

## Paleo Solution - 363

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Robb: Hey, folks, six listeners can't be wrong. It's another edition of the Paleo Solution Podcast, super excited for today's guest. Nora Gedgaudas is one my good friends. She is the international bestselling author of Primal Body, Primal Mind and the newly released Primal Fat Burner. Nora, how are you doing?

Nora: I'm doing awesome, Robb. It's really great to be here.

Robb: Yeah, it's really a treat for me to be able to chat with you. You are someone that I look to quite frequently when we're thinking about taking not just this Paleo approach, but also this kind of Paleo ketogenic approach to some really interesting endpoints with regards to health and wellness. But before we get into some of that stuff, could you give folks more of your background and maybe kind of a life history of how you got into this scene?

Nora: Right, well, it all started in a little hospital in Winnipeg, Manitoba.

Robb: Before that, there was an explosion of light and energy.

Nora: Of course, yes, and I was born in full lotus and opened my eyes and just simply smiled upon the world.

Robb: Nice.

Nora: No, I have a better-than-30-year background really in the study and work with nutritional science, and actually nutritional consultation has led me down some pretty convoluted paths on my way here to where we're at. My interest in nutrition originally stemmed from what had been a lifetime of struggle up to about age of 35, whatever, what had been a struggle with depression, and vacillated between chronic dysthymia and then some pretty debilitating depressive episodes. Being the determined kind of person that I tend to be, I knew that it didn't have to be that way, so I was quite determined to figure out how to address that, how to find my way out of it. When it came to nutrition -- and I tried a whole bunch of other things first. I tried, many years, a very high quality psychotherapy, got a lot of great stuff out of that, but there was this physiological component that was depression. I did all the self-help stuff and tapes, spent a week working with Tony Robbins. I also tried acupuncture and meditation and did all these deep inter-spiritual work sitting at mountaintops and all this kind of stuff and eventually stumbled across the whole idea of nutritional science.

I was initially particularly interested in supplements and how I could use certain supplements to change the way I felt. In the early '80s, there was the era of Durk Pearson, Sandy Shaw and all of that, and they talked about some very interesting uses of amino acids to create neurotransmitters and things back in the heyday of the neurotransmitter model, which has sort of evolved, shall I say, but I digress. But I did find I could get some really interesting effects with that, so I just really dove into that whole thing. I just wanted to know more and more about it, but I didn't have a foundational cohesive framework in which to put all of these ideas about nutrition. I was just learning about what nutrient and what supplement did what in the body and was interested in it from the minutiae standpoint. Then eventually I stumbled across a bigger picture and realized that I had been kind of missing the boat all along and needed to put things in that grander context.

At any rate, I was really kind of bought into, for a very long time, the standard low-fat dietary guidelines that told me that I needed to eat lots of carbs and all that kind of thing. Then I got sucked into vegetarianism for a while. Of course, that didn't work, and it didn't last. It actually threw me into an eating disorder and all of this and then I started having panic attacks and then I was having more anxiety-related issues, not much fun. I was into the fitness thing. I was a personal trainer for a while, along with a whole bunch of other things along the way. I was really interested for a while in performance nutrition, but seems I never really tired from exploring new frontiers.

In that spirit of adventure, I was eventually led to the top of the world -- again, long story, whole different podcast -- where I actually spent a whole summer living with a family of wild wolves in the Canadian High Arctic and less than 500 miles from the North Pole. I was participating in wolf behavioral research in the company of a world famous wolf biologist by the name of Dr. L. David Mech, who is a real good friend of mine. It was an amazing opportunity and a fairly industrial-strength religious experience for me, certainly the culmination of some lifelong dreams. It's, in my mind, the most peaceful place on earth. During my time there, I actually found that -- so right before I got to Ellesmere, I'd been eating a very vegetable-heavy diet. I still believed vegetarianism was probably the ultimate thing, even though I had failed at that and I was berating myself for having failed at such a --

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Robb: If you could just be better, maybe it would work.

Nora: Yeah, what was it about me that -- because I was really focused on the healthy whole grains and the potatoes and pasta and brown rice and all of that and lots of vegetables and whatever. Eventually I just started eating meat again, and I felt better and the crazy cravings I was having for meat went away, all that. It just was better for me, but I felt that I had somehow failed. I was doing a bunch of

juicing too at the time. I was mostly concerned, heading up there into the middle of nowhere for a few months, that what was going to happen to my health if I didn't get a lot of fresh produce over the months I was going to spend there?

Once I arrived, something unexpected happened, and I started craving fat possibly for the first time in my entire life actually. I found myself sitting on the tundra, very well-bundled against the cold and munching on just stuff I would never have probably touched with a ten-foot pole, much less put it in my mouth. There I was, eating salami and cheese, and I was eating a lot of nut butters and things like that. Once a week, we would make this pilgrimage to a remote military weather station that was in the area, took us a few hours to get there, but we were able, there, to take showers, thank God.

Robb: Once a week, whether you need it or not.

