

Episode 105

Robb Wolf: Hey, folks. Robb Wolf here, the ever large and in charge Greg Everett. Greg, what's going on?

Greg Everett: I'm just trying to not screw this up. I feel like I'm doing everything I possibly could almost wrong so far this morning, but I've been catching up at the last minute.

Robb Wolf: Dude, you and me both.

Greg Everett: Feeling good.

Robb Wolf: I was at BlogWorld yesterday and then flew into Reno last night at like 1:30 and I'm running on vapor. So I've got super sweaty palms from drinking too much coffee.

Greg Everett: Awesome.

Robb Wolf: Yeah.

Greg Everett: That would be good. That means your jaw is going to be working overtime today. I like that.

Robb Wolf: Yeah, yeah, probably just spewing inaccuracies.

Greg Everett: Perfect.

Robb Wolf: But that's what we're good at.

Greg Everett: That's my favorite kind of podcast.

Robb Wolf: Seriously. Anything new? Anything exciting that folks need to know?

Greg Everett: Oh, geez, I wish I had something exciting to say, but I really feel like there's nothing going on right now. I have so many things in the pipeline right now, and I think I mentioned this a couple of podcasts ago. I don't like talking about them until they're done because I feel that just--

Robb Wolf: Jinxes it.

Greg Everett: Jinxes it, yeah, and it just sets me back even further. So I look forward to some possible new things sometime in the unspecified near future.

Robb Wolf: In an incredibly undisclosed manner. It sounds like a drug deal.

Greg Everett: They may or may not be interesting to you.

Robb Wolf: It sounds like a drug deal. We may have something for you or we may not.

Greg Everett: Yes. Oh, boy.

Robb Wolf: Cool.

Greg Everett: So how about you guys?

Robb Wolf: I was just at BlogWorld which was cool. I got to hang out with some cool folks there. That was at the LA Convention Center and then I flew up to Reno because it looks like we're going to be moving here. So we kicked around a couple of different spots all the way throughout Seattle as a potential spot, but it was kind of funny.

Greg Everett: Don't do it.

Robb Wolf: I don't know if it was God trying to intervene, but the day after I threw that out to the world, we had five days straight of overcast and rain in Santa Fe which like never ever happens, and I was fully ready to do the Kurt Cobain thing and I was like, "Okay, we need to live someplace that sucks." So Reno is cold, but Nikki's dad lives here. We're two and a half hours from the gym and we've got some projects brewing with the gym that we need to be closer to to develop, but Reno will in fact be the first town that I've lived in that has a legitimate airport so that's going to be amazing.

Greg Everett: That's very helpful, I can tell you.

Robb Wolf: Yeah. After like 5 years of doing 25 to 30 trips a year and living in Chico where it's just a -- dude, we had better airport in Nicaragua when we were staying there so we literally calculated. We could go anywhere from -- we were 45 minutes outside of Managua, Nicaragua and I figured out going to like San Francisco, LA, New York, Chicago, Atlanta. I could go from a Third World country Nicaragua scene to anywhere in the United States faster than I could have in Chico, but yet, we still spent 8 years there. I mean it's a good little town but bad airport.

Greg Everett: Yeah. I disliked how the guy who checked you in was the same guy who went through your bags and then the same guy who loaded the bags on the plane. There's like two employees in the whole place and that's including the pilot.

Robb Wolf: What was the kids' program where the guy would change costumes all the time? I forgot what it was. That was pretty much it. Yeah.

Greg Everett: Okay.

Robb Wolf: So that's all the news that I've got.

Greg Everett: Well, that's exciting. It's too bad they're not filming Reno 911 anymore, the mystery window.

Robb Wolf: Yup, yup, maybe the reunion show possibly. Yeah.

Greg Everett: Cool. All right. Are you ready to answer some incredible questions?

Robb Wolf: Sure. We've got a few goodies in here. Folks may not know but we now have Squatchy doing some work, doing some triaging of emails; and so if the questions are good, then you can blame him, or if they suck, you can also blame him.

Greg Everett: Yeah. I'd take responsibility either way.

Robb Wolf: Yeah, yeah.

Greg Everett: I'm just trying to read.

Robb Wolf: He is doing a great job. You're doing a good job too.

Greg Everett: All right. David says, "I want to live a long life, but don't want to go down the road of calorie restriction. Eating small amounts of food and looking gaunt and skinny and being hungry all the time isn't for me. I've reviewed some of the scientific literature regarding the amino acid composition of meat, eggs and dairy, and I see some evidence that eggs in particular are high in three amino acids that are associated with ill health, and shorter life spans (methionine, tryptophan and cysteine). Studies have shown that restricting these three amino acids found in meat and eggs is just as effective for extending life as restricting calories.

Unfortunately, eggs and to a lesser extent, meat are a significant part of my diet. I would like to reduce my intake of these amino acids or at least

balance my overall amino acid intake, and have been including lots of gelatin in my diet, which is high in glycine and other amino acids, but almost completely free of methionine, cysteine and tryptophan. If I reduce meat intake, and keep eating gelatin and fish, I believe I can still maintain muscle development. I also supplement the amino acid leucine to build muscle.

What are your thoughts regarding my desire to eat Paleo, build muscle, and achieve my goal of longevity by avoiding these three amino acids?"

Robb Wolf:

This sounds like a wacky question, but it's actually pretty good and some decent thinking going on here. For a long, long, long time, the whole calorie restriction thing, we are looking mainly at calories, possibly at carbohydrate, and then it's looking more and more like protein may be a significant factor in this, particularly some mTOR signaling.

