in those strategic times, it's a masterful, easy hack, especially if you've set off an autonomic nervous system response for histamine, keeps hitting your gut, and you can't stop going to the bathroom, take charcoal.

[00:46:26] **Dave:** Yeah. If you eat some food like that leftover Turkey, or maybe even worse, leftover pork or leftover fish and you get disaster pans, it wasn't the MCT oil and the dressing guys. It's a very common cause of food poisoning. People don't know it's food poisoning. They just think they have diarrhea because they eat so much.

[00:46:45] Leftovers will do that to you. It's your body going, I have histamine in the gut. Get it out. And you can throw it up or you can poop it out. But if I feel that coming on, like there's any of that, a fraction of a Benadryl will stop it almost instantly. I get it at a lot of restaurants. Restaurant food is not that fresh.

[00:47:02] I don't eat out that often for that reason. It's a magical tool and activated charcoal. I choose one of the two. So if I'm really like, oh my God, something's not right, and you can feel it, maybe you're coughing a little bit, you start feeling your brain shutting down, this is all histamine stuff. So then what I'll do is I'll take three charcoals, four charcoals.

[00:47:23] I don't get constipated easily, so I'll take those. But then I'll take a pink Benadryl thing. They should be compounded, but whatever. And I'll just bite off a quarter of it, and I'll put it under my tongue so it absorbs. And then magically, I don't get brain fog. I don't get the shits, and everything is fine and normal. I'm not coughing.

[00:47:45] And if you're looking at me going, Dave, what are you talking about? This never happens to me. Actually, yes it does. You just think it's normal. You go to restaurants, you feel like shit afterwards, and you just think you're supposed to feel like shit. You are not. There's a whole different level of consistently feeling amazing.

[00:47:58] And once you feel it a few times, you go, oh, maybe I could feel that way all the time. You start recognizing what food does to you. I don't think I'm that delicate of a flower, but I know my mold has set me up for this, my exposure to it, and maybe some genetics, but it's all hackable. And so I love it. We're having this detailed conversation. Some eyes are glazing over. These are tricks that no one talks about.

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[00:48:20] **Teri:** No, they don't. And it's easy. And the antihistamine with a charcoal, quercetin with the charcoal also works. So either of those two is an easy hack. It's short term. Stick it in your mouth. It took about two seconds, and you've just avoided disaster for the next week potentially, because then you're going down all these rabbit holes, going to doctors saying, do I have parasites? Do I have leaky gut? What do I have? You had a histamine response, folks.

[00:48:50] **Dave:** Histamine responses can be all over the map, and they can be neurological. They can be as much as schizophrenia.

[00:48:58] **Teri:** Yes.

[00:48:59] **Dave:** One of the things that taught me about this early on is probably 25 years ago I read this really cool book about rotation diets, which are enormously annoying and something you don't need to do anymore.

[00:49:12] I did them for two years straight where you had class of food everything was. It was like playing Rubik's Cube with your diet. The guy who had written this book, and I wish I'd remembered his name-- it was too long ago-- he had found that he had patients who were schizophrenic, and he'd put them on a clean diet and in a room with clean air, and they'd become fine.

[00:49:33] And then you'd walk in and someone would just breathe secondhand smoke on them, and they would go back to thinking they were Jesus. And like, oh my gosh, that's a histamine response. They're allergic to it. And so maybe that's what's going on with you. And what we just talked about here so far is if you manage histamine levels, you may feel way better. You manage oxalate levels, you may feel way better.

[00:49:58] What about amyloid? You and I both agree chicken is not great food, especially from industrial chickens. And industrial meat isn't great food because it's mean to the animal's bad for soil, and it's probably better than eating crickets, or soybeans, or humans.

[00:50:14] **Teri:** For sure.

[00:50:16] **Dave:** But I want to talk more about amyloids, amyloid excretion, what we can do if there's no choice but eating regular industrial meat.

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[00:50:25] **Teri:** This is a really big passion focus for me because of the massive downstream impact of autoimmunity and acute illness that these amyloids are creating. It's the anti longevity play. If you eat the dirty bird, you're just shortening your life literally. In the United States, I can say that unequivocally.