Nora: Exactly, oh, man alive, did that feel good, and then maybe make a phone call home, so people didn't think I'd been eaten by a polar bear or something. The officer-in-charge, who was pretty awesome actually, she allowed us to eat whatever it was that we wanted that might be laying out in the mess hall. We usually went at 3 in the morning. It was 24-hour daylight, but we went at 3 in the morning so we didn't interfere too much with what normally went on during the "day" with the staff. So there I wandered into the mess hall and with the light of heaven shining upon it, was this enormous bowl of butter. I made a beeline over there. There was a loaf of bread. I was still eating that crap in those days so I would take -- it was just like a vehicle for the butter. I wasn't really hungry for the bread, I wanted the butter. I would start toasting and slathering all those butter, just eating slice after slice until I was too embarrassed to continue.

The summer went on that way. I found myself looking forward to the days where we would actually go to the weather station, and I could go and scarf down some more butter. I was sitting on my rear end for the entire summer, all nice and toasty warm and eating all this fat-rich food, and by the end of the summer, I'd lost about 25 pounds. Now I know and you know there was a thermogenic effect at work there, at least in part, but there was something more to it that wasn't adding up for me.

Robb: Shivering off 25 pounds of fat would suck. If that's really the primary driver, that would suck so, yeah, there is a lot more going on there.

Nora: Well and I wasn't shivering, I really wasn't. I was quite comfortable. Now mind you, I'm sure that one of the reasons I was quite comfortable is that my internal furnace was probably kicked up a bit but, again, there was something more to this. We were hunting some small animals, well Arctic hare, basically. There are only seven species of land mammals on the entire island, and we weren't going to bring down like a musk ox or anything like that. So it was arctic hare which are

these ten-pound rabbits, were something that we would occasionally procure and then we cooked that up in a whole bunch of butter that we had along for the trip. So we were eating some wild food as well but there really wasn't --

I was sitting there in the tundra, looking out over this Ice Age landscape. I remember thinking, "Wow, I bet Northern Europe was a lot like this." There were glaciers around but not quite where we were. We were in a bit of a thermal oasis. But there was still permafrost everywhere. It occurred to me that there had been human people groups that had been thriving there for at least 10,000 years that anyone knew of. The ancient Thule culture was certainly thriving and had been thriving in that area. I mean, the closest human village at that point when I was there was about 350 miles to the south, so this is pretty remote. There were lots and lots of archaeological sites around there and many of which had not even been touched by archaeologists, so, super cool. You go to these sites, and they look like they were just waiting for people to come back to them.

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It was obvious to me that there was nothing, vegetation-wise, for anybody to eat there. They would have been living on basically meat and fat all the time. How could they possibly have survived that kind of hardship for that long a period of time so consistently and persistently? I noticed the same thing too, there was, on my way there, my first High Arctic stop on the way to Ellesmere, was this bustling metropolis, a place called Resolute Bay. It's a small Inuit village on the southernmost edge of what's known as Cornwallis Island in Nunavut, Canada. It's a Queen Elizabeth Canadian High Arctic archipelago up there. This whole area is a like thousand miles north and east of Alaska. It's way up there.

When I arrived there, there were fewer than maybe 200 residents that were living there, most of whom were Inuit people. I'd like to say it was a pretty place, but it really wasn't, anything but the entertainment capital of the world, just a few cracker box houses, and everything looked great, almost looked like a black and white photograph, just a lot of frost-shattered shale around and whatever. Government had basically forcibly relocated a number of Inuit communities there back in the '50s, promising them sovereignty and this great place to live, filled with homes and plenty of game for them to hunt. Of course, naturally, they found almost none of that. I tracked the Inuit name for it, which is Qausuittuq, means "place with no dawn," and it's somewhat suited.

Anyway, the local community at the time was mostly gleaned its subsistence from surrounding land and local waters as much as they could, mainly using modern-day snow machines in the wintertime and rifles to hunt and then going and getting seals and walrus and whale blubber and things like that in the local waters. Once a week there would be a Twin Otter plane that would fly up there with some drab loot, vegetables and mostly a lot of so-called non-perishable

crap that they would put on the grocery store shelves in a store that was about the size of a shed. People like that stuff, but it was expensive and they didn't have money. So for them, the natural subsistence approach to things made a lot more sense. So you saw frozen carcasses of dead seals all over the front yards and the occasional polar bear hide hanging out to dry and all these bored-looking sled dogs laying around.

Anyway, despite this seemingly limited dietary fare around there, the locals really seemed to be reasonably healthy. The kids were out there playing all hours of this 24-hour daylight, a lot of them not wearing mittens at 2 in the morning, some of them wearing Teenage Mutant Ninja Turtle t-shirts and stuff and wind-breakers. It was cold but for them, hey, it was Arctic Summer. Anyway, they weren't living on salads or tofu or steamed vegetables but, again, they seemed surprisingly okay. I didn't really witness any signs of obesity among them at the time, although I think that that's probably changed now.

Again, it niggled at me. It's like, how could this be? I didn't know where to put it and where to go with that, so I just tucked it in the back of my head. Well shortly after I got home, back to Minneapolis at the time, I happened to stumble, serendipitously, across the work of Weston Price, Nutrition and Physical Degeneration. That really caught my attention, and suddenly everything started to make sense. So I knew I was onto something with that. Once I realized how much could be learned through this logical investigation into what our ancestors actually ate and how that might tell us a lot about what made us who we are, and what I could learn about what might constitute an ideal diet for us today, it seemed, I really wanted to dig back further than Price did. Because it made sense to me to really go back and figure out what our most ancient prehistoric ancestors had to teach us through the longest stretch of our evolutionary history and not just the post-Ice Age, Holocene part.

