

**EPISODE 157**

**[0:00:00.3] AV:** Welcome Paleo Nation. I'm Ashleigh VanHouten and you're listening to Paleo Magazine Radio, the official podcast of the original Paleo Lifestyle Publication.

[INTRODUCTION]

**[0:00:19.3] AV:** All right guys, we're talking to Nora Gedgaudas on the podcast today. Many of you are probably already familiar with her name. She's a paleo expert with a number of bestselling books like *Primal Body*, *Primal Mind* and *Rethinking Fatigue*.

She's a board certified nutritional consultant and clinical neuro feedback specialist with the practice in Portland, Oregon and she's a speaker and educator with her own podcast as well as being a regular at Paleo f(x). She has a new book called *Primal Fat Burner* that talks about a fat based ancestral diet that helps you live longer and be leaner and healthier.

Now, while the term ketogenic diet is probably familiar to you, I promise there are stuff in this book that you did not know. I thought I knew pretty much what you needed to know about the ketogenic diet and then I read this book and realized how much more there was to it.

We get into the biological basis for this type of eating and how it can benefit everyone from high level athletes to those dealing with a whole host of health issues and everyone in between. Nora schools me on things like how much protein you should actually be eating. Spoiler alert, it's probably pretty different than you think.

Before you get started, let's hear a little bit about today's podcast sponsor, Ancient Nutrition.

[SPONSOR MESSAGE]

**[0:01:32.3] ANNOUNCER:** Dr. Josh Axe, one of the co-creators of Ancient Nutrition Bone Broth Protein, thinks that there's a problem with many of the foods people eat nowadays.

*JA: They're very hard on the digestive system and we're not actually absorbing a lot of the nutrients that we think we're getting on a daily basis.*

**[0:01:48.3] ANNOUNCER:** Unlike most foods however, the proteins in bone broth are already in their amino acid form, which makes them extremely gentle and easy to digest.

*JA: Just sort of imagine, them going into your intestines and your intestines aren't having to work. They're simply bringing it into your cells, bring this nutrients in and so again, it is very easy on the body.*

**[0:02:09.3] ANNOUNCER:** As you may imagine, bone broth is considered paleo for a good reason. But even if you're not fully paleo, it can still do your body good.

*JA: It's friendly for a paleo diet, it's the number one super food recommended for the GAPS diet, the SCD diet and anybody with specially digestive disease, this is one of the number one foods that's recommended for those people in supporting the health of their gut.*

**[0:02:31.3] ANNOUNCER:** You can hear from Dr. Axe and learn more about Ancient Nutrition Bone Broth Protein by going to their website, [ancientnutrition.com](http://ancientnutrition.com).

[INTERVIEW]

**[0:03:09.8] AVH:** Hey Nora, welcome to the podcast.

**[0:03:11.5] NG:** Thank you so much, it's such an honor to be here actually.

**[0:03:14.9] AVH:** Awesome. Well, we're here to talk about your new book, *Primal Fat Burner*, but before we get into it, I kind of have to ask you about this because one of the many things I learned reading this book, one of the things I learned about you is that you were actually born in Canada, is that right?

**[0:03:29.4] NG:** Oh yes, I was.

**[0:03:30.9] AVH:** Okay, I'm Canadian and it's...

**[0:03:35.0] NG:** Oh! I knew you had to be cool.

**[0:03:36.1] AVH:** Right, it's just this thing about Canadians that when we're outside of the country and we meet other people who were born in Canada, we have to act like we are from this tiny town instead of a country of 35 million people. We just get really excited, so when I read that I was really excited.

Have you spent much time in Canada, you didn't grow up there right?

**[0:03:54.2] NG:** Well, I lived there for the first three years of my life and then we moved to the twin cities. But I still have a Canadian passport, I have a dual citizenship. Nice to have options, right?

**[0:04:02.1] AVH:** Yes, very much.

**[0:04:05.7] NG:** I do have my eye kind of on Canada for maybe living in the future. That's not going to happen any time too quickly because I just made a whole bunch of really cool changes to my house but you know — pardon?

**[0:04:18.0] AVH:** Good to have those options.

**[0:04:21.1] NG:** It is good to have those options and you know, I've always had a love for actually for Canada and I travel up there whenever I can and yeah, it's an awesome place. I'm one of those people that I actually had a poster of Pierre Trudeau in my college dorm room.

**[0:04:41.3] AVH:** Nice. This is awesome, this is a great start to this podcast. Do you know how many people probably have posters of the new Trudeau now?

**[0:04:49.2] NG:** I can imagine, he's pretty popular. Well, he's better looking than his father was. His father had kind of a cool look to him.

**[0:04:58.4] AVH:** Oh, I like where this is going. Okay, we might veer off pretty hard here so let's get on to it. The first question, well the first thing I wanted to talk about with your book is you introduced the book through your own story, struggles that you had with standard diets and a vegetarian diet even and the resulting health issues and I think that's a common story of a lot of us. But you found your way to a fat rich diet to a pretty cool story that is not pretty typical that actually involves the Canadian arctic.s

**[0:05:27.3] NG:** That also involve Canada.

**[0:05:29.6] AVH:** Exactly. Can you talk about that a bit because I just think that's such an awesome story.

**[0:05:33.5] NG:** Yeah, so I never seem to kind of tire from or exploring new frontiers, I was always into just sort of digging deeper and try to figure things out. In that spirit of adventure, in my journey, it eventually led me to the top of the world and I lived with a family, I spent a whole summer living with a family of wild wolves roughly 500 miles from the north pole in the Canadian high arctic archipelago, the queen Elizabeth islands and in specific, Ellesmere island.