[00:50:48] Why? So as we talked about, the tortured animals have these truncated protein structures in their tissues that cannot be destroyed by any cooking process that has been created to date. And so one of the things that I believe I was pioneering in is that I had an end stage cancer client who had amyloidosis, end stage amyloidosis, turned to cancer, wrapped around his heart, put him into congestive heart and kidney failure. Two rounds of chemo. Failed. He was given his last rights. Go home and die.

[00:51:25] And somehow they found me. This was over a decade ago, and I started researching, what the heck are amyloids? I'm like, oh my God, where are they coming from? Oh, they're coming from our food supply. Holy moly. What do amyloids do? Oh, they make cancer. Oh, they turn on viruses. They create autoimmunity.

[00:51:40] And so this gentleman that had been given his last rights, the marker of amyloids in his body were light chains. Within three months of reducing the amyloid burden, taking down his histamine, his sulfur, he had the full enchilada, sulfur, oxalate histamine. He had to manage it all. His light chains had normalized. Wow, that's impossible.

[00:51:59] **Dave:** His what?

[00:51:59] **Teri:** Light chains, which are the marker for amyloids.

[00:52:02] **Dave:** Okay, and how do I get that measured?

[00:52:03] **Teri:** It's a blood test.

[00:52:06] **Dave:** Okay. It's a live blood cell analysis.

[00:52:08] **Teri:** Yes, live blood cell. It's light chain. And then I don't even think it has to be live blood cell. It's just your serum. It is a live blood, so it's serum blood. Just go get it, and they'll test your light chain numbers.

[00:52:18] **Dave:** Okay.

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[00:52:18] **Teri:** So this guy is alive a decade later, no cancer. Go figure. So I thought I was onto something. So what else do amyloids do? Oh my gosh. They help spark the viruses that live within us that have been hanging out, leaving us alone because we've all been exposed.

[00:52:37] Viral structures are us. There's more of them than us. Virus, bacteria, fungi, parasites. We coexist. They make them bullies in our sandbox. And then all of a sudden you had mono when you were 14 and now at 40 you have Hashimoto's and they put you on a bunch of thyroid medication, but you can't process that.

[00:52:57] So that thyroid medication makes you wonka and makes you gain 70 pounds because you can't process the thyroid hormone, which is turning on your estrogen, which is making you fluffy and competing with your serotonin. So it's making you super depressed and anxious.

[00:53:12] **Dave:** Wow.

[00:53:13] **Teri:** Right. So amyloids now are contributing to this viral reactivation, but guess what they also do? The fragments build biofilm. They take DNA fragments from our GI tract, which regenerate every four to five days. And those fragments will create biofilm. And that biofilm is going to fortify your mold. It's going to fortify anything that has a lipid structure, candida, strep.

[00:53:48] Strep is tied to a pediatric neuropsychiatric disorder, which I work a lot with. Kids trying to kill their parents, and they are seven. I work a lot with that, and we've been very successful against Candace.

[00:54:05] **Dave:** Against?

[00:54:06] **Teri:** Against this pediatric autoimmune neuropsychiatric disorder. We've been very successful, but we've got to rid the viruses and the bacteria. So it's not just about viral reactivation. It's DNA fragments forming biofilm. And then the biofilm will make more amyloids. So I call it the pinging pong effect. And then the amyloids will help protect the viral structure.

[00:54:26] **Dave:** Hey, I've got a really good recipe for sliced slivered almond chicken breast on top of kale salad. Would you like to join me?

[00:54:37] **Teri:** No poison on my plate. I'll pass. I'll go fast.

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[00:54:42] **Dave:** Okay. If you had to eat a bowl of almonds or a chicken breasts, which would it be?

[00:54:46] **Teri:** Oh my. Oh, that is such a-- hmm. I would say I would eat a bowl of-- Hmm. Oh, that is such a hard question. Pass, Dave. Pass.

[00:54:57] **Dave:** You can't pass. You got to eat one.

[00:54:59] **Teri:** Okay. So I would say chicken is so destructive. And because in the pandemic environment we know this spike protein makes some vectors of amyloids, I'll eat the almonds, and then I'll take a bunch of my Wild-Lytes, vitamin B6, a heck of a lot of salt, some antihistamines, and try to pass the almonds. It's very destructive. But guess what? The oxalates also play with amyloids, but it would be an indirect hit to contribute to amyloids because of the biofilm that they also create.