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My thinking was this. It seemed logical and rational to imagine that the selective pressures that we would have faced as an early evolving species would have been most responsible for shaping our dietary choices. In turn, those dietary choices would have ultimately, it seemed to me, shaped our physiological makeup and made it what it is today while at the same time, establishing our most basic nutritional requirements, so, bingo. That's what led me down this path even further back from this post-agricultural and temperate, Neolithic time period where most versions of the so-called Paleo diet seemed to be based on to this more ancient thing. Which is why I chose the word Primal for my book because it seemed to imply something even older.

Anyway, one of the striking aspects of this, other than this comparatively much less hospitable climate that we lived in prior to the Holocene, nothing really like

the comparatively common temperate climate we know today, much less our 72-degree Fahrenheit living rooms and stuff, was this vast array of Pleistocene megafauna that we coexisted with from about 2.6 million years ago right up until about 10,000 years ago and when at least 120 species of them vanished in a blink of an eye. They really were a major focus of our diets for a good part of our evolutionary history. We know that even in the Mediterranean regions where they supposedly would have a lot more access to, easily gotten seafood and stuff like that, according to the stabilized topic data, they were actually much more interested in these extremely large herbivores and hunting them.

Robb: And Loren Cordain had an interesting paper on that. Basically from a thermodynamic, energy spent, energy obtained story, there is a non-linear relationship. The larger an animal gets, the more comparative fat mass it carries. If you've got a small critter like a rabbit, it's just not going to carry that much fat. A larger animal like a cow is going to be more fat, and more fat by percentage and so, it really became an energetic imperative to get larger animals; and once we had more sophisticated culture and stone tool use then we became really, really good at killing just about everything.

Nora: Right, the more fat we ate, the smarter we got and the better we became at it.

Robb: It was a virtual cycle, yeah.

Nora: Totally. I think they guesstimated that a woolly mammoth probably had better than 50% body fat. We have the bone marrow and the tongue and the brain tissue and all of that, and we would have gobbled all that up. You take down the fat and sassy woolly mammoth, as I like to say, and you've got a family barbecue that's going to last a good week or more. It would have been an efficient food source too where you wouldn't have had to go out and expend all this energy every other day bringing down smaller game. At the end of the Ice Age, we lost over 120 species of these animals just so suddenly. Then we were stuck with the smaller, leaner game that was much more difficult to catch. But fat never really lost its central importance to us just the same. It became just that much more of a sought-after and precious commodity.

It's interesting to me because I've observed, when it comes to other "carnivores," what's really interesting in my mind that distinguishes us from other carnivores like wolves, which I've observed hunting the animals that they hunt, that when, say, a wolf pack goes after a herd of animals, they're more or less ferreting out the sick, the weak, the old, the very young, not because that's what they prefer, but that's what's easiest for them to catch. But human hunters had a very different way of going about things. We instead selected for the fattest and sassiest animals we could go after even though that was going to be harder for us to catch and much more dangerous for us to catch. It was the fat content of these healthier animals that so-called primitive human hunters

became very, very good at being able to spot from a distance and know to go after.

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I know that in Australia, the Aboriginal people, when they would hunt, say they killed a kangaroo -- I mean, this isn't just true, by the way, of cold climates, okay? I don't want to leave the impression that it's all about cold, icy climates. It really isn't. This was true everywhere. In the arid and extremely hot Outbacks, if an aboriginal hunter brought down, say, a kangaroo and that kangaroo didn't have enough body fat on it, they would leave it out on the sun to rot. Fat was the thing that tended to be selected for more than any other component of an animal. That was extremely, extremely important.

The more I looked at all of this -- I mean, obviously Primal Body, Primal Mind, the type of dietary approach I talk about isn't that different from what I talked about in that book. But what I began, I kept my investigations going after I had finished writing that book and everything and, eventually, I started to just realize just how centrally important, I mean, I always knew that fat was important, but I gradually began to realize just how utterly and undeniably central that dietary fat was, not only to human health, but to the very thing that ultimately made us human in the first place, AKA our --

Robb: Our brain.

Nora: Our reasonably big brains and some are...

Robb: And a reasonably small gut, by contrast.

Nora: Yeah, yeah, right, but the way I see it, cooking didn't make us human and dietary starch didn't make us human. Dietary animal fat did. The evidence for that just seemed literally overwhelming to me, and it seemed also vastly under-appreciated, so I felt uniquely compelled to set the record straight by writing my new book, Primal Fat Burner. But it was a gobsmacking thing for me to suddenly just wake up one day and say, "Holy crap!" I just never even really saw it before.

When I go back to the work of Weston Price again, that guy covered over a hundred thousand miles over ten years, studying just untold numbers of primitive and traditional cultures in a whole variety of different ecosystems, environments, all of whom ate a whole variety of different things, and as long as they were doing their traditional dietary approach, they all seemed to do pretty well. So what the vast majority of people have come away with from that whole investigation of his is, it's like the Just Eat Real Food thing, you know, JERF. But one thing that gets overlooked is that he also asked a really, really smart

question that has been talked about but gets glossed over. That smart question he asked was, "What did all of these cultures where excellent health was characteristic of them, excellent physical and mental health, what did they all have in common?"

Well to the letter, of course we know he never found any vegetarian or vegan cultures out there. He looked really hard. He was very disappointed not to find them. So all of the healthiest societies really truly ate as many animal source foods as were available to them. But the other piece to this equation is that also, in every single instance, a very single, truly healthy traditional and primitive culture that he'd studied, the most important food, the food that was central in importance and even considered sacred, the most sacred was the food that was richest in fat and fat-soluble nutrients. In my mind, I thought, okay, bingo.

So what we have here is an undeniable set of foundational principles and the rest is, in terms of whatever else different cultures may have been eating, it can be looked upon as nuance. We're tempted to say, well as long as it's natural, grew out of the ground or whatever, it's probably good for us. I don't see necessarily a rational basis for that assumption. Just because our ancestors stuck something in their mouths and didn't drop dead, doesn't mean that that food was optimal for them or would be optimal for us now.

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The way I looked at it, as a way of trying to figure out how would we know, was looking at longevity research and some of the basic principles there. Of course what we've learned from that is that you really want to minimize your demand for insulin over the course of your life. If you are able to do that, you're much more likely to live longer and more healthfully, and then also not over-consuming protein. There's that whole emptor thing, which I'm sure your listeners are well acquainted with, that I do believe we need to be getting our protein from complete protein source, animal source foods, and I talk about why on Primal Fat Burner. It's basically because we have a hydrochloric acid-based digestive system. We need to trigger that to get the right pH signaling going.

But meeting those requirements but not exceeding them has some very, very interesting effects. It basically takes and turns what otherwise would be flipping on a reproductive mechanism, cellular proliferation, and flips that over in favor of more regeneration and repair instead. So it's, putting it in modern-day economic terms, "Oh, gee, it's too expensive to build a new house right now, so I guess we'll just fix up the one we've got." What's fixed up is you on a cellular level. It's literally anti-aging in its effects.

The way I look at that then is, how do we add other things? Ideally, what we would want to do if we wanted to optimize those dietary principles, because I

wouldn't necessarily say that everybody just needs to be only eating meat and fat. The other thing that I did was looked at, okay, which of the diets that Weston Price examined had the fewest moving parts, was the most basic in its design yet meeting all the criteria for excellent health? Of course the Inuit come to mind, being really the simplest of all of the dietary approaches that he looked at. I don't necessarily suggest that's how everybody should be eating. I don't. But I thought, okay, how do we add things to that?

Ideally, what we want to do is add things to it that helps support but not necessarily take away or compromise us in any way, and fibrous vegetables and greens seemed to be the best, of course, addition to that. We know that there is no established human dietary requirement for carbohydrates of any kind, but that doesn't mean we shouldn't consume any form of them. I think fibrous vegetables and greens have the potential to be more beneficial to us now than they ever used to be, during our long evolutionary path, just because of the uniquely toxic and, I think, harsher environment that we live in today, from the standpoint of exposures to all kinds of invisible threats.

They provide us with certain antioxidants and phytonutrients and things that we know are demonstrably beneficial. They tend to be detoxifying in their effect, and they give us a little bit of extra bulk as well, in addition to being great fodder for our internal wildlife, if you will. The more variety that we consume of, I believe, both plant and animal foods that way, the healthier the microbiome, and we need to pamper our internal wildlife as much as possible because that also keeps our immune system functioning. It helps, well, our immune system, from the standpoint of oral tolerance, functioning the best with the greatest variety of bacteria basically, the good guys.

Robb: So do you -- oh, yeah, keep going, keep going.

Nora: That's okay. Anyway, in a nutshell, well not so much a nutshell, that's a pretty big nut, but that's basically how I arrived at what it is that I'm advocating now as a basic dietary approach that in my mind is optimizing -- and the only thing I would add to that is that one of the things that characterizes Primal Fat Burner as distinguishable from other books on ketogenic, the eat-fat-to-lose-fat diets, number one is the emphasis on dietary animal fat, for the first time, as being the centrally important thing, but also an unwavering and uncompromising emphasis on food quality. In other words, the health of the meat and fat you eat directly correlates to the health of the animal that that meat and fat came from and by making the right choice, in other words, choosing the meat and fat of the animals that have been allowed to, themselves, eat a diet that's natural to them, in other words, fresh green forage and fresh air and sunshine. We're not only doing more to support our health in the best possible way, we also can make a tremendous impact on the environment.

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You and I are both good friends with Allan Savory, and I am a very passionate advocate of what he is setting out to do. I think it's a perfect marriage actually. So I see this as a potential way, not just to save the health of everyone that has the inclination to adopt that way of eating, but also literally turn around our environment. When 97% of the meat production is all about cattle operations, feedlot and factory farming, the only way that gets changed, it's certainly not going to get changed by some kind of political decree from on high, this has got to be, if you'll excuse the pun, grassroots. It's got to be from the ground up. We have all got to make a demand for this is what we want and this is what we're no longer willing to put up with any more.

Robb: Just to throw something in there, it's funny advocating for this grass-centric, animal-centric, huge herds of grazers that should be occupying one-third of the earth's land-masses. Advocating for that makes me feel and look less like a crazy person who is recommending animal fats. Because telling people, "Oh, saturated fats are not going to kill you and you should eat some animal products and whatnot," that makes you a little bit like a crazy person. But suggesting that grazing animals may be the solution to sequestering massive amounts of atmospheric carbon dioxide, reversing climate change or stabilizing climate change and actually stabilizing the food supply system; you sound crazy.

Nora: Yeah, true, well in the eyes of mainstream persons that really haven't ever really bothered to question the status quo. What's crazy to me is persisting in a way of eating that is demonstrably worsening the health of the population. A lot of people are led to believe that people are overweight and they're sick and they have all these metabolic diseases because we're just too fat, stupid and lazy to pay attention to the mainstream dietary requirements as laid out by our benevolent government agencies and mainstream healthcare experts and things like that, that are supposed to be all low-fat and focused on whole grains and all these kinds of things.

The fact of the matter is, there was that NHANES study a couple of years ago that showed, that analyzed data from 1965 to 2011, that looked at the way Americans had been -- well the established dietary guidelines during that time and also what people were predominantly eating during that time, and how closely those two matched up and what effect that had on their health. It turns out that actually, we'd been following the rules, that the vast majority of Americans have been following the rules. They have been basically following these dietary guidelines to a remarkable degree, but it also showed that the more obedient they were about following those rules, the more likely they were to be obese and sick. So, to me, it's that old definition of insanity. You keep doing the same thing over and over again, expecting a different result.

When you have the United States Department of Agriculture's food pyramid telling us how to eat, and of course no conflict of interest there, you basically have a food pyramid that no human people group in the history of the human species has ever eaten a diet remotely resembling what that suggests as optimal. Yet that's considered the standard of the day and you're nuts if you don't see it that way. If you repeat a lie long enough and loud enough and you get the right people to repeat that lie long enough and loud enough then it becomes an unquestioned truth. But nothing innovative ever happened by following the old rules.

The whole Paleo thing is exciting from the standpoint that it actually speaks a lot to people's common sense, for the most part. It makes sense to people that, well, yeah, actually, doesn't it make sense to eat the way our ancestors did? Because that's what they had and they seemed to do okay, otherwise, we wouldn't be here. You always hear the argument of, "Well, you know they all dropped dead by the time they were 40 anyway." The fact is, when we adopted agriculture, initially, we literally lost half our lifespan.

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Robb: Right, it was like 18 or 19 years was the average lifespan.

Nora: Yeah, and in the 18th Century, we weren't living longer than 25. Then we start getting better sanitation and whatever else, and we started to do better. But obviously, when you look at the way people are living now, it's like, yeah, we're at the longest lived we've ever been. Well I don't know that being hooked up to an oxygen tank or of having Alzheimer's disease, living, at age 80 or whatever else, or being diabetic or having other kinds of illnesses. Most people are not aging gracefully. Most elderly people are on many, many, many different prescription medications. It's almost like Weekend at Bernie's, just propping people up until --

Robb: Until they smell really bad.

Nora: And keel over and there's nothing to do but put them in the ground. I'm joking, but it's actually not that funny. I think that the medical system is apparently the fourth leading cause of death, 225 to 250,000 Americans every year just die as a result of being sucked into that black vortex of the disease management system.

Robb: It's an interesting story because when you look in the 1900s, really the challenge of the day was infectious disease, and it was a very passive process on the part of the medical consumer. Eventually, we developed antibiotics which have their own bag of challenges, and vaccinations and public health and whatnot. We've really, at least for now, largely beat infectious disease. It'll be interesting to see if, over the long haul, we are able to maintain that foothold, but now the

challenge of the day, the top ten causes of death are chronic degenerative disease, and it's a very non-passive process. You've got to have engagement between the patients and the healthcare system. It's no longer a sit back, take a pill, and everything's going to be resolved. It requires pretty significant diet and lifestyle modification, and diet and lifestyle modification that's pretty much antithetical to what we're being sold from the media, the government and what have you. But it is becoming so expensive to do this sick care model that you're finally starting to see some serious cracks in that system.

Nora: Totally, yeah, and I think people are increasingly recognizing that it's not working that well. The other part of the equation too is that it's collapsing from the standpoint that the number one cause of bankruptcy right now in the United States is a bad diagnosis. From an economic standpoint, I don't care if you're a Fortune -- or even not from an economic standpoint -- I don't care if you're a Fortune 500 executive or somebody slinging burgers at McDonald's, nobody can really afford that bad diagnosis nowadays. Because there aren't very many good solutions once you get sucked into that vortex, not many people make it out of there in better shape, shall we say, if they get out of there alive at all.

So I think people are becoming much more open to the implementation of more preventative measures. There's a lot of distrust now of mainstream authority, of the government, of medical authorities and things. People, I think, are rightfully suspicious. There's a little bit of a Renaissance in thinking of, hey, maybe we really should be thinking preventatively. The only problem with that is that there are so many conflicting messages with what actually constitutes a healthy diet and lifestyle, and that's where things get confusing, unfortunately.