It's this absolutely amazing place where honestly, it's kind of like when the world was new in a way. There are about six species of land mammals only and it wasn't even glaciated during the last ice age. So it's an extremely ancient landscape and I found myself, before I went up there, I had been eating a mostly — basically eating more or less according to government guidelines, you know?

Mainly a carbohydrate based diet, lots of vegetables and fruits and things like that and I was juicing a lot and I was doing all these other things and trying to avoid, dutifully avoid fat and in addition to that, whenever I ate meat, it was like really lean meat and that kind of a thing. When I arrived on Ellesmere and after a couple of days there, I found this unusual craving for fat kind of creeping in. You know, I pretty much spent the better part of the summer sitting on my backside on the tundra or on a four wheeler. There just wasn't a whole lot of — I wasn't running, I wasn't even really walking around that much.

The ground was very hummocky, it was very difficult to maneuver on the ground there. We pretty much sat watching wolves do what they do when they went off to hunt, we'd follow them on four wheelers. But while I was sitting on my back side, sometimes watching wolves sleep for long hours, I found myself snacking on just all this fat rich foods. I was eating salami and cheese and you know, nuts and nut butters and things like that. Then once a week we would make a pilgrimage to a weather station, there was a military weather station some distance off from where our encampment was.

It allowed us, we had a good relationship with the officer in charge, you know, the OIC and we were allowed to go in and take showers, thankfully, and maybe make a 15 minute phone call so people at home didn't think I'd been eaten by a polar bear and the officer in charge said, "Hey, you know, if you want, you can go into the mess hall and if there's anything laying around that looks good to you, you're welcome to it." This was always in the middle of the night when nobody was around and so it was really quiet, people were kind of asleep, it was still 24 hour daylight.

Anyway, I wandered into the mess hall and across the room with a light of heaven shining upon it was this enormous bowl of butter. You know, I just made a B line straight over and I grabbed a slice of bread which I was still eating that crap in those days, but I wasn't craving the bread. Bread was basically just a vehicle for the butter, I toasted it and I just started slathering all the butter I could fit on that slice of bread and I'd start eating slice after slice of that and until I was too embarrassed to continue.

All the while, I'm thinking, "Who is this? Who am I? What the hell is happening? Why am I doing this?" In anyway, you would think that somebody not moving very much and sitting on their backsides on the tundra all bundled up and not moving very much over the course of the summer, eating nothing but fat rich food would have gained a lot of weight and in fact, I lost about 25 pounds.

**[0:09:13.3] AVH:** Wow.

**[0:09:15.4] NG:** I don't think I was ever leaner in my life than I was when I came back from that trip. Obviously, there's a thermogenic factor involved in all of this. Although I really was very

comfortably bundled against the cold but that said, I knew there was more to this and it really kind of niggled at me.

The other thing too is that I was sitting there looking out over this amazing ancient landscape, realizing that humans had been living there and passing through there for at least 10,000 years or more that we know of and had been thriving in this environment and you know, no veggies. Nothing growing out of the ground and because there was permafrost, that anybody could really consume plant food wise. It was all pretty much going to be meat and fat and yeah, they probably chowed on the stomach contents some but nonetheless — of the animals that they hunted I should say.

That said, plant foods would have played a pretty insignificant role in the diet of this people groups and I'd spent a little time prior to going to Ellesmere, there was another island, I think it's Cornwallis Island where there's a little tiny village called Resolute Bay and there were a couple of hundred Inuit people living there. I was — those folks there were living at that time roughly in 80% I was told subsistence lifestyle so they were going and hunting seal and walrus and whatever else and you saw frozen seals laying in people's front yards because it was natural refrigeration you know? It was like a natural freezer.

Polar bear skins draped over the front porch and things like that and very bored looking sled dogs laying around. You know, the people there actually looked pretty healthy at that time. I'm guessing things are changing because they seem to be throughout the arctic now. At the time, there was one tiny little, we're talking miniscule little store and it had some of the modern foods of processed foods and things like that that I think people probably liked but they're expensive and a few wilted vegetables got flown in maybe once every week or two to go to the general store.

They really just weren't a going concern in people's diets that much at that time and I didn't see obesity there, I didn't see a lot of what looked like health problems and the little kids are outside playing at one in the morning without any gloves on and wearing their Teenage Mutant Ninja T-shirts and stuff and they just seemed really happy, just happy and rosy cheeks and they just seemed like happy, healthy kids and I'm sitting there thinking about this going, "These people

aren't eating vegetables. How could they possibly not be fat right? How could they possibly be healthy?"

It was just something that I tucked away in the back of my mind and just thought, "I'm going to deal with that question later because I just don't know where to put that." Then I came back and I stumbled across the work of Westin Price. Suddenly it was like kind of getting gob smacked a little bit on the forehead and going, "Okay, now this makes a lot more sense."

Once I realized how much could be learned through this sort of logical investigation to what our ancestors ate and how that might tell us a lot about what made us who we are and what I could learn about that might very well constitute an ideal diet for us today, I really wanted to dig even further back than Price did. It made sense to me to really go back and figure out what our most ancient prehistoric ancestors had to teach us.

You know, my thinking was this, it seemed logical and rational to me to imagine that the selective pressures we would have faced as a very evolving species would have probably been most responsible for shaping our dietary choices. In turn, those dietary choices would have ultimately shaped our physiological makeup and made it what it is today, while at the same time establishing our most basic nutritional requirements. Bingo.