At the end of the day though, Mat Lalonde and I talked about this stuff, and my gut sense and we may modify this over time, but my gut sense on this and I talked to Mat and I've talked to Chris Kresser and talked to some other folks about all this stuff, I think that to the degree that we're going to see really significant longevity improvements.

It was the opinion of Loren Cordain that if people avoided gluten that we would probably bump the average life span of humans, Americans, from 75 years average life span to 85 years average life span, just like gluten is so pro-inflammatory and causes so many problems that we would on average bump the life span up to an average of 85 years with modern medical intervention and all that stuff. But generally, people would be much, much healthier along that whole course. He added the additional caveat that if people went full-on Paleo, did smart exercise, had good vitamin D levels, all that sort of stuff that we want bump average life span up to 95 years.

So with some very, very simple interventions that are not austere, that are not limiting protein intake or anything like that, we could basically stick another 20 years potentially onto average life span for like modern Westernized humans, which to me seems like a shocking return on investment like really minimal tweaking in your dietary practices and lifestyle considering you get to eat steak and fish and lift weights and go to bed a little early and take some vitamin D, and all that stuff will converge in a way that you could shift average life span from 75 years to 95 years.

Now, from there, my gut sense is that to really get something quantitatively longer, we're going to have to do some pretty good austerity practices. Maybe intermittent fasting will help a little bit, but then we've got a little bit of a specter of elevated cortisol hanging out on the back end, maybe this protein partitioning where we're really, really trying to limit things that are triggering the mTOR pathway and some of these growth and proliferation pathways from a health and longevity perspective.

Maybe you could do some of that stuff, but it seems like we're getting really, really a flat line on the return on investment. We're starting to invest way, way more, in my perspective a much more marginal return. And it's not to say, "Don't do this." It's not to say, "It won't work."

But we have some pretty interesting insights into very long-lived people, and they just had this woman who basically lives in the Amazon in a horticulturist/hunter-gatherer group and she's like 124 years old. Obviously, she has always been active. She has always had good community. The food has been good. But I don't think that she has probably practiced like overt calorie restrictions. She hasn't practiced overt protein partitioning the way that we're talking about. Maybe she is eating more fish and small game versus like meat and maybe that does shift the genetic expression a little bit on that mTOR pathway.

But I guess for me again, if we focus on inflammation, we focus on vitamin D, we get some good sleep, we do some smart exercise, we have good stress control and all that, to me on that performance/health/longevity interface where I'm trying to do minimum investment/maximum return, that seems like the goods to me. And again, that isn't to say maybe excluding eggs might buy you a little bit more, but my gut sense is that's the outer kind of fringe element where you're going to get really, really quick easy returns with this other stuff.

I might modify that over time, but some of the modifications that we're talking about here we're probably talking about potentially a smaller, less muscular, less dynamic diet and all the rest of that stuff. So I'm a little hesitant to recommend it. If folks want to play with it, that's totally cool. I think we'll have a good idea on some biomarkers that we could track here in the next couple of years so that if you're playing with something like this, we could say, "Okay, we see a gene expression. We see a proteomic expression, manufactured proteins that are consistent with what we would expect to see in a long-lived individual." But obviously, we won't know until the end of the run on that whether or not this stuff actually plays out and is beneficial.

Greg Everett: All right. Well, all that being what it is, let's talk about something more important and that is bacon.

Robb Wolf: Indeed, indeed.

Greg Everett: Tom says, "Hi, Robb. Love the podcasts and the Paleo Solution book. Can you clarify your opinion on the consumption of bacon? I see differing opinions from two respected experts, those being Mat Lalonde for and Loren Cordain against it. Most other sites seem to be against bacon as a Paleo approved food so I wanted to get your opinion.

Also, is that not good if you have autoimmune like celiac? By the way, I would love to see you and Mat Lalonde do an extended video series as you are both extremely smart and great speakers."

Robb Wolf: Mat has good hair too, so that would be a serious bonus. How do I want to tackle this? Loren Cordain is my mentor. He is my close personal friend. But when he wrote his first book, I think a lot of the perspective was coming not so much from a clinician perspective like actually trying to get people to eat a particular way day in and day out.

It's kind of interesting. When you look at some of the academic-oriented books that have been written, I would put Loren's in that camp versus say like Mike and Mary Eades who were physicians and working with people. I'm trying to figure out, "Okay, how do I actually convince people to do this stuff?" I would put myself more in the clinician than the academic kind of scene because we own the gym; and again, I'm trying to make a living and one of the best ways to do that is to get people success.

And it was interesting when I went through the original Paleo Diet book when it came out in 2001. You look at that stuff and there were some things like, "Don't use balsamic vinegar because of the acid load. Don't eat bacon because of the salt again for the acid load but also because it was kind of high in saturated fat."

Loren has completely modified his stance on saturated fat. I got proof of his next book. I'm providing a little bit of editorial feedback on his next book, which should be due out somewhere around the first of the year, and he has really modified his stance on that.

But there were a couple of things that I noticed when I started talking to people about application in their diet and like bacon and like balsamic vinegar and salt were these things that you would pretty good buy-in and

you'd sell people on Paleo and celiac and all the rest of that stuff. And then as soon as you said, "Okay, no bacon because it's got a lot of salt and some fatty acids maybe squarely, or you're going to use lemon juice instead of balsamic vinegar," people were like, "F that; I'm done," and they were gone like just an ejector seat kind of gig.

So that was one thing that I was kind of like from a compliance standpