

Announcer: Bulletproof Radio, a state of high performance.

Dave: You're listening to Bulletproof Radio with Dave Asprey. Today's cool fact of the day is that chemical exposure early in life can actually change your health problems later in life. It's well-known that BPA, or bisphenol A, chemical that is common in plastics is tied to a whole bunch of bad stuff from diabetes, heart disease, and now we found out how early that can start. Researchers at Baylor College of Medicine in Houston exposed mouse pups ... I don't know why they call them pups, it should be like mouselettes, to the chemical BPA only five days after birth, which is a time in which their livers develop, and as long as the BPA exposed mice ate mouse chow for the rest of their lives, they were healthy. But if they switched the BPA-exposed mice over to a high fat diet as adults, those mice got larger livers, higher cholesterol, and more metabolic problems than mice who ate a high a high-fat diet but weren't exposed to BPA as pups. I'd just like to point out here that a high-fat mouse diet is not high healthy fat or UN-inflamed fat, it's actually a high crappy fat diet, which is a problem in labs.

Dave: I'd also like to point out that all mouse studies are suspect because the big variable that no one controls for is that when women feed mice they behave differently, and they have different study outcomes than when men feed them. Oops. No one forgot, when they say we control for all variables, that one they missed.

Dave: And this is kind of interesting because we're learning more and more about what plasticizers do to you, and bottom line is they suck, but for babies they're even worse. So, splurge on the glass baby bottles already.

Dave: Today's guest was on episode 136 of Bulletproof Radio. That's almost 500 episodes ago, which is kind of mind boggling in and of itself. And one of my favorite evolutionary biologists, and her name is Nora Gedgudas.

Nora: Gedgudas.

Dave: Ged-

Nora: Close enough, close enough.

Dave: Nora, I've never said your name properly. Say it one more time.

Nora: Gedgudas.

Dave: Gedgudas, man. That is tough. Normally people just call me David Ass-spray, and I got over that in seventh grade. But I can see you're still struggling with that name-

Nora: I've heard every possible permutation of... pronunciation of my name that you can imagine.

Dave: Well, my apologies because I-

Nora: You've done better than average, actually.

Dave: I've read your books, if that counts. I have to say early on before we get into your bio; my wife, Dr. Lana, you know Caroline's good trained doctor, co- author of the Better Baby book with me about what we can do before and during pregnancy to have healthier kids who help with genetics. She's like, "Dave, you're talking to Nora? Like, she's my favorite author in the field." And so she's a huge fan, and just asked that I call that out. So, there you go Lana, I did it. You can check that one off the-

Nora: Thank you Lana, your check is in the mail.

Dave: Nora is pretty well known in certain circles, and biohacking and paleo and things like that, as an earlier adopter of a low carb, high-fat diet. She looks at evolutionary physiology, biochemistry, metabolism, nutrition, and on top of that, she's a neurofeedback specialist with 20 years of experience. Certified gluten practitioner, and works out of Portland, Oregon. I heard that the city official flower of the city of Portland is... what is it?

Nora: Well no. The state flower of Oregon is mildew.

Dave: Is mildew, excellent.

Nora: Yeah, yeah, yeah.

Dave: We were talking about how to fight environmental mold. That's one of the evolutionary pressures, which is pretty cool. This time, instead of talking about neurofeedback and psychedelics, and paleo all at the same time, which was our last interview. We are going to talk about a new thing that Nora's been working on called Primal Genic.

Nora: Yes. So, one of the first things I want to comment on is that I wasn't just one of the earlier adopters of a fat based, basically ketogenic approach to ancestral nutrition. I was the first one to write about that in the genre. Many, many years ago. I think my first book came out in 2009, a self-published version of it. Then-

Dave: Primal Body, Primal Minds?

Nora: Yeah. Then, I got approached by the current publisher and they just said, "We love this book. We'd like to do it up right." It was their number one book for many years until fairly recently.

Dave: Nora, as a professional *New York Times* author kind of guy, and one of my different hats, it is damned difficult to get a self-published book over to a real publisher. It's almost unheard of.

Nora: It is.

Dave: So, the fact that you did that is incredibly difficult. So, hats off.

Nora: You know, I had no... I had really no intention. I mean, I just thought you know, I have this stuff, I've got to put it on paper. I want to put it in a published form so I can feel good about it, and hand it out to people. I figured, okay, this will be a nice little supplemental source of extra cash or whatever. I had no idea it was going to do what it did. It just took off. You know? Next thing you know I'm being asked to speak at UCLA, and travel to Australia. I mean, it's just... it's been a crazy, crazy ride.

Dave: It makes me feel good when the people who are originators of a concept get a chance to go out and spread it before it gets sort of borrowed and diluted. It's funny because your idea behind Primalgenic is around the co-opting of paleo and ketogenic. We're recording this live at Paleo FX. My talk was all about why keto, as you know it, is dead. Here's what's happened when people who don't understand it say, "Oh let me just make a keto product."

Nora: Exactly. Exactly.

Dave: Yeah.