So that's what led me down the path even further back from the post agricultural and more temperate Neolithic time period to this even more ancient sort of ice age prehistoric time. Yeah.

**[0:13:31.3] AVH:** Okay. So, in the book, you talk a lot about obviously this fat based diet, a ketogenic diet and how it can assist with all sorts of illnesses, support athletic and competitive goal, but you do mention that there are cases where there are some people who may need to tweak the plan a little depending on their needs. Can you talk a bit about who may need to approach the lifestyle a little differently?

**[0:13:53.8] NG:** Well, you know, assume you're healthy but if you are a baby, a child, a growing teen, you know, you're either pregnant or trying to get pregnant, it probably makes sense certainly to add an extra 25% of protein. Well, actually, if you're a baby, you're doing breast milk, you're not having to worry about your protein things.

One of the hallmarks of this book is that it's not a high protein big heavy on the meat kind of diet. I really preach protein moderation because the goal is developing the most effective fat burning metabolism possible. So moderating protein intake is kind of key. But if you're somebody that does kind of need to make new cells, so to speak or you know, you're interested in reproducing or you're pregnant or lactating or whatever else, then a little bit of extra protein maybe 25% more is probably something that you want to consider.

Now, among the other considerations are people with gallbladder issues. You know, gallbladder issues are extremely common and I help people try to identify whether they may have gallbladder symptoms or not and then I encourage them to go work with a practitioner to get that addressed, preferably through restoring healthy gallbladder function rather than parting ways with your gallbladder, if you know what I mean. Which is quite possible to do and the issue of course is that this is a higher fat diet and you want to be able to effectively digest that fat in a way that isn't going to put you at risk.

If you have pain under the right side of your rib cage when you eat or you know you're prone to gallbladder attacks or you have some sort of predisposition to gallbladder problems, you really want to get that checked out and addressed before you start adding more fat to your diet. We really don't want to see any gallbladder attacks that end up bringing you to the emergency room.

**[0:15:58.7] AVH:** Right, I did want to talk a bit about the protein amounts, because that was something that was a surprise to me. You know, when I'm eating for example a normal low carb paleo diet like I'm generally eating about three times as much as the protein you are subscribing, which I would imagine is probably the main thing keeping me out of ketosis but it's something that I always thought was necessary if I'm trying to actively grow muscles.

For folks who are healthy people but they're athletes, they're training for things, they're trying to put on muscle, can you still keep the protein low?

**[0:16:29.5] NG:** Okay, so if you are an elite athlete and you know, you're really challenging yourself a lot, then you might also need that 25% of extra protein but not really any more than

that and the fact of the matter is that a fat based ketogenic approach is extremely protein sparing. You're not using, you're not constantly having to use those branched chain amino acids to make more sugar you know? You're going to actually use them to retain your lean tissue mass.

Most people actually find their muscularity, maintains just beautifully than this dietary approach but if you're an elite athlete, you're an iron man or you're a triathlete or you're doing just lots of really hard training then, you know, you're doing something that our ancestors just probably would have scratched their heads over and said, "Boy, why are they wasting so much energy doing all this extra physical activity they don't have to?"

But, you know, that's how some people are but if you're going to be doing something unnatural, you might have to do something else to kind of — something a little extra to support that just to make sure you're getting what you need to kind of maintain that lean tissue mass but the vast majority of people aren't going to need to do that.

You know, certainly, when we consume protein in excess of what we actually require a fairly significant percentage of that protein will, through a rather slow and laborious process, but still be converted to sugar and use the same way. It's not going to spike your blood sugar but it for sure can keep you out of effective ketosis.

**[0:18:00.9] AVH:** Right, do you think that's a sort of like a major, I guess a bigger issue with paleo folks, once we get past the hurdle of eating too many carbs, do you think that is a pretty significant thing that most people are eating too much protein?

**[0:18:13.0] NG:** Yes, I do and it's not just because of the sugar thing. That's secondary actually to the activation of this metabolic pathway known as MTOR, mammalian target of rapamycin and this was only relatively recently discovered. I wrote about it quite a bit actually in my first book, *Primal Body, Primal Mind*.

I've also talked about it in this book. Basically, the story goes like this. A decade or two ago, these researchers had — they were studying a substance called rapamycin, which is, rapamycin is synthesized by soil bacteria, sort of naturally found but it also seemed to have the

effect and it's actually used in anti-rejection medications and things like that, it's kind of an interesting substance. But they also found that it had the ability to thwart tumor growth.

So drug companies were studying it because they wanted to understand how it worked, what the mechanism of action was so that they could design a drug around that and then charge a million dollars a dose or whatever, just for profitability and what ended up happening was they discovered this whole new metabolic pathway that they never really knew existed before.

They called it MTOR, mammalian target of rapamycin. What they found is that it's basically functions as your body's protein sensor, it's a reproductive pathway and when we consume protein in excess of what we need for our own basic maintenance and repair, this pathway gets triggered and it basically says "Hey, excess nutrients, great time to reproduce." It steps up the cellular proliferation.

Now, if again, if you're a baby, a child, a teen, a pregnant woman wanting to become pregnant, an elite athlete or whatever, that cellular proliferation might be useful to you. But if you're not any of those things, if you're an adult that is either not interested in procreating right now or you're past the useful procreating age, then what are you doing when you're triggering that pathway?

If you've lived on this planet, and in our modern day civilization for a couple of decades or a few decades and you've been exposed to all kinds of toxic environmental compounds and metabolites and things like that. That have maybe damaged our DNA some, that have done some things to mutagenically to your body and then you trigger cellular proliferation.

Basically what you have is a recipe, potential recipe for cancer. It's a really — it's actually much more concerning than the sugar part, although of course, cancer also needs sugar above all else to, in order to survive and thrive. If instead you moderate that protein intake and keep it to just what you need for your own maintenance and repair, it sends a whole different kind of signal and I like to put it in modern day economic terms because people can really relate to this.

It's kind of like your body says, "Oh, not a good time to build a new house right now, can't afford to build a new house right now so let's just fix up the one we've got." So this whole other thing

gets set in motion that is basically a process of repairing your own damaged cells and regenerating you. So it's literally antiaging in its effect. What you're giving yourself by eliminating the need for insulin you know? Minimizing the kind of damage that comes from carbohydrate intake and then you're moderating that protein intake and limiting that MTOR signal. This basically mimics all the same effects that have been gotten from caloric restriction.

You know, we know that out of all the things, all of the antiaging approaches out there, caloric restriction has been the singularly the most successful thing and that it works across all species and more recently they've come to understand that the mechanisms behind that are related to both carbohydrates and insulin in particular and excess protein.

**[0:22:26.3] AVH:** Right.

**[0:22:27.1] NG:** Yeah, and protein. And fat, it does not factor into that whole equation, it doesn't do anything, I mean, fat calories don't, they talk about caloric restriction but what they're really talking about is restricting protein and carbohydrates. Fat in this equation is a free fuel, you can consume as much of that as you want and since, you know, there really is no out of the three major macro nutrients, proteins, fats and carbohydrates of course the only one for which there is no human dietary requirement ever established by science or medicine or anything else is carbohydrates, we can manufacture all the glucose we need to through a combination of protein and fat.

It is possible to have a central fatty acid deficiency. It's important when you're moderating your protein intake that your digestion be really spot on, that your digestion be really functional. Some people if they're older, they might need to add some hydrochloric acid or some pancreatic enzymes to their meal time in order to more efficiently make use of this moderate amount of protein.

You know, it's going to, I think, dramatically improve the way they feel and function and by not limiting the amount of fat that you take in, in other words, eating as much as you feel like you need to in order to satisfy your appetite. You don't feel deprived or hungry but you're still getting all the benefits of caloric restriction without the deprivation.

**[0:23:49.7] AVH:** Okay, this leads me to a good question because, and I'm asking this selfishly for myself but I'm sure if I've experienced it, someone else has to. I've talked to a bunch of folks who are on a ketogenic diet and they find themselves eating less right? Because fat is so satiating.

Some people, some lucky people even say they have like a hard time keeping their calories up because they just don't feel the need to eat as much, right? But you know, I have had circumstances where I'm listening to this and I'm over here eating macadamia nuts by the handful and I'm sure that there is a mental mindfulness thing element there but I do — I mean, I think it's possible that you can overeat fat.

I think that that can undermine weight loss or the goals you're working towards. What is the answer to that besides I guess just suck it up and watch your portions like what's the answer there?

**[0:24:35.7] NG:** The thing to understand about a lot of nuts, although macadamia nuts are actually lower in carbs and peelings nuts are really good for that too but you know, nuts are and nut butters actually tend to have cabs and fat and that's the thing.

Fat on its own is not likely to make you fat, it's dietary fat and the presence of carbohydrate that is like putting a lit fuse on a powder keg. That's the thing, you know? Putting the butter and sour cream on the baked potato, just not a smart idea. Especially if optimizing your weight, weight loss, or whatever is a goal of yours, the two just don't go well together. Fat on its own is just not going to make you fat.

**[0:25:16.9] AVH:** Maybe people just don't understand a lot of cases that many fat sources come along with carbs. People think, "If this is a great fat source, that's it, that's fat." But they're not realizing maybe the other macronutrients that are going into it.

**[0:25:28.9] NG:** Well fat and carbs really, I'm mainly thinking nuts as a common source of those things combined in one food. But in animal source food of course, you don't really have the carbs.

**[0:25:39.4] AVH:** Right, but then you have protein, which could also be an issue too right?

**[0:25:42.8] NG:** Yes, excess protein can definitely be an issue and that's the thing, over consuming protein is something that can stop the most effective form of ketosis in its tracks, of course, you know, Atkins called what he promoted a ketogenic diet but it really was a very weak ketogenic diet. Excessive amounts of protein really is not — you'll produce ketones that way but you may not be utilizing them effectively.

I actually believe that people who consume the Atkin's diet, they went from a real dependence on glucose as a primary source of fuel to, I believe, still trying to rely on glucose through the excess protein. That kept the cravings going and it's, I think, one reason why so many people failed on the Atkin's diet, frankly.

**[0:26:34.8] AVH:** Okay, this might sound silly to say but I'm really glad that a woman wrote this book because it seems like a lot of the conversation around keto, they're talking about a standard test subject, right? Which is inevitably a man and I feel like I'm reading so many things where there's just this caveats at the end that say, "Oh and keto may not work as well for women," and I've just been lucky recently to talk to Robb Wolf about this very same thing and you know, he was saying that that may not be necessarily true. It could be more of sort of an individual challenge than a gender based one.

Can you talk about that? Like, do women react differently to this diet or not?

**[0:27:09.7] NG:** Well you know, they can, there are hormonal differences right and we are more estrogen dominant than guys are and estrogen is anabolic and all that kind of a thing. But I have not found that, I mean, I have not found any — I'm a post-menopausal woman and I have not found any difficulty maintaining a state of ketosis, of effective ketosis.

You know, but the thing is that a ketogenic approach to eating is not the only thing to consider if you are wanting to, for instance, lose weight, I don't know if that's what you're referring to? Or is it just adopting a ketogenic metabolism.