[00:55:30] **Dave:** It was a trick question. You're supposed to say that you eat the politician who is trying to force you to choose between the two because politicians are made out of meat.

[00:55:40] **Teri:** Oh my God, I love it. I tried to pass. You gave me no choice.

[00:55:44] **Dave:** By the way, anytime a politician says they're going to force you to eat crickets, the answer is you're made out of meat, and I don't eat crickets. That's just how the world-- I don't want to go dark on things like that, but a man's got to eat, and a woman apparently. It's like, you we're just not going to do that.

[00:56:02] And I'm not going to force my kids into some nonsense climate change driven thing when we clearly know who makes glyphosate. We clearly know who allowed it to be sprayed. We clearly know who's doing this. And if they're going to use regulations on this stuff, no, I will not go back to feeling like shit all the time because I spent too much of my life doing it.

[00:56:25] And it was entirely avoidable. I shouldn't have spent \$2 million, first half of that to fix myself. The other half, I just did it for fun to upgrade myself. But the number of people suffering right now is enormous, and we did it, and there are people who knew what they were doing.

[00:56:42] And I got to ask one more thing. You talked about B6. Earlier you said that you use the form P5P, and I've been really vocal about something with B6, and I want to run it past you

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and see what your thoughts are. Pyridoxine HCL, which is the synthetic form of vitamin B6, it's in almost all supplements that are out there that use B6.

[00:57:06] Only 5% of it converts in your body to P5P, which is the active form. The other 95% clogs up the receptors for 1,000 days. That means that if you're not taking P5P or a chelated form, that's basically the same as P5P, you're almost certainly not helping a B6 deficiency. True or false?

[00:57:28] **Teri:** Well, you are absolutely right, is that nobody should be taking a non-chelated or natural form of P5P for multiple reasons. One is B vitamins when they're not utilized will actually hyper acidify your structure. So back to that hyper hyperacidity, also, you'll see high B6 in your blood. You're not assimilating it. So we should get our B6 levels checked.

[00:57:54] If your B6 is too high, you're probably taking the wrong form. A third level of the B6 is-- I work with a lot of MS, and Dave, again, not making claims anecdotally, but we just not only reverse someone's symptomology, but the lesions were gone.

[00:58:11] **Dave:** Why not make claims?

[00:58:14] **Teri:** Well, because then we get in trouble. We're just saying anecdotally.

[00:58:16] **Dave:** If you had a patient who reversed it, that's not a claim. That's clinical evidence, my friend. You're not going to claim you'll cure another person, but you had a person reverse it. That's a case report you can publish.

[00:58:27] **Teri:** Yes, we can publish it. All the top neurologists are saying, how did we do this?

[00:58:31] **Dave:** It's not like it's impossible.

[00:58:33] **Teri:** It's not.

[00:58:34] **Dave:** Terry Wahls is a friend. She's been on the show a couple of times. She's a medical doctor. What did she do? She went on a diet pretty similar to this. It wasn't low oxalate, intentionally, but it probably was lower. But she also used the electrical stimulation, and she eats lots of meat and lots of grass-fed meat.

[00:58:51] And I'd say I have an 80% agreement with her nutritionally and electrical. I use the electricity on myself too. It's one of the biohacks. So she reversed it when she had-- she was in a

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wheelchair, and she runs marathons. So if anyone says that you can't do it, Terry's going to kick your ass, right?

[00:59:06] **Teri:** Exactly. Both Terry's are going to kick your ass.

[00:59:08] **Dave:** I should say both Terry's will kick yours because you reversed it in a patient, and I don't think that's a bad thing to say. You can't claim you can cure everyone, but can you claim you cured someone? Yeah.

[00:59:19] **Teri:** Absolutely. And the four neurologists were totally dumbfounded. It was oxalate, sulfur, and protein because he had turned on the varicella virus that attacked his nervous system. And so now this 39-year-old protein shames his friends. If you're eating chicken, who turned on the amyloid? Who turned on the varicella? Who made me not be able to walk?

[00:59:41] **Dave:** Wow. So protein shaming is a thing. So just online, someone was saying some nonsense about protein. I don't even remember the details of it, but it had to do with plant-based proteins are the same because protein is protein. And I'm like, that's awesome because that means spider venom and gluten are high protein. We should eat those. It's so stupid.

[01:00:05] Anyone who's like, high protein, unless you know what the protein is, it doesn't matter because some proteins will kill you. Now, what's the best kind of protein? Is it grass-fed beef from wild caught cows that-- okay, well, that's why I live in Texas. They're wild enough here anyway.

[01:00:23] **Teri:** They're very wild in Texas indeed, Dave. So my observations and just the evidence from the practice is regenerative farming will take away the problem that we created, duh. Duh, duh, duh. These cows didn't come up, haven't been on the planet for millennia, and all of a sudden started breeding amyloids. And these chickens the same.

[01:00:44] So if we get back to regenerative farming, we will get back to living as nature intended, which is actually the subtitle of my book. And while I say now in this world of a pandemic where we are amyloid burdened on so many-- I call it the disruptive mirror effect, so it's disruptive, we've got the amyloids coming from the food supply.

[01:01:05] Now we know clinically in the literature, hey, spike protein makes amyloids. Go figure. Why would we want to overburden ourselves? Not being wild or a regenerative eating

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methodology is non-negotiable in my book. The potential bad thing is too big. It's way too big. And so living as nature intended is how each of us should be voting with how we decide to spend our money on food.

[01:01:37] **Dave:** I like that, but we're not living as nature intended. We're on Zoom right now looking at blue light screens. We do other things to help overcome limitations, so I would like to know. There are at least half of listeners right now are not in a position to always buy grass-fed meat because it's damned expensive.

[01:01:58] Some bad people, we don't know if they were funded by the cricket soy lobby or another government that hates our people, or maybe both, or maybe they're the same thing, but someone's been going through and burning meat production, dairy production, and even chicken production facilities, thousands of them across the US, which is one of the reasons food's so expensive, aside from the 40% of our currency that was printed last year or created out of thin air, which is basically stealing from your bank account.

[01:02:26] There's all that stuff going on, but they can't afford it. So let's say I've got two bucks a pound to spend on protein for my family, and I can buy you-- you can go to the Costco Business Center and you can buy decent quality beef cuts, larger pieces. You got to cut them up yourself, but you can buy them for two bucks a pound. It's very affordable, but it's going to have amyloid in it. It's not going to be organic. What is my best strategy for eating that and still thriving?

[01:02:54] **Teri:** Okay, so great question. And I'm a Cuban refugee, Dave, so I know how to stretch my food dollar. So I think community is key here. If you go out and buy a regenerative cow, regeneratively-raised cow, and you break it down among your friends, you can get to that very, very low price point. So community is key here. We're not going to all buy one cow, but we can distribute it across our friends. I'm doing it in my own neighborhood.

[01:03:23] **Dave:** It's still six bucks a pound.

[01:03:24] **Teri:** It's still six bucks. That's part one. And then the second piece is you help the food stretch. And if you do the ground, which let's say the ground bison is 9.99 a pound, if you can get it-- now, it's probably 11.99-- then you take vegetables into that are non sulfur, non oxalate, and you stretch that food dollar.

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[01:03:49] **Dave:** Vegetables are more expensive than meat on a per calorie basis.

[01:03:52] **Teri:** On a per--

[01:03:55] **Dave:** It's five bucks for a little thing of arugula, and it has seven calories in it.

[01:03:59] **Teri:** That's true. The arugula is expensive. However, if you look at a zucchini, a zucchini's not expensive. It's going to cost you maybe a dollar. If you look at growing your own tomatoes, tomatoes are high in lycopene. They're higher in histamine, but because they're also antiviral, again, back to the hierarchy of needs--

[01:04:17] **Dave:** You can with the tomato, the nightshades even. Interesting.

[01:04:20] **Teri:** I don't have a nightshade. I really think that sulfur and oxalate trump the nightshades. And I've seen it over and over again in my practice. And again, the high antiviral nature of tomatoes puts them into a happy place.

[01:04:34] **Dave:** Wow.

[01:04:35] **Teri:** So the zucchini, the yellow squash, the cucumber even, you stretch it. It's not going to be perfect. And then certain beans, not black beans. Those are terrible.

[01:04:49] **Dave:** People eat beans? All right. And my phytic acid, oxalic acid, farting friends.

[01:04:55] **Teri:** Certain beans.

[01:04:55] **Dave:** We're not going to like you after this. All right, so beans. Geez. Should we start smoking too?

[01:05:01] **Teri:** Well, stretch your dollar. Not all beans. The adzuki bean is the highest in protein. It's very low in histamine, so not all beans. Black beans, don't go near. Soy, of course, is an oxalate, and it's terrible because it's high in estrogen.

[01:05:15] **Dave:** Pinto beans. Should I go back to my New Mexico roots and get some lard and refried pinto beans?

[01:05:20] **Teri:** Not lard, but I believe--

[01:05:23] **Dave:** Are you kidding? Have you seen my pigs? My pigs are legit. They have lard that'll make you cry.

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[01:05:26] **Teri:** Okay, if they're happy lard, not if you're talking Crisco.

[01:05:29] **Dave:** No, industrial lard is terrible. Okay.

[01:05:31] **Teri:** Not industrial lard, but actually tallow is fantastic. So we can really stretch our dollars. And I've gotten to be able to make a meal for about \$3 and 57 cents. And I've posted it on my Instagram with, it's very healthy. We're not going to be perfect, Dave. So this is the thing, is that--

[01:05:49] **Dave:** Perfection not required.

[01:05:51] **Teri:** Right. Perfection not required. And so what is the least worst option? And if I'm trying not to eat an amyloid chicken, that's going to cost me a lot per pound anyway. Chicken breasts are very expensive. Industrialized beef is number two. But if you can get to, like you said, a Costco that's even organic, you're getting better.

[01:06:12] It's like, how do we mitigate what we can mitigate? And again, not going to be perfect. When I go out and I have nothing on the menu, I will go for a grass-fed beef, and I'll be okay. Can I do that every day? No. But I can do it enough and take my charcoal, take my anti oxalates, take my digestive enzymes that are bromelain-based because a lot of enzymes that are plant-based are actually made from aspergillus, so it's going to be mold that's going to make worse problems.

[01:06:39] So it's really understanding, where do I cross over, and how do I feel. Because once you start taking the large burdens away, then you can manage the other burdens. Now, if I have to eat industrialized meat, if I'm forced fed, then I'll take serrapeptase. It's a proteolytic enzyme. It's going to help break down that amyloid burden.

[01:07:00] **Dave:** With the food or on an empty stomach afterwards.

[01:07:02] **Teri:** So proteolytic enzymes typically are taken on an empty stomach. I would take bromelain with my food, a bromelain enzyme with my food and a proteolytic enzyme two hours after, one hour before my meal. So you do it in between, so you're actually breaking up those structures.

[01:07:20] **Dave:** For most of the last 20 years, I've had between five and 10 of the large capsules of serrapeptase every night before bed. And just because I learned about this at that

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longevity, nonprofit group in Palo Alto that I used to run like, oh, this is a really good strategy because it breaks up thrombin and fibrinogen, which caused blood clotting.

[01:07:45] And before I was 30, I was diagnosed of being at high risk of stroke and heart attack because I had excessive clotting in my blood. I'm like, I'm not going to do that. For people listening, if you're eating industrial meat, you might want to do that. If you fly a lot, you might want to do that. If you were unwillingly subjected to a multi-billion-person clinical trial of a certain compound that shall not be named, you might want to do that because the data shows you might magically have more clotting, and this stuff breaks up clotting, and it also can break up amyloid.

[01:08:18] So this would be a really good longevity strategy. It's not cheap, but you can buy big bottles of it online for relatively cheap now. So the question is, which is cheaper? To buy relatively large cuts of affordable, organic, if you can, or even non-organic beef, and then take serrapeptase.

[01:08:36] It's still cheaper that way because serrapeptase is 20 bucks for a month's supply. So if you were to say, all right, this is my budget for meat, you're probably going to work out that way. I highly recommend organic or grass-fed. And if you buy the cheaper cuts from a farmer or the ground, now you can do it. Got to ask you this, though.

[01:08:55] **Teri:** Another thing we can do is we combine-- again, how do we stretch our dollars? How do we get creative? You can have a grass-fed or regenerative farm meat with an amyloid, a less perfect cut of meat, and you mix them. Because the overall amyloid burden will be lowered because you're going to have one with a lot less.

[01:09:17] So how do we do this? How do we stay-- you're right-- living as nature intended? "Nature" is now-- I put nature in air quotes because we are in a high tech-- really dirty planet on many levels. And so we have to get really creative. And so nature is right now denatured. And so how do we use what we have, be really intelligent about it, and use the technology?

[01:09:43] So part of the Wildatarian ethos is using the intelligence of technology, with the wisdom of our ancestors, and bringing it into the present moment, so it becomes a yes and. We can coexist and thrive. I'm very hopeful for our world if we can raise-- and this is back to your mitochondrial, we got to keep our mitochondria happy.

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[01:10:09] And how do we do that? If we do everything right and we live in a miserable existence of negative thinking, we're still going to express everything and turn on those viruses, and we're going to be as sick or worse.

[01:10:25] **Dave:** I love what you're saying. We've gone through so much really cool knowledge here. And guys, if you've been following some of the standard biohacking practices, like taking P5P versus B6, using activated charcoal, taking magnesium, eating only grass-fed beef for the past, in my case, it's been almost 20 years now, the differences add up over time, and you don't have to do everything right.

[01:10:52] On rare occasions, I don't have grass fed meat. I really don't eat chicken very often. Maybe once a year. I don't know why. Because either it's some heritage breed or someone made it with love and whatever. I can handle that. But if I eat chicken a lot, it just doesn't feel as good.

[01:11:07] I'm managing this thing about oxalate, the thing about histamine with Claritin. I am almost to the point of adding a daily dose of Claritin as part of my longevity stack forever, because the downside's very low and the risk of having the excessive immune response just from the world we've created is pretty high.

[01:11:27] So maybe that's more important than a statin. In fact, I would probably argue all day long. And every cardiothoracic surgeon friend is like, Dave, fuck you, buddy. And I'm like, all right, guys, I didn't need to put out of business, but you're doing it wrong. We can debate that later. Teri, I greatly appreciate your work. Wildatarian Diet, I think that was your most recent book. Is there a new one coming out?

[01:11:48] **Teri:** Not. I'm building my teaching model, the Cochrane Method. It's 500 pages so far. It'll be a teaching model.

[01:11:55] **Dave:** It's going to be cool. And Wild-Lyte is the electrolyte powder that you talked about earlier. W-I-L-D-L-Y-T-E.

[01:12:06] **Teri:** Very good. Yes.

[01:12:07] **Dave:** You've sent me a couple of those, and that's the watermelon with cilantro thing. And just for completeness there with the Wild-Lyte stuff, how many servings is in one of those things? It's a little canister.

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[01:12:22] **Teri:** it's, Yeah, it's about 50 servings in a can.

[01:12:25] **Dave:** Got it. So that's how that stuff works. And anything else that our listeners should know?

[01:12:32] **Teri:** I really think that we're so grateful to you for opening up the door on the oxalate thing. This is a really big deal, oxalate, histamine. You've been pioneering the oxalate, histamine mold, and now more than ever, I just want to really applaud you, Dave, because it's time to really get real on this.

[01:12:54] **Dave:** I appreciate the pioneer thing. On the mold thing, I've been a big voice, for sure. And, and it's funny. The first chapter of the Bulletproof Diet, it's the big six trends in food. They're all there, but I can't say that I went as deep as possible on all of them. In fact, even the data on oxalates wasn't very good back then about what was in what food.

[01:13:16] So there's a book by Fallon recently that has more about-- it's called Toxic Super Foods-- oxalates. I'm like, oh, well, look, there's more databases than the last time I looked. This is good stuff. I would just say my job is to understand directionally and then to find and curate experts and then come up with best practices across a lot of stuff that you're going to do.

[01:13:37] So I don't have to be the expert in everything, but if it's about food stuff, I'm pretty good. But brain stuff, I'm pretty good. Mold, I'm pretty good. And the other stuff, I'm getting good at oxalates and histamine, but I think there are people who are far better experts than me, and I'm looking to connect with them and learn from them. So thank you for teaching the whole audience here all your good stuff.

[01:13:56] **Teri:** My pleasure. I'm hopeful for the future. We just got to stay positive and be smart.

[01:14:00] **Dave:** And get wood chippers.

[01:14:02] **Teri:** Get those wood chippers, fertilizer time.

[01:14:07] **Dave:** I'm just kidding. I don't want that soil anyway. All right, guys. Thank you for listening to this episode, and I'll keep bringing you the good stuff and some things hopefully you haven't heard anywhere else because that's why you're here. You want to hear it here first. See you on the next episode.

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