Nora: This is the problem, is that for when I started out talking about this in the ancestor health sphere, you know it was like I was a voice in the wilderness. Nobody really wanted to hear it because you know, we've got the 20 something paleo crowd who love their num-nums and yam-yams. It was just very hard to convince anybody that going low carb was a good idea. There were a number of controversial things that cropped up, that created a big viscous back and forth. You know, I didn't participate in that but it was like crazy-

Dave: You're a neurofeedback practitioner, which means you understand more about psychology and the workings of the human mind, the unconscious workings than the average person writing about butter.

Nora: Right. I'd spend more than 20 years in the trenches working with real suffering people with real problems coming to me for help. One of the things I learned... I mean, neurofeedback, as you know, and we're also connected with the Authmers, who are my family. I mean, Siegfried and Sue are more family to me than my own family in some ways. It's an incredibly powerful, powerful modality, but I could be doing the most perfect protocol in the world for someone, it's not going to put a nutrient there that's not there. It's not going to take away some interfering substance that doesn't belong.

Nora: You know, the brain and the body need certain raw materials in order to function. What I found was that all too often I was running into... you know, working with people and I could see that whatever it was that they were doing with their diets was absolutely effecting all of this. So, I found that when I applied what I know about the nutritional side of things, where people were open to that, the results were much faster, they were more powerful, and they were more enduring for people.

Dave: It's the same sort of thing at the neurofeedback facility that I started. Very different than [inaudible 00:07:21] you do, and perfectly compatible. So, I'm just saying not competitive in any way.

Nora: Sure. Right.

Dave: Five days, 10 hours a day, but if I don't feed people right... we have to bring in an executive chef because they can't do the work if they're not fed right.

Nora: Totally, right. A brain doesn't have the fuel that it needs to do the work, forget it. It's like a waste of time.

Dave: So, here's where I was going with that question about being a neurofeedback person. I'm starting to see some disturbing similarities between what I'm going to call the keto bros, the "Dude, my ketones are higher than yours. If you ever eat a carb again you're a bad man." Like really, just kind of vile personal attack stuff out there. And they're starting to sound an awful lot like another crowd when I used to be a raw vegan and all that. But there might be some angry vegans, stereotypically speaking. I mean, [crosstalk 00:08:09] I've just heard about it. I've never seen one online or anything.

Dave: So, why is it that there's these incredible just warfare things online, both at radical ends of the spectrum. Like, if you eat a carb again you're a bad person, or you know, if you eat a drop of fat you're going to die.

Nora: Right.

Dave: Where's the anger in the bile coming from?

Nora: Well, the anger and the... well.

Dave: Well, the bile is not coming from vegan.

Nora: No, it's not. Well, right. I mean, without being overly disparaging, I mean, I can tell you from my more than 20 years of experience in working with the brain and nervous system... and by the way, Portland is number two in the country in terms of being a vegan center.

Dave: Yeah.

Nora: Right? By far, the most damaged and trackable brains and nervous systems I have ever worked with have been hard core vegetarians and especially vegans. You know, we're talking about extremely agitated nervous systems.

Dave: Yeah.

Nora: And you know, once things get past a certain point, you know we can store maybe five year's worth of B12. You deplete that, some of the neurological damage that occurs past

a certain point is not necessarily reversible, you know? So, by the time a lot of these people came to me, they were willing to do anything.

Dave: Yeah.

Nora: But it's really, really hard past a certain point to bring somebody back out of neurodegenerative processes. So, I mean, I think that that's part of it. There is, you know, sympathetic over arousal. I know you know this language. Is just epidemic in that population. It's epidemic anyway, but in that population, what you have is brains and nervous systems that are just on overdrive. They're inflamed.

Nora: I mean, you know, a vegan diet of necessity is a high carbohydrate and very high anti genic diet. So, they're consuming a lot of substances and grains and legumes and whatever else, a lot of lectins and things like gluten and whatever else, that are going to just wreak havoc.

Dave: They're irritants, and I know my experience as a very well educated... it was raw vegan. Eventually I became a omnivore, which helped a lot. But I did develop more autoimmune conditions. I had to fight all these different problems.

Nora: Absolutely.

Dave: But the agitation is energizing. Like you feel good, if you were asleep before-

Nora: Well, you think you... so, [crosstalk 00:10:25] between energy and nerves, right?

Dave: Yes.

Nora: It's like the difference between waking up and having... you know your brain has energy and you feel like you can just go out and get things done. And, no offense, but drinking 10 cups of coffee, whether it's Bulletproof or not, you know your nervous system is going to be rattled. You're going to think you have energy but it's not really energy.

Dave: It's pretty much cortisol and agitation, and very sympathetic-

Nora: Right. So, I mean, if you feel like you're not worth a damn without that morning, then I challenge people to look at that a little bit more closely. I'm not opposed to coffee at all, necessarily.

Dave: I was going to just ask you to leave for-

Nora: Yeah, I know. I see the bouncer coming my way. It's okay. You know, call them off. Call them off.

Dave: I've had anti-coffee people on the show. They had a hard time speaking in complete sentences but they were on the show.

Nora: Sure. Sure.

Dave: Just kidding.

Nora: I'm not... I mean, I'm actually more of a teetotaler, but I'm not anti-coffee, but you know it depends on who you are. All these things are-

Dave: Yeah, it's epigenetic and also, if you need it to survive you probably have an issue-

Nora: That's probably a problem, yeah.

Dave: Yeah. Totally with you there. So, why do you say that paleo and keto are going to be co-opted? In fact, you've been saying it for a long time. What does that mean?

Nora: Well, you know again, so for years I felt as though I was struggling to fit myself like a square pig into a round hole, when it comes to the whole paleo genre, trying to distinguish what my message is as opposed to kind of a lot of what else is out there. What's happened with those two fields, it happens really with everything sooner or later. It becomes co-opted by industry, right?

Nora: It becomes popular enough, industry sees an opportunity, looks for all kinds of ways of marketing stuff, and next thing you know, you've gone from real food to cookies and cream keto bars, and you know, paleo friendly brownie mix. There is a lot that is catering to what people want to hear as opposed to what they really need to know. I'm very... I'm purist. I'm very foundational and very functional. I'm very interested in taking a health optimization approach and multinational corporate interest really don't stand to make a penny from me.

Nora: It becomes a conflicted kind of a thing, when something becomes really, really popular, all kinds of stuff happens. You have also people entering into the field that don't necessarily know very much.

Dave: It's a big problem.

Nora: Yeah, and they cut and paste from other people's work and pretend to be an expert. Maybe they have good marketing expertise behind them, and they can make themselves look good, and they can sell a bunch of stuff and it muddies the waters. Pretty soon, people are hearing this from this person, this from that person, it all becomes confusing. And, eventually, it all gets relegated to a fad and disappears in the midst of history is just, oh it was that fad that happened.

Nora: I desperately don't want that to happen. I created the... I trademarked the term Primalgenic to help divest myself from these now kind of commercialized versions of paleo and keto, that I'm really not comfortable with aligning myself with because there's just too much confusion and too much misinformation and disinformation, whatever. I don't want to be conflated with all that.

Dave: One of the things that disturbed me the most is a keto cookie, that's... and okay, I make some pretty damn good apple pie collagen bars, with something like six grams of carbs in them. And it's you know, collagen from grass fed, everything. Like okay, I like eating those and I don't have a problem with that. Yeah, they do have some [inaudible 00:14:08] whatever we're using in that specific one, which some people say you should have no taste for sugar. Like there's levels of that, but I feel confident when I give those to my kids, right?

Dave: Some people would say those aren't good, but there's a keto cookie out there that's made out of wheat gluten as the primary protein it.

Nora: Oh my god, yeah.

Dave: You're like come on! If you label that keto and someone eats five of those a day, and they say, "I didn't get any results with the keto diet." Then, you've maligned an entire industry just because you've made a product that had higher margins but was actually bad for people.

Nora: There's more of this happening now than there is wood work for dudes out of... you know, I've kind of... I've had it up to my gills. So, I'm continuing with my message and it's not motivated by marketing interests. It's really, my intention is to do the right thing in the right way for the right reasons. You know, come hell or high water, and it may not be what people want to hear, but it's going to be the truth is, I have discovered it, you know and as I'm seeking to communicate it. And it's not necessarily so important for me to be right as it is important for me to be accurate.

Nora: So, when I'm going through and I'm researching stuff, whatever, if I make a statement about something... I mean, I've become worse over time. I mean I'm more and more anal it seems like every day about stuff. I research the crap out of anything that comes out of my mouth now. I'm just really, really careful about being accurate as best I can be.

Nora: I mean, there... common phrase-ology now in the mainstream media, you know the science is settled. Settled science is an oxymoron. The science isn't the last word, it's the latest word.

Dave: Yeah, it won't be settled ever.

Nora: Not ever.

Dave: That's why it's science.

Nora: By very definition, it shouldn't be. But I'm doing the best that I can with the information that I have, and I can say that unlike a lot of other people who continue to change their message with the going trend, that my message really hasn't changed fundamentally from the start. But it has evolved over time. So, what I've done is you know, now I've

created a program. I'm calling it three week, meal by meal, total health transformation program. The Primalgenic Plan.

Nora: It is... you know, I just sort of had this-

Dave: You sounded like a marketing person there for a minute.

Nora: Do I sound like that? Well, you know, so okay. So, I mean, I [crosstalk 00:16:27] better language.

Dave: Yeah.

Nora: It's about communicating, right? It's about effective communication and reaching people in ways that they want to be reached.

Dave: Nora-

Nora: But the quality of what I've created and what I've done is like, I'm telling you, there's no fluff. I mean, a lot of marketing there's fluff. There's no fluff here. This is intense information, lots of really high quality information so that people not only have a little bit of handholding going through the process of adopting a health optimizing diet, that I believe is fundamentally foundational for everybody. But also, that they're going to get a lot of the why and where for... they're going to understand why they're doing what they're doing.

Dave: The good news is that if you created all this knowledge and you didn't put it in such a format that people would consume it, it doesn't matter because knowledge that no one ever receives is useless knowledge.

Nora: Very true.

Dave: And the second thing, just because of the success and the visibility of Bulletproof Radio, of my company Bulletproof and not a lot of food companies have raised \$68 million in venture funding, and things like that.

Nora: Yeah, yeah, show off.

Dave: Well, it's not really showing off.

Nora: I'm kidding. I'm kidding.

Dave: It provides access to things. So, I've had a chance to sit down with CEOs of some of the largest food companies in the world, okay? And you walk into these meetings and you're like, these people are destroying the human whatever. But you sit down and you talk to them, and you're like actually, they're ... they have kids. They have their own autoimmune issues or whatever. They are keenly interested in oh, what can I do for myself? What can I do for my employees? What can I do for my customers?

Nora: Exactly, they're human beings.

Dave: They're human and they actually want to help, and to a T, they all feel a moral obligation to create the best stuff that people will buy. And, the flip side to that-

Nora: To the degree to which they understand it. I'm actually very good friends with somebody who was a CEO of three different major, major, major companies. And, you know, they said to me, "You know, Nora, I swear to you, I did not know how bad trans fats were." But he says, "I promise you there were people around me who knew and said nothing."

Dave: Yep. There's group think, and what my experience has been that the CEOs are curious, they're interested but in one of the big companies there was [inaudible 00:18:40] look, saturated fats are just bad. They're were not going to change. I'm like great, this is on the list of companies that will be disrupted. It is going to happen, because saturated fats make people feel good, and they are not bad for you.

Dave: If they are trans fats that are saturated it's a different animal.

Nora: Or interesterified fats, which are now replacing the trans fats, right?

Dave: Yep. All the bad things you can do, but the thing is, they want to do it. They also say, "Look, if I do things that make the food cost twice as much no one will buy it. Then, someone else will make junk food." So-

Nora: I would.

Dave: Well, you would. They say that, but to them, no one. They're saying, "Well, I want something 99% of people will buy and it's got to be the lowest possible cost." The bottom line is, there's a certain point you go below this cost it's not okay to sell that. I think, I really do think, these companies are waking up to that because they see like, Campbell's soup just dropped 20% in sales. People are saying, "I just don't want it anymore. It's not food."

Dave: So, I think your message, our message, the message that our listeners share, they're going to let you know what's going on. The evolution is happening, it's just slow.

Nora: Well, the thing about corporations is that they really have only one obligation, one obligation only, and that's profit for their shareholders. It's not you know, it's not to create the best quality whatever just because people are asking for it. I don't trust them to give me what I ask for, even if I demand it, or even if lots of us demand it. What they're likeliest to do is to give us what they think we want to hear.

Nora: They'll use the language that they think will most effectively reach, but in the way that it maximizes the profit for their shareholders. So, I don't know that I ever trust the major food manufacturers to do the right thing. I just don't necessarily.

Dave: So, I don't trust them to do the right thing but I know they want to do the right thing. And I know that they'll respond to market forces. What that means is that if you do the right thing, and I do the right thing, and our people listening today and the people who read your books, they go out and say, "You know what, I'm not buying that." The food supply will shift. That's the only way that it'll shift.

Nora: Yeah, and I guess we may have to agree to disagree.

Dave: Yeah?

Nora: I don't think that the market forces are going to give us what we're actually asking for. I think that they are learning more about how to tell us what we want to hear-

Dave: Paleo brownie mix story.

Nora: Exactly. You know, that would be one among many. You know, like for instance the whole transfat thing. Now, everything is zero transfat, whatever on the label. Then, you look and this was before the law changed last year. You look at the label of the microwave popping corn and 0% transfat on the label. You turn it over and partially hydrogenated soy bean oil is the first ingredient on the list, because there's only a certain... because the labeling laws are basically written for them not for us. The labeling laws are written in such a way as to allow them loop holes big enough to drive an aircraft carrier through, but they can state things in a certain way to mislead us into thinking that something is not there when it is.

Nora: Okay, zero... now zero transfat because the laws are saying no transfat in the food. Hopefully, they're following suit, but they've switched over into interstratified fat, which is every bit as bad, if not worse than the transfat was. So, again, you know, I think that if they can twist things around in a way that convince us to buy whatever, without actually having to spend more money and change practices to truly sustainable and health generating methods, you know they'll do it. They'll do whatever they can get away with.

Nora: And I don't mean to sound so cynical and dark about it, but I really think that's the way the system works. So, for us, you know it's important to understand that nobody is coming to save us, but we can't ever expect in my humble view anything to change from the top down, like ever because there's very little motivation for that. I think what's incumbent upon us, in the face of so many things we feel like we can't control, is to take control of what we can. Be aware, understand as much of this as we can, and find ways of strategizing our way around the system. You know, develop that first hand knowing of where your food comes from as much as humanely possible. And education yourself, and take responsibility for as much as you possibly can.

Dave: When you get to Primalgenic-

Nora: Yeah, yeah.

Dave: Talk about these 12 pillars.

Nora: Yeah.

Dave: What's the first one about uncompromised dietary quality? What does that mean?

Nora: So, uncompromised dietary quality means you're consuming, for instance, the animal source food you're consuming are coming from animals that have been themselves feed a diet that is optimal for them, right? Natural forage. So, grass fed and finished. You know, naturally are wild caught, or hunted or whatever. Also, when it comes to your plant based foods, you know organic, bio dynamic.

Nora: The more you have a first-hand knowing of where that plant food came from the better.

Dave: I think I'm doing that right. If people go to my Instagram page, Dave.Asprey, there's a picture of a pig's head. I raised the pig on my small family farm, and fed it actually brain octane oil and activated charcoal every day. It practiced intermittent fasting on occasion. Had twice the-

Nora: Of course, that'd be totally natural for a pig.

Dave: I mean, it would be, right?

Nora: Right, yeah.

Dave: It had twice the meat that the butcher expected. He was like, "How did you do this with this pig? This is the most beautiful thing I've ever seen."

Nora: Right.

Dave: I cooked his face and ate it. It was delicious.

Nora: I'll bet. Excellent.

Dave: You say nose to tail in your books.

Nora: Nose to tail baby. Yeah.

Dave: I did it.

Nora: Yeah, again that's part of the equation too. Understanding that part of what it means to eat an ancestrally based diet is to understand that it's not just about steak and chicken, right? That there... our ancestors ate a lot of organ meats, and they did bone broths and they ate bone marrow and all of that. In fact, we have big brains... well, many of us do anyway. You know. I won't name names to the exceptions but, politicians and whatever. You know, the... it's so important for us to get these foods from the highest quality sources, and then understand that we need to develop a taste for things that we've consumed over the last 2.6 million years that now are not so much commonly consumed in the food supply. But, we have to go a little bit out of our way to find really

high quality organ meats, and make our own bone broths at home, and all that stuff, in order to get all of the nutrients that we're supposed to be getting.

Nora: There are ways of doing it. I mean, there's a great company, I don't have any financial stake in them at all, but Ancestral Supplements. I'm sure you're familiar with them. You know, where they've taken and freeze dried-

Dave: [inaudible 00:25:21] liver.

Nora: Really, really high quality organs and tissues or whatever from things that are pristinely fed in New Zealand on, you know... they've encapsulated all that so that you can get it in a way if you are just too squeamish about eating organs. There are ways of getting it.

Dave: There's a company that makes those liver gummies. What do you think about those? Sorry.

Nora: [crosstalk 00:25:40] mm, yummy. Yeah, okay. Got my mouth watering now. So anyway, you know I'm very much about making it a diet of based on foods of uncompromising quality. In other words, 100% organic, grass fed, free of... fed and finished by the way grass fed, and finished. Free of GMOs, pesticides, herbicides, all that stuff.

Nora: And also, the number two pillar is minimizing all the foods containing significant sugar and starch content. Including the fruit juices and the so called natural sugars, such as honey, you know coconut sugar, maple syrup, agave, god forbid, and even starchy vegetables and stuff, as well as the refined garbage. Or "carbage" as I sometimes call it.

Dave: What do you say to the people saying, you know we looked at all sorts of records and our ancestors ate meaningful amounts of honey?

Nora: Right, well it depends on the ancestor you're talking about and the season or whatever. But just because, again, our ancestors did something is not a good enough reason for me to want to do the exact same thing now, right?

Dave: You don't have a Stonehenge in your backyard?

Nora: That would be so cool, wouldn't it?

Dave: It would be, but yeah-

Nora: I was just there actually. It was, it was a really neat thing. I will say that I'm friends with Jeff Leech, and you know who he is.

Dave: Mm-hmm (affirmative).

Nora: He's said that actually that, for instance, Hoza... of course, the diet that the Hoza are eating now is not the diet that they always used to eat. They're not able to hunt large animals anymore because the government won't let them [crosstalk 00:27:06] anymore,

right? So, it's small game or whatever. They eat a lot of honey, but they've also developed a genetic polymorphism that allows the bacteria in their gut to metabolize that honey so it doesn't affect their insulin. It's like crazy adaptation, but they've developed a specific adaptation to it. I would not expect the average person in our culture to have that same adaptation.

Nora: Speaking of honey, I mean, I have a close friend and they literally, the only thing they did wrong. This was somebody who just never over ate, who only ate organic, who only ate... moderated their protein intake, they grew all their own organic food in their own garden. They played tennis and they did yoga every week. Had a great attitude and everything else. They literally destroyed their heart and they're dead now and became diabetic. The only, the only carb in their life, the only thing was honey. They believed honey was a super food, and so they were doing you know a few tablespoons of honey a day and made themselves diabetic. Ended up losing a couple of toes and whatever else. Everything else, anybody would have looked at anything else they were doing with their diet and their exercise and their attitude toward life and everything else, and said, "Nothing wrong with this person's lifestyle at all."

Dave: Now, some of the research that I put together for my new book on anti-aging, it's not out yet. It comes out later this year. Touched on research that said when people eat a diet that's more than 20% from animal protein, usually that means meat protein, not necessarily collagen and what not, and probably I would guess including casein. I'd have to look back at the study. They're finding that when they eat that much that there's about a 500% increase in risk of diabetes. Whether or not the rest of it is with sugar, but the risk changes after a certain age, like after 65, maybe a little bit more. So, the argument there is less protein. I know you and I would agree on eating less protein.

Nora: We do.

Dave: Is it possible your friend was eating way too much protein?

Nora: They were actually, if anything, under consuming it.

Dave: Oh. So, they were basically on a honey and fat diet?

Nora: Well, they weren't actually... you know, the only thing I would have complained about with her diet was that she wasn't... she was... this was somebody that was really kind of into a lot of the earlier Burner Jensen stuff and whatever else. So, they actually had bought into the lower fat thing. I don't know that they were totally fat phobic, but you know, they didn't... it was not a high percentage fat diet, which in their case, might have been helpful because you know, doing high fat and high sugar together, it's like throwing a lit fuse on top of a powder keg. It's not a good combo.

Dave: Mm-hmm (affirmative).

Nora: You know, fat on its own, fabulous. Sugar on its own, ugh, you know? "

Dave: Now, I went on an extreme zero carb thing for about three months-

Nora: Well, there is kind of no such thing, but you could just eat straight meat, but-

Dave: I pretty much ate meat and fat.

Nora: Yeah.

Dave: And one serving of broccoli day, and that was it for three months. My sleep quality dropped through the floor after about six or eight weeks on that. I was waking up 12 times a night without knowing I was waking up. I was sleep [inaudible 00:30:37]. I felt super hungover and I developed allergies to eggs actually after I did that.

Nora: Have you ever done a full battery of syrinx testing?

Dave: I have.

Nora: Okay.

Dave: Yeah.

Nora: So, have you done some of the newer testing like the RA12 that's looked at whether or not you have microbial, you know reacting to microbial antigens at all?

Dave: I don't know if I've run that panel lately. [inaudible 00:31:00]-

Nora: Could be super interesting because a lot of people that have a history of chronic viral infections for instance, Epstein bar, [inaudible 00:31:06], whatever, end up reacting to stuff you would never expect anyone to react to.

Dave: And eggs are known to trigger if there's viral stuff.

Nora: Oh, well-

Dave: Eggs and chicken both, right?

Nora: Well, in certain individuals who may be sensitive, you know may be vulnerable to that. So, that would be a place I would want to look if you know, if I were working with you as a client. It's like, oh yeah, I really want to look at this because people who start reacting to meat and chicken and whatever, I really want... because those are the things that are less likely to antigenic to us, right?

Dave: Yeah.

Nora: Those are the... I really want to start looking at those microbial antigens. The history of Epstein bar is a biggie, biggie, biggie.

Dave: I do have a history of taking an insane amount of antibiotics for many years.

Nora: Oh shit.

Dave: From living in a toxic mold environment, to chronic sinus infections and all that kind of stuff. So, I'm a high risk person from all sorts of things. I used to weigh 300 pounds, et cetera.

Nora: Right, right.

Dave: But I also only had 48 species of bacteria in my gut according to the biome test.

Nora: Ye ow.

Dave: I added some low utilizable carb, essentially the probiotic stuff that Bulletproof is launching now. And I got my species count up to about 196, which is somewhere around the 80th percentile. So, I think that also could have been an issue, that I just didn't have anything to feed my gut bacteria. They may have been going after my gut lining. So, I kind of feel like I've seen so many people go on a no carb diet and after a couple of months they really don't like their life, especially-

Nora: Well, and no, it depends on what they're doing with that, right? I mean, I don't... you know, so it's a trite phrase but it's really true. I do tend to eat more vegetables, and fibrous vegetables and greens, than most vegetarians and vegans do, right?

Dave: Yeah, same here. Right.

Nora: Right, so I'm an advocate for that but, it's... I see it as supplemental not foundational. Not necessarily fundamental, but I do think those things are more important to us today than they ever used to be during our long evolutionary history, just simply because of how embattled our gut biome is in today's world with everything. I mean, chlorinated water, you know. We're surrounded... glyphosate. We're surrounded by antibiotics. So, our gut biome is constantly under attack. Anything we can do to prebiotically feed that is great.

Nora: I will say there are fermentable animal fibers too.

Dave: Collagen being the number one of them.

Nora: Collagen very, very high on the list. Yes. All kinds of connective tissue and things like that. And even higher, even more effective as a prebiotic than like fructo oligosaccharides might be, and this comes from microbiologist.

Dave: You think collagen is more effective as a prebiotic than FOS?

Nora: Specifically collagen, possibly. Yeah. I have-

Dave: [crosstalk 00:33:42] it's the most fermentable meat.

Nora: Do you know who Huron Christianin is?

Dave: I don't believe so.

Nora: He's a, you know, he's a scientist, a microbiologist.

Dave: Yeah.

Nora: And he's all about the gut bacteria and all of that. He just said yeah, absolutely, it's actually even more effective as a prebiotic, and in some cases than plant fiber in terms of facilitating healthy gut flora.

Dave: I will... I'll look up his research. In the 2014 Bulletproof diet I talked about two studies that showed bacteria can turn collagen into butyric acid in the gut.

Nora: Of course.

Dave: Of leopards.

Nora: Yes, yes. But our digestive system is far more similar to carnivores and I've seen that same research, than it is herbivores. We don't have a fermented base digestive system. Only 20% of our digestive system is devoted to fermentation. We have a hydrochloric acid base digestive system. We are designed to derive nutrients from animals that have synthesized these nutrients for us. We don't have any possible means of optimizing the extraction of nutrients from plants. We don't have that type of digestive system, so we can't do what a cow does or you know, a...

Dave: And even if we wanted to do what one of them does we probably don't know very well. I know that if I take raw kale and I try and give it to my sheep they'll spit it out.

Nora: Oh really?

Dave: [crosstalk 00:35:06] or if I give it to some of my friends, they make a salad of it.

Nora: Kale chips, love them but you know.

Dave: They're cooked.

Nora: Kale, it just bad mouth feel. I don't know. I don't care for it. But I love kale chips. I could eat a whole, you know, a whole huge bucket of kale chips.

Dave: You don't worry about oxalic acid in kale?

Nora: You know, I don't have problems with that. I guess if you know, somebody was prone to a certain type of kidney stone, perhaps oxalates. But you know, once you've... yeah, I

know there's only a certain degree to which you can neutralize some of these things by cooking, but anyway.

Dave: You can cook and wash the [inaudible 00:35:39]... and throw baking soda or something in to basically precipitate out the crystals before you eat it.

Nora: Yeah.

Dave: But... what [inaudible 00:35:47]. Vulva denia is associated with high intake of kale and oxalic acid, which is a really painful condition for women where your organs are so inflamed that you can't even wear underwear. Like it's... the women I know who have had it are just like I wouldn't wish that on my worst enemy.

Nora: Yeah. Whether I have underwear on or not, not really the issue. But yeah, I don't have that problem.

Dave: Yeah, thank goodness.

Nora: Yes, thank goodness. [crosstalk 00:36:10] but you know, I mean it's like kale chips are an occasional indulgence. I don't do this every day, but anyway. It's, you know, it's one of my weaknesses.

Dave: Yeah, I hear you. Well, also if they work for you they don't, and I think a third of people, according to Viome don't have gut bacteria that handles oxalates.

Nora: Mm-hmm (affirmative).

Dave: And two thirds of people do, so which one are you? Right?

Nora: Right, exactly.

Dave: And can you grow those gut bacteria? I haven't been able to. I still, I get sore joints when eating kale. I just don't eat it. It's not worth it, or I might have a few bites because it's delicious but...

Nora: Right, right.

Dave: Well, you have 12 rules.

Nora: And we've actually gone through three. I inadvertently got to number three, which was the protein moderation thing. You know, really this is not a carnivore diet. This is not a high protein diet. This is a very moderate protein diet. And again, when you consume protein in excess of what you need for your maintenance and repair a certain percentage of that, anywhere from 36% to 58%, depending on whose research you look at, can get converted to sugar and used the same way. Maybe there's a diabetes thing there. I don't know.

Nora: But then, you're also activating M-TOR, which is also part of the equation when it comes to diabetic involvement. So, if you're activating M-TOR, this mummalian target of rapamycin, this metabolic pathway, you know you're basically shortening your life span is what it boils down to. I know that people are liking the carnivore diet thing. I mean, it's another fad that's... and I understand for long stretches of our evolutionary history we probably... we were high level carnivores. We were higher level carnivores than bears, wolves, foxes, you know all kinds of things because we hunted mega-

Dave: Yeah. I support that for... if you want to do it for six weeks to reset your gut bacteria, see how you do. Cool. If you want to do that for several years you're not going to like what happens.

Nora: No. I'm not a fan.

Dave: But other few people do.

Nora: I'm not a fan. Yeah, of that.

Dave: We're not going to get through all 12 of these.

Nora: Yeah.

Dave: But I think... just there isn't time in the show.

Nora: Right.

Dave: I do think though, that that's a really good example. All the principles are very much in alignment with what I've learned and they're... they all make sense. They're all in your Primalgenic program, which now when you say it's a program, is this an online thing?

Nora: Yeah, it's an online thing, right?

Dave: Okay. Good.

Nora: There are a number of videos, quite a number of them actually, right now at least 16. There are going to be additional, all kinds of additional bonuses and handouts and things like that that you'll be getting, and recordings. They'll also be an exclusive forum where people can come on and, they'll feel a sense of community. They'll be able to ask questions and all that kind of thing. So, they'll be a lot of support around this as well. But, you know this is really a, kind of like a very, very passionate thing that I have created rather painstakingly. And there's nothing superficial or you know, fluff about it.

Dave: It's real education.

Nora: It is.

Dave: Yeah.

Nora: A real help for people who are suffering that need it.

Dave: You're a pioneer in the field, so making your teachings... just boiling them down to 12 things is exceptionally difficult to do. Then, to make it shareable. So, I appreciate that you did that, and I'm hoping that people got a taste of the kind of knowledge that you have on the show today.

Nora: Yeah.

Dave: I've got a question for you. I'm really keen. This is the final question in the interview, really keen to get your take on this. I'm planning to live an exceptionally long time or at least die trying.

Nora: Okay.

Dave: And-

Nora: Hopefully you don't get hit by a bus later today, but yeah.

Dave: You know, driving heavy vehicle is part of my anti-aging plan.

Nora: Or get hit by a stray vegan bullet or something.

Dave: Vegan bullets, they just splat I tell you.

Nora: Yeah, okay. Like marshmallows, yeah.

Dave: Exactly. So, assuming that no trauma takes me out, you know the diseases of aging and things like that, I think I can hit 180 at least.

Nora: Theoretically possible, right?

Dave: Now, and you've studied a lot of things I haven't studied, and we've looked at a lot of similar things. How long do you think you can live?

Nora: Oh man. You know, I don't know and actually, it doesn't matter to me that much. What matters is not so much the length of time that any of us live, you know. What's the point of living to 120 if you're on an oxygen tank, and limping around, and you know? And your mental faculties are gone, and you're joints are aching and whatever else.

Nora: So, it's about the quality of life and not the quantity of life in my mind. And that's... so even though I, part of what I do is I cross pollinate my ancestral research with human longevity research, which again, just because our ancestors did something is not necessarily a good enough reason for me to want to do the same thing, because just because something grew out of the ground and seem natural and they could shove it in their faces, eat it and not drop dead doesn't necessarily mean that was health optimizing for them.

Dave: Yeah.

Nora: I want to know what's optimizing. So, that's my approach. And it seems very puritanical but I've got to tell you that we've got no wiggle room today. We do not have the wiggle room of our prehistoric ancestors. We don't even have the wiggle room of our great grandparents, our grandparents, or even our parents. That we are living in a modern world that is more hostile to our being as a human species, than any hostile environment we've ever lived through during our long evolutionary history.

Nora: Only what we're wired for as a species are tangible threats. Right? There's a saber tooth tiger jumps out from behind a bush, chases you around. That's tangible. Cantankerous woolly mammoth, a poisonous snake, a warring tribe, a major storm, a you know size mick event or even famine, that's tangible. But today, we're all living in these lovely, you know 72 degree climate controlled environments. We have plenty... you don't have to take more than a couple of steps in any direction to grab a handful of something we might want to call is food, and you know, we're sitting on our comfy couches and you know, watching Dancing With the Stars and eating cheesy doodles, and thinking we've got it pretty good.

Nora: You know, we feel like we're sitting in a hot tub in Vegas, but when we're really boiling frogs. So, most of what threatens our survival today as a species are those things that are fundamentally invisible to us. Contaminants in our air, water and food supply. You know, mica toxin certainly, EMF and god help us, 5G and radiation contamination, and you know the sociopathic imaginings of multinational corporate interests. And you know, all kinds of things are threatening us in ways that are invisible, and therefore, we're not wired to know to pay attention to those things, and to take action in order to protect ourselves.

Nora: So, again, we have to take control of what we can because you know, we're being impinged on from every which direction. So, taking control of our health, and learning to pay attention, and we have to condition ourselves to look for this stuff, and to pay attention to it. You're talking about BPA earlier. You know, people see BPA free, it's a ruse folks because everything that's BPA free is being... they're replacing it with BPS, which is as bad or worse. It's just like the transfat thing. It's being replaced with interstratified fat.

Nora: And the industry is just buying itself another decade or two leading us to believe that oh, this is good for me now. It's BPA free. You know, we have to be alert to some of these issues. And so, anyway. I'm committed to providing as much information as I possibly can that is going to be of practical value to people that need it.

Nora: I've worked with suffering people for over two decades now. I've had it up to my eyeballs. I've really had it up to my gills with suffering. So much of it is unnecessary. And I think people are being victimized by misinformation and disinformation and predatory advertising and all kinds of crap. I'm really, really committed to making sure that people get good information that can make a measurable difference in the way that they feel and function in this world.

Dave: Nora, thanks for being on Bulletproof Radio. Your website, Primal Body, Primal Mind?

Nora: PrimalBody-PrimalMind.com. I also have a certification course. 52 week's worth of in-depth material.

Dave: Wow.

Nora: Yeah, if you go to PrimalCourses.com you can learn more about my different programs, and learn more about my new Primal Genic Plan Program, which I think is going to be an easy way for people to incorporate these changes into their lives in a way that will make a real difference.

Dave: Well, you've definitely, your 12 principles are all correct as far as my understanding what the world is.

Nora: Thank you.

Dave: And it is not easy to do that.

Nora: No.

Dave: Well executed. Thanks for being a pioneer and theme changer disrupter in the field.

Nora: Yeah, I'm a rabble rouser that's for sure. Total trouble maker, but you know, I'm in good company so there we go.

Dave: Yeah, you fit right in.

Nora: Totally.

Dave: Thank you.

Nora: Yeah, thanks Dave. I appreciate it.

Dave: If you liked today's episode you know what to do. Head on over to Nora's website and check it out. Pick up one of Nora's books or pick up one of my books if you haven't already, and whatever you do, when you buy a book from someone who's been on the show go to Amazon and leave a review because it tells other people that... you know as an author, we like to know that what we did made a difference. So, do that. It takes maybe 10 seconds to do it. But more importantly it lets you express gratitude, which makes you live longer.

Dave: So, live longer, review books. Have a great day.

Nora: It also helps off center the you know, predatory vegan reviews. Right?