**[0:27:48.0] AVH:** Yeah, just adopting it, just getting into it. I feel like there's always this kind of this comment that, "Well it will be harder for women to get into ketosis and to kind of maintain, it's just harder," but there's never really an explanation.

**[0:28:01.1] NG:** Yeah, you know, and the fact of the matter is, it hasn't been studied that much. Our hormones and our monthly cycles and things like that make us harder to study for this researchers because they have to factor all that in and whatever else and they'd rather just work with guys because it's all straight forward. But that hasn't necessarily been my experience.

Now, women are about 18 times more prone to developing say Hashimoto's for instance. We're a lot more prone to a lot of autoimmune diseases and to a lot of inflammatory processes that can also kind of stop things like weight loss in its tracks and impair the ketogenic process by generating more or by having more hypoglycemic issues or because I've never met somebody with Hashimoto's that wasn't severely hypoglycaemic or that didn't have a real problem with blood sugar and trying to get out of it.

Or you have lots of people that may have say depressed cortisol and ,you know, I wrote about that in my other book, *Rethinking Fatigue*, all the reasons for that. It doesn't have to do with adrenal glandular issues. You know, there are some things that can predispose you to having a harder time in adopting a fat based ketogenic metabolism and I talk about that in this book.

And women are more prone to some of these things but my experience hasn't necessarily been that women have a really tough time doing it. That hasn't been my experience. For me it was really, really easy.

**[0:29:33.8] AVH:** That's good, that makes me feel better because it always made me sad that there seem to be this mini-barrier even as you are learning about it that's like, "This is going to be harder for you," so it's very comforting to know.

**[0:29:45.5] NG:** So here's the deal, part of what's controversial, I think, potentially controversial about my book, I have a couple of different hypothesis in my book that haven't been put out there before. One being that fat isn't just as bad as we once heard or it's okay as long as its

olive oil and avocado oil and some coconut oil or something like that once in a while and that we avoid saturated fat, or its okay as long as you keep it to a minimum or whatever.

My whole thing is that dietary fat is literary, not only literary central to human health but it's literary central to what made us human in the first place and a fat based basically ketogenically driven metabolism is quite literary the natural state of human kind. It's this glucose thing that is dependence if not enslavement to a dependence on glucose is the truly unnatural form of metabolism that is absolutely mainstream.

99% of everybody out there has a glucose driven metabolism. It hasn't necessarily been kind to us and when you look at the range, on the astonishing range of benefits and it literary goes on for pages, all of the things that a fat based ketogenic approach seems to be able to do and how safe that it is and how effective that it is for so many things. After a while, there wouldn't be that many benefits if it were unnatural thing for us. It's something that we're actually designed to operate that way.

So if women are having a harder time with it or if anybody is having a harder time with it, it has to do with certain modern day circumstances that are interfering with our own natural function and you may need to strategize things a little bit better and again, I have a lot. I address some of the more common kind of stumbling points and pitfalls in my book but it's doable quite literally. It should be doable quite literally for pretty much everybody.

**[0:31:47.0] AVH:** Right, so speaking of modern day circumstances believe it or not, I have a couple of vegetarian friends who I will be asking to listen to this podcast.

**[0:31:54.7] NG:** I do too, yeah.

**[0:31:55.4] AVH:** So in the book you call vegetarianism a modern day experiment right? Because as you just said, humans basically became human by eating animal fat and growing our brains. So my question is, "Where does that leave modern day vegetarians like even Paleo ones?" If they have this real moral issue with eating animals even sustainably raised and produced ones, can they maximize their current diet by supplementing with MCT oil and coconut oil? What do we say, what do we do?

**[0:32:25.0] NG:** MCT oil, you can become ketogenic doing that but you're not really going to be able to provide your brain with a kind of substrate that it needs for its own optimized functioning. There are two fatty acids in the human brain that are most responsible for human cognition. There are 20 and 22 carbon fats, arachidonic acid and docosahexaenoic acid and both of these are exclusive found in animal source foods and if DHA isn't in your diet, it isn't in your brain.

Now you can go out and try to take some of these algae products that supposedly or plankton or whatever based DHA but they have fairly questionable extraction methods and it certainly not necessarily a natural source of nutrition for humans, but we are absolutely designed to eat an enormous variety of animal sourced fats and our brains are constructed from the very fats we choose to supply it with by what we choose to eat.

And we are by far designed more than any other primate to get the most of our calories from animal sourced foods and fat in particular and it's really, really interesting actually. I mean there is no evolutionary or physiological basis for vegetarianism, especially veganism, anywhere. I mean, in the human fossil record, in our physiological makeup, when you look at the animals that are actually designed to eat an entirely plant based diet, the herbivores.

Well number one, their physiology is completely designed to do that. What are they doing all day? Their faces are in the bushes, they're in the grass, they're eating constantly in order to try to meet the metabolic and energetic needs of their bodies but it's really interesting to point out that a cow even gets at least 70% of its caloric intake not from carbohydrates but from the short chain saturated fatty acids from the bacterial fermentation of all that fiber they spend all day consuming.

So all large mammals are actually designed to rely on fat as a primary source of fuel even herbivores and this is true also of things like gorillas, which by the way have a brain only about a third of the size you would expect for a primate of their size and all primates with the exception of gorillas, by the way, do eat some meat. All of the great apes do eat some meat. But like a chimpanzee, for instance even though they'll eat small animals that, they can catch from time to time and that kind of thing, they still have a largely fermentative based digestive system.