Robb: Right, and for me, some of this personalized nutrition stuff seems really interesting, where we see just shockingly different responses with regards to blood glucose response, insulin response to different foods. Like my wife and I just went through an experiment that we put on social media, and God bless Nicki but, man, her pancreas can kick my ass up one side and down the other. It's kind of crazy. Now she still eats a significantly meat-inclusive, animal fat-inclusive diet.

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But I oftentimes look at this stuff as kind of a threshold mechanism. For me and my -- so my 23andme genetics suggests that I'm at much higher likelihood of developing Type II Diabetes than the average person. I had a ton of antibiotic exposure as a kid and youth. There might be some mitochondrial dysfunction in there. So for me, ketogenic or pretty darn close to a ketogenic diet seems to be where my sweet spot is. All my metabolic parameters work well, all my cognitive function is good, my digestion is good, but then I've got my wife who can seamlessly go in and out of a ketogenic phase.

She doesn't eat high-carb but she may get up as high as 75 to 120 grams a day, occasionally, and that doesn't seem to change -- she seems pretty much immune to this stuff. She was raised essentially on a farm, didn't have much antibiotic exposure, neither of her parents were Type II Diabetics. Both my parents were. I was pretty likely carried in-utero during a gestational diabetes phase with my mom.

What do you think about those nuances there? To some degree, I've seen this ketogenic option as definitely appropriate for people that have, for whatever reason, have some sort of damaged metabolic function. Then from there, I could see a really strong argument for cyclical exposures to ketosis, whether that was intermittent fasting or maybe couple of weeks or couple of months a year. What are your thoughts there? If somebody just has phenomenal insulin signaling and a decent amount of carbs isn't really causing a large insulin response, they metabolically end up looking a lot like me when I'm eating low carb.

Nora: Right. Look, I think the most important key, the way I see it is the most important key to optimal health isn't in our individual differences so much as it is in what we have in common. In other words, there isn't a different textbook on physiology or anatomy for every person listening to this. There's a basic human anatomy and physiology that we all share and then obviously, there are various biochemical nuances, genetic polymorphisms and things like that, that we need to maybe address outside of that. But to me, those biochemical differences are more representation of nuance. In other words, biochemical individuality supplies the nuance, but it's our common physiological design that supplies our most essential foundations. I believe that's where we need to start and where, in my mind, the rubber hits the road.

So from the core principles I talked about, I do believe that we are all best designed to operate and most efficiently designed to be operating with a fat-burning metabolism. We know that there is no scientifically established human dietary requirement for carbohydrates. There is no such thing as a carb-deficiency. Some people tolerate them better than others, and given that we're all basically being convinced and have been exposed from a very young age to a predominantly carbohydrate-based way of eating in this modern world -- I have a comment to make about that in a second -- most of us adapted early on to a sugar-based metabolism. I think some people tolerate that better than others. Do I think it's optimal for anybody? I don't actually think it's ultimately optimal. I just think that some people tolerate it better than others.

I do think that anything that activates insulin is long-term much more likely to compromise than support your best quality health. But somebody like your wife might do fine and may not be as metabolically broken as a lot of other people in our modern-day culture and society seem to be, but that ultimately, I think that

we're best designed and most efficiently designed to run on fat than anything else. It makes sense that --

Of course I have my metaphor about the metabolic wood stove. Carbohydrates are basically the equivalent of metabolic kindling, so your whole grains and your brown rice and your beans and your sweet potatoes and things like that are basically the metabolic equivalent of twigs on that fire. Then the more refined things like bread, pasta and white rice and then things like white potatoes, et cetera, those are really a little bit more like throwing crumpled up paper on that metabolic fire. Then sweetened beverages and things like beer and whatever and sodas, juices, whatever; a little bit like throwing lighter fluid or gasoline on that metabolic fire.

**[0:45:23]**

If all you had to run your metabolic wood stove all day long is kindling, you could certainly do it and, hey, 99% of people in our culture do it that way. But what are you actually doing, you're living your life constantly preoccupied in many respects about where the next handful of fuel is going to come from to keep the fire going. Now who does that benefit? The way I see it, if I can get conspiracy theorist for a moment, I can't think of a single multinational corporate interest right down to Big Oil that wouldn't be heavily invested in every man, woman and child eating a diet based in carbohydrates because it's easy as heck to produce.

Robb: Infinite shelf-life.

Nora: Right, cheap as hell, it lasts a long time, it's incredibly profitable, there's no way you'll ever make a 5000% profit on grass-fed steak like you will a box of cereal, and it keeps whoever is consuming that type of diet more or less perpetually hungry, so, great for Monsanto and Nabisco or Kellogg's or whatever, Kraft, but not fabulous for everyone else. So even though fat supplies double the calories, it actually has a potential to generate four times the amount of energy in our brain and nervous system that is uniquely fat-based. The two fatty-acids most responsible for human cognition, arachidonic acid and especially docosahexaenoic acid, are found exclusively within our food supply within animal source foods, those things that make us distinctively human.

When you look at the range of benefits that are associated with a more fat-based metabolism, which are, if you list it in small print, go down longer than your arm; it doesn't make sense to me that that would be just an alternative form of metabolic fuel. Look, I think sugar is the alternative. It's the auxiliary fuel that our society has basically put as a primary source of fuel, so everyone's driving around with rocket fuel in the engines all the time. Do we really want our engines burning hotter all the time like that? It doesn't make sense really. It makes a lot more sense that, especially as a species where we would have

evolved in an environment where food would have been less certain, that you don't know necessarily where the next meal is coming from, God forbid, we should have been operating on a metabolism that required us to eat every two hours. We wouldn't be here.

Robb: That point is something that, for me, has cut through, did we eat ketogenic ratios all the time or did we not? Did we occasionally get more protein or fat? But this point of the intermittency of eating and people not being metabolically broken, so if we had intermittent eating of whatever macronutrients story you're talking about, but let's say there's multiple hours, potentially days between meals then ketosis was going to be a pretty common companion whether you're eating a ketogenic ratio or not. That's where, for me, it cuts the Gordian knot to some degree that there may be super compelling reasons, like particularly for me, to more or less be ketogenic all the time at this point, but you can't really --

Art De Vany did some really interesting mathematical modeling on this whole story where it was basically, there's an intermittency frequency distribution that would really suggest that there was a consistent shifting, to your point, into that catabolic repair mode relative to the basically chronic overfeeding, chronic anabolic state that we face in modern living.

Nora: Right, yeah, I agree with you that we really, I think, are best designed -- I mean, the thinnest person listening to this right now probably has at least 100 to 150,000 kilo-calories of fat on their bodies, but they could be tapped into all the time as a source of fuel that could keep their brains running like clockwork, and it could be keeping them energized and whatever, 24/7, even in the absence of regular meals. It does not make sense that we would have been metabolically designed to operate that way, and not intermittently, but as a primary course. Now I think, certainly, if we were over-consuming protein, which there's certainly plenty of evidence to suggest that we did over-consume protein, which would have kicked up the gluconeogenesis more and all the kind of a thing, but I think that it certainly makes overwhelming sense that we're designed primarily to operate on a more fat-based metabolism.

**[0:50:56]**

One of the things that I'm kicking myself now that I actually didn't make conscious note of until after I'd handed my manuscript in, but I was really gobsmacked, as I was looking around online for cave paintings which is just my favorite art form ever. I just am so enthralled with the magnificence of these early cave paintings. So I was looking all over Google Image whatever for all these cave paintings and then suddenly, I'm gobsmacked with the realization that in virtually every single one of these that were involving depictions of animals we once hunted, regardless of where these paintings originated, all of the prey animals, what we would consider prey animals, were typically depicted

as being unnaturally fat. We're talking like Macy's Day Parade bloated, with tiny little stick legs right under them. Interestingly, when they depicted humans, for the most part, they were not depicted that way. They were shown as generally being fairly thin and whatever; and the predators, by and large, when you look at the cave lions of Chauvet Cave, they're muscular and pretty proportional.

But cave paintings have been a lot more recently understood by those that study them as being pretty likely shamanic in nature, in other words, depicting those things that were sacred or which maybe prehistoric people may have sought as most desirable, perhaps something like a prehistoric vision board, if you will. Don't make any mistake about this. These were extraordinary artists that were fully capable of depicting animals pretty accurately, but they chose to portray the ones that they might have sought to hunt for food as being disproportionately fat. The rational implication in my mind is that this was easily the most desirable characteristic in their food, animals that they hoped to successfully hunt. Looking through hundreds of cave paintings and rock art from locations from all over the world, it's just a theme that comes up again and again.

When you look at certain human depictions, again, we look pretty slender for the most part, but there was an interesting exception to that. Of course we don't have visuals to operate with here but if anyone has ever seen that tiny little figurine called The Venus of Willendorf, it was the very first carved object that we've ever discovered. I think it goes back 20,000 BCE or whatever, and it was found by archaeologists in Austria. It depicts this woman that today would have been slapped on Jenny Craig so fast it would have made your head spin. Especially there was a Venus of Hohle Fels, and I think that was actually the world's oldest figurine, now that I think about it. That was about 40,000 years old actually. Both basically are identified by archaeologists or by anthropologists as a fertility totem.

When you think about it, there would have been no more desirable characteristic for a woman wanting healthy babies in Ice Age Europe than this ample supply of body fat to help nourish a fetus in an otherwise very harsh and unpredictable environment. But that said, prehistoric or so-called primitive indigenous women, they simply did not ever look like that. Indigenous women eating their traditional diets, studied by anthropologists and in every example we've ever at least had available to us, they'd consistently appeared overwhelmingly lean and really healthy-looking.

Obesity is really a modern-day phenomenon. Back then, they understood that fat, rich of course in naturally occurring fat-soluble nutrients, as we now understand, really meant survival and healthy nourishment for both woman and baby and man alike. A lot like the cave paintings of prey animals, I think that these totems represented a desired characteristic of sort, not a realistic

depiction of the female human body form. But even mild insulin resistance would have conferred a clear survival advantage at one time

[0:55:22]

Robb: Maybe popping up here and there in pre-agricultural societies, you might have had a polymorphism where the individual, even with that ancestral diet, maybe did attain these proportions, but that would have been such a fascinating outlier. It's like in -- I'm forgetting which emperor it was, but he suffered from epilepsy. They thought that this was some sort of communing with the gods. They thought that this was kind of a unique and important thing. So maybe there were these polymorphisms that popped up and occasionally these individuals were carrying exceptional levels of body fat, but that would have been really unique and very intriguing for these folks.

Nora: Right, and again, I think that these things, they were representative of what might be optimal during pregnancy. I think that these totems were basically seen as fertility totems as opposed to just, hey, Martha sure got fat, why don't I immortalize that here in a piece of mammoth ivory for no good reason at all. Again, I think that when you look at this from a shamanic perspective, you're looking at something that they were depicting as an ideal from the standpoint of what was going to be most supportive of good fertility. I think you're probably right, there may have been outliers, occasional polymorphisms where somebody just really plumped up abnormally, but I just don't think that that would have inspired this type of art necessarily.

Robb: Got you, got you. Well, Nora, it's always great connecting with you. You're going to be at Paleo f(x) this year?

Nora: Oh, yeah, definitely.

Robb: Awesome, awesome. Remind folks where they can track you down on the interwebs and also your new book.

Nora: Yeah, my new book is Primal Fat Burner, and you can double entendre, by the way. You won't be finding it in the bookstores on the shelves next to the book Skinny Bitch. It's not necessarily a weight loss book but nice side effect anyway. But you can go to [primalfatburner.com](http://primalfatburner.com). There's actually some free bonus content you can download there.

I also have a new online educational program. That's sort of a weekly program that I have launched, and that's doing really well right now. If you go to [primalrestoration.com](http://primalrestoration.com), it's my Primal Restoration series, you can learn more about that. Of course there's the old tried and true, [primalbody-primalmind.com](http://primalbody-primalmind.com), which is of course also the name of my first book,

still available. Those are the, I guess, best websites to go to.

Robb: Great. Well, Nora, it's so great connecting with you. My heart metabolism definitely gravitates towards this ketogenic-fueled side of the equation, so I really appreciate the deep dive that you've done both on the metabolism, but also on the anthropological underpinnings here.

Just maybe as a final aside before we wrap up, but it has been really interesting to me the recent news and media pieces where they were talking about the Neanderthal dental findings and they're talking about these folks eating bark. It's hilarious because it's like, okay, we have some evidence that suggests some bark that was consumed but then there's a complete blindside here where nobody's asking, well how much of a contribution did that make in the diet?

A male in these people was probably 170, 180 pounds, a daily energy expenditure somewhere between 4,000 to 5,000 calories a day, and this is very noncontroversial, very orthodox anthropology type, archaeology type reconstruction, and somehow these people were fueled on tree bark at that size, that muscularity. There's just some interesting holes that are getting missed on that. It's kind of funny to me.

Nora: Right. There are things like pycnogenol whatever too. Maybe, who knows, maybe they knew there was some sort of medicinal benefit from that. We don't have a fermentative base digestive tract that's able to take plant fiber and ferment it into something actually usable by us. So if they were chewing on tree bark, either they were like really desperate, trying to clean their teeth perhaps, because we know that there are some primitive cultures that chewed on sticks and things to kind of get the stuff out of there. We call them toothpicks in our culture. Or maybe there was some sort of medicinal thing they were going after from the inner bark of whatever it was. But come on, folks, really? Tree bark?

**[1:00:40]**

Robb: Right, they were fueling 5,000 calories a day on tree bark.

Nora: Tree bark, okay, well I guess my bad.

Robb: Right. It's just fascinating to me and, again, not to get too far out into the weeds, but this is where some of the Allan Savory stuff, the sustainability stories, when we start doing a thermodynamic analysis, like what are the energetic inputs and outputs, you get to the root of things pretty quickly and for, particularly these periglacial, Northern European hunter-gatherers, you didn't fuel that on tubers and roots and shoots. It was fueled by something else, and it was probably these ubiquitous, large land mammals, so, just interesting.

Nora: If you've ever spent -- and I know that you have, actually. In fact, I saw that thing that you did with --

Robb: I, Caveman, yeah.

Nora: Yeah, which was so awesome, Robb, I bow to you. That move with that -- I actually have several atlatls, and I mess around with that stuff. I really appreciate those early tools. But that you were able to take that elk down, that's like, oh, my God, that's just mind-blowing. That's so cool. Anyway, when you're out there, it doesn't have to be freezing cold, it's night time and it's cool out, even if you're in the jungle, or maybe it's raining or whatever else; you're out there in the middle of nowhere with nothing to eat, you aren't dreaming of a salad. You're not dreaming of [audio cutout] or tofu. Pretty much everything you look at turns into a steaming drumstick. So we have to put ourselves in the mindset of people groups that would have been living in direct contact with the natural environment that really sustains us all. It's just that I think that this carbohydrate-based approach to eating, along with vegetarianism and veganism, are just symptomatic of just how far we've become removed from the natural environment that we evolved in.

Robb: Right, I could not agree more, could not agree more. Well, Nora, thank you again so much for being on the show, really looking forward to seeing you in Austin, and very excited for all the new stuff you have going on. This educational course sounds fantastic.

Nora: It is. It's actually, it's really, really cool. It's a lot of bang for the buck, I'll tell you.

Robb: Awesome, awesome. Well let's circle back in a couple of months and get you back on and let's just talk about that, specifically.

Nora: Sure, that sounds great.

Robb: Awesome, Nora, take care. We'll talk to you soon.

Nora: Look forward to it, thanks, Robb.

**[1:03:15] End of Audio**