Even so, they're still getting roughly 60% of their caloric intake from those short chained saturated fatty acids from the fermentation of the fiber that they eat all day long but they also have a much bigger colon than we do to do that with. It's bigger and you look at the gut of a chimp and it looks like he's been drinking beer all day long. It's like this big vat, this big fermentation vat that he's got and human digestive system is much smaller.

Only about 20% of our digestive system is our colon and our colon only makes about 20% versus 52% for chimpanzee and so we can't really manufacture more than maybe 5% of our energy that way or our nutrition. We're just not designed to do that. We have a hydrochloric acid based digestive system that is instead designed to get the nutrients and all the fats and essential fatty acids and whatever else in a form that our bodies and brain especially can use from the animals that have already synthesized those things for us. That is how we are designed.

You know I'm sympathetic as I can be actually to many of the humane concerns that are shared by vegetarians. As a matter of fact, if you want to talk about what's going on in factory farming and these CAFO operations, feed lot operations and things like that, it's a sick and twisted business and I'm right there with you. But the alternative isn't necessarily vegetarianism. The alternative is getting our meat from animals that have been allowed to live out in fresh air and sunshine and have lived a humane life and everybody ends up becoming food for something else at some point.

I mean that's the nature of life, there is a cycle of life and death of which we're a part whether we like it or not and I think that this abhorrence and this inability to handle the idea of eating animal sourced foods is symptomatic really of just how far removed we've become from our own natural environment and from our own place in it and I understand it because I've been there. I spent a year or two as a vegetarian or vegan. It was absolutely horrible for me.

But I'll tell you there's also this mentality of "everybody is different. It's better for some people" and that sort of a thing. Look, there is not a different book, textbook for anatomy and physiology for everybody listening to this. What makes us human aren't our differences but the things that we have in common. We all have the same type of digestive system. We all require the same types of macronutrients and micronutrients.

We all have a blood PH of 7.35 to 7.45 that has to be maintained at all time or else. I mean we all have the same types of organs and tissues and things like that. Some have a bigger brain than others but we all have a big brain that we need to maintain and we cannot do that with plant based foods and plant based fats and I know they say, "Well what about flax oil or chia oil or walnut oil or sacha inchi oil?" and all these other plant based sources of Omega threes; our brains can't use that. You know alpha Linolenic acid has to go through a really complex elongation process to ever become EPA, Eicosapentaenoic acid which is an animal sourced omega three which is the form that our brain and body most needs and most uses but the fact of the matter is that if you're of northern European decent or Celtic decent or native decent, you can't make those conversions at all. You lack the first enzyme in the whole biochemical process, delta 60 saturase.

You don't have it but even if you do have it, you're not any of those things and assuming you're thyroid is working well and that there are no other nutritional deficiencies that might impair this elongation process, you're lucky to convert maybe 6% of that flax oil, of that alpha Linolenic acid in the flax oil to EPA. But chances are you won't convert anything to DHA and that's just the reality. You cannot meet your fundamental essential fatty acid and also, fat soluble nutrient requirements with plant based foods.

Vitamin A for instance, the only place you can find true Vitamin A, retinol for which our body has a substantial requirement is animal sourced foods. Vitamin A is not beta-carotene. Beta-carotene is not the same thing, it's pro-vitamin A but again, it's one of those situations where under optimal circumstances and assuming you don't have say low thyroid function or hepatic problems or whatever else.

And assuming that you're beyond the age of six because young children also can't make these conversions. It still takes six to 20 units of beta-carotene to make a single unit of Vitamin A. There is no possible way you can meet your Vitamin A requirements with eating carrots and by the way, even beta-carotene is a fat soluble nutrients and if you're gnashing on carrots and you're not including fat, you are not absorbing that beta-carotene anyway.

By the way, there's lots of beta-carotene in a 100% grass fed and finished meat. Lots of it and in egg yolks, you can get beta-carotene in other things. I probably eat, and this is almost a tripe

phrase now but it's true, I probably eat more vegetables and a greater variety of them, fibers, vegetables and greens than most vegetarians do and I can get all the benefits of a vegetarian or vegan diet without any of the risks associated with that. Without any of the detriments associated with that.

I'll just finish that thought, vitamin D3 in food is only found in animal sourced foods and it's found actually in the body fat of animals. Yes, you can get D2 from some plant sources and then you can try to shine sunlight on yourself and see how much vitamin D you produce that way but you better have enough cholesterol for that and you'd better not rely on that and obviously if you live in any place other than a tropical environment, you're probably not going to be too successful at making the D3 that you need.

Then vitamin K2 is the most needed form of vitamin K. Vitamin K1 is found in leafy greens and things like that but the Vitamin K1's primary thing is to enhance blood clotting. Vitamin K2 on the other hand is what lets you make and works together with vitamin D3 and retinol to help your body make the healthiest possible use of the minerals you consume to grow healthy bones, to keep your heart healthy, to do all kinds of things. It's just as important as vitamin D3 and in fact, if you are taking D3 and not getting K2, you're going to be in a world of hurt. You'll be calcifying things that were never meant to be calcified. So anyway.

**[0:42:05.8] AVH:** So on this topic here of vitamins and minerals, I'd like to talk a little bit about supplementation and I know you mentioned at one point red meat especially lamb I think it was, which is delicious. We should all just eat lamb. It has a lot of L-Carnitine, which is something that helps burn fat right? So what about like that's another thing in the body building community, I know a lot of people take L-Carnitine supplements, is that something if you're not eating enough red meat can you supplement with that?

And then in addition to that another question I had, you mentioned exogenous ketones and those maybe having your place but you don't use them indiscriminately obviously just because you're putting it in your body doesn't mean you are using them but talk a little bit about some of these supplements and maybe when they're appropriate, when they're not.

**[0:42:50.7] NG:** Right, you a little extra L'Carnitine that can be helpful. Its purpose is to help move fatty acids into the mitochondria so that they can be burned for energy and so very helpful for that. There is an issue of if somebody has a thyroid issues, you don't want to be taking more than about two grams of it per day, it can actually interfere with thyroid past a certain point but that said, yeah. The exogenous ketone thing, I'm not a fan.

You know ketosis has become the sexy interesting thing and lots of people are into it but just as sort of human nature is just such a crazy quirky thing. They're just thinking, "Oh you know if I can go into ketosis without actually having to give up my carbs wouldn't that be cool?" Right? So they're looking to literally have their cake and eat their fat too and this is not smart. It is not smart. So what you are actually doing — there is no natural circumstance under which your body would have elevated blood sugar and elevated ketone simultaneously.

Except in the circumstance of something that I think we've all heard we want to avoid], which is ketoacidosis. I'm just waiting for somebody to get into trouble with that. This is not a natural metabolic state and just because you are sucking down the ketones doesn't mean you're using them and by the way, you're burning somebody else's ketones and not your own, right? You are basically taking ketones from outside your body and you're burning those.

But if you are producing insulin through the consumption of carbohydrates, you can't burn fat at the same time you are producing insulin no matter what you're doing and so it's a crazy thing that you are setting yourself up for.

**[0:44:42.4] AVH:** Would you say like if someone is doing a proper ketogenic diet and maybe I don't know, they bring it like something, they're going to be on a plane. They're going to be travelling, they don't have any food or it's just never necessary because you're imposing...

**[0:44:55.3] NG:** Well here's the deal, the name of the game is not more ketones. The name of the game is being able to efficiently produce your own ketones and then be able to effectively use them, that's the name of the game and more ketones is not necessarily improving your own utilization of ketones. Now I think as a transitional tool if you are trying to adopt the state of healthy ketogenic metabolism and you are trying to avoid some of the ketogenic flu symptoms

that some people go through because you are converting your engine from burning rocket fuel into diesel and that takes time.

For some people, there's a little bit of a metabolic purgatory in there that they experience where they are more tired or whatever else. Exogenous ketones can be somewhat helpful in that way but it's one of those things, and I do know some athletes that find that they improved their performance, if they have a special event or something like that they take a little extra of say Dom D'Agostino's product, *Pruvit* or something like that and it helps.

Okay, make it a sporadic thing, make it a temporary thing but do not make it a regular thing. We're also talking about synthetic ketones, ketone salts, only half of which is something your body recognizes as natural and yet they're very hard to measure because of that. You're only really seeing a part of what's there when you test your blood and you see, "Oh yeah my ketone levels are up." Well they're way up because they're the synthetic ketones in there that aren't necessarily registering on that blood ketone meter.

That's potentially problematic, you can overdo it pretty easily. Again, you're not burning your own ketones. You're burning exogenous ketones. By restricting carbohydrates and moderating your protein intake, you can actually produce all the ketones you will ever want or need. Doing that and then your body can use them a lot more efficiently and effectively and that's the way to do it. Now if you want to augment your ketone intake or say you have Alzheimer's.

Or you're one of those APOE four variants that's maybe having a hard time converting fatty acids into ketones, a C8 form of MCT oil and it's basically caprylic acid is what it is and the person who seems to have a corner on that market is Dave Asprey with the brain octane product that he sells. That stuff is really genuinely effective and helpful for a lot of people, particularly during the transitional phases or whenever you might need an extra boost.

At least with that your body is going to convert maybe three to five times more of that into ketones, utilizable ketones than you would be able to from say just coconut oil or regular MCT oil alone and it can help during the transitional phases and in cases where people may have difficulty getting into a state of effective ketosis. I prefer that, personally, to the exogenous ketone supplements, which by the way don't work exactly the same way in the body.

They actually produce less ATP than your own natural endogenous ketones do. They actually have the potential to damage NAD structures in your cells overtime. So I definitely wouldn't recommend them for somebody who is suffering from seizures or having other metabolic problems like Alzheimer's or whatever else. I don't think it's a good idea at all.

**[0:48:25.7] AVH:** No shortcuts basically.

**[0:48:27.6] NG:** Yeah, right. Ultimately what you want to do, the name of the game is making your own ketones by eliminating carbs to the extent, utilizable sugar and starch and moderating your protein intake and then eating a variety of fats from high quality natural sources and that is going to set you up for the healthiest possible aging and wellbeing.

**[0:48:54.2] AVH:** Got it. So you said earlier too that it can be, if we're being honest, it can be a challenge for folks to transition from sugar burning to fat burning and I think, I mean it's also, as you outlined in the book, it's easy to get knocked back out of ketosis once you found yourself into that groove. I think that maybe some people who aren't even necessarily testing their ketones or testing may think they're in ketosis when they're not.

My question, I suppose and maybe this goes back to no shortcuts but can you be a primal fat burner without actually being in ketosis? If you are on a lower carb diet, you found the foods that are right for you, maybe you're one of those athletes who's working really hard and so your carbs and your protein are a little bit higher, you're not technically in ketosis, are you still doing okay or is it like an all or nothing thing?

**[0:49:42.6] NG:** Well, the term "primal fat burner" literally refers to adopting a fat based metabolism as opposed to a glucose based metabolism and that will ensure that you are going to be healthier and have the potential to live longer by far if that's what you're doing. If you're just trying to eat, doing the "JERF thing," just eat real food you know? Yeah you might do better than these standard American diet population. I don't think that's it's possible to be optimally healthy doing that.

I think that there are going to be, over time, increasing metabolic challenges and the potential for a more rapid aging and just less optimized function in general. I see a dependence on glucose as basically a form of enslavement and frankly, everything in our society is set up to keep us there. I can't think of no major multinational corporation anywhere on the planet that wouldn't be heavily invested in every man, woman and child being dependent on the carbohydrate based diet.

It's as cheap as hell to produce and it's extremely profitable. There's no way you can make a 5,000% profit on a grass fed steak like you can in a box of cereal and it basically keeps you perpetually hungry. "Well, what's not from Monsanto and Nabisco to love?" But it's not just them. It's also not just big agro business, not just the food industry, it's also the chemical industry, the biotech industry, it's Big Pharma, pharmacologic industry, the medical industry, the weight loss industry.

I mean undertakers are making out like bandits. It seems like everybody is profiting from our carbohydrate based addictions but everybody's benefiting from that except the people who are actually eating that way. It's just not optimal and I know that there are people that can feel relatively healthy and seem to do okay eating a carbohydrate based diet. But I am talking about adopting the dietary approach that I think, number one, is based on our evolutionary and genetic heritage most closely. But also that takes human longevity research most into account and all of the things that are likeliest to benefit us long term.

**[0:52:04.4] AVH:** Yeah. All right real talk from Nora, no shortcuts.

**[0:52:08.4] NG:** Yeah, I guess we should say, I don't tend to sugar coat things.

**[0:52:11.9] AVH:** Right, not at all. I mean and that's why you're book is important, I think. Like you said, our world is set up against us and it's good to have these resources and have some kind of hope that there are other better ways to do it, right? I feel like we could talk about your book forever but we do have to come to close here soon, will you be at Paleo f(x) again this year?

**[0:52:30.8] NG:** Yes, I will be at Paleo f(x) this year.

**[0:52:33.8] AVH:** Cool and what's your schedule? What will you be chatting about, your book?

**[0:52:37.0] NG:** Well an aspect of it yeah basically. I'll be talking about what made us human in the first place, kind of talking about it from that standpoint.

**[0:52:45.5] AVH:** Cool. Awesome. Well, Nora thank you so much for your time and thank you for this book. I already actually have my copy on loan, I hope I get it back soon.

**[0:52:52.9] NG:** I actually too want to make a pitch for, I have a new program that I have launched fairly recently that people are just loving and it's called Primal Power 52. A lot of people really loved my old podcast and have asked me to bring it back, but I think what Primal Power 52 does is like that on steroids. It's a weekly educational informational program designed to help people make the most out of transitioning to this lifestyle and the most out of both understanding and getting the best results with their own health and I've been getting fabulous feedback on that and people can go to [primalpower52.com](http://primalpower52.com) to find out more about that. So I just want to throw it out there.

**[0:53:37.0] AVH:** Awesome, yeah. I'm going to check that. We'll put that in the show notes too so folks can get access to that. That's great. Awesome, well thank you again for your time and I look forward to meeting you in person this time at Paleo f(x). I've listened to you a bunch, but now I'm going to come and introduce myself. So I'm looking forward to it.

**[0:53:49.7] NG:** Yeah, we'll go out for beer and donuts, eh?

**[0:53:51.8] AVH:** Yes, exactly. Perfect or moose whatever.

**[0:53:55.3] NG:** Yeah, whatever moose burger or something like that yeah, totally.

**[0:53:58.4] AVH:** All right, take care Nora. Thank you very much.

**[0:54:00.0] NG:** Thanks Ashleigh, you too. Buh-bye.

[END OF INTERVIEW]

**[0:54:01.9] AVH:** So that's all for today's podcast with Nora Gedgaudas. Thanks for listening in. You can learn more about Nora, her educational program Primal Power 52, and all of her books and events at [primalbody-primalmind.com](http://primalbody-primalmind.com).

Next week, we're talking to Walid from Desert Farms which is a company offering camel products from camels that are living on family farms all over America. They have camel milk, meat, and fat, and even chocolate and skin care products made with camel milk. I've tried a bunch of their products and I am on board but you may be starting to learn this about me. I don't think I've met an animal yet that I wouldn't enjoy eating.

So anyway, if milk is still on the table for you literally, camel milk can be a pretty good option, you will learn more about its prebiotic properties and how it differs from cow's milk. So if you're interested, check out our podcast next week. Subscribe to Paleo Magazine Radio on iTunes or Stitcher.

One last shout out to our sponsor, Ancient Nutrition, and their delicious bone broth protein. This is no kidding one of my favorite protein powders out there. It's gluten-free, dairy free, soy-free, non-GMO and made with high quality ingredients like collagen, which is so hot right now for a good reason and it mixes really well.

It's low sugar and low carb and even more exciting for me, it comes in super cool flavors like turmeric, coffee and cinnamon apple as well as your more standard chocolate, vanilla, and unflavored options. Bone broth is delicious but sometimes you want your collagen and protein in cinnamon apple smoothie form right? So anyway, find out more about their protein products like pre-workout at [ancientnutrition.com](http://ancientnutrition.com).

[OUTRO]

**[0:55:41.8] AV:** Paleo Magazine Radio is brought to you by the Paleo Media Group and is produced by We Edit Podcasts. Our show music features the song *Light It Up*, by Morgan

Heritage and Jo Mersa Marley, and on behalf of everyone at Paleo Magazine, thank you for listening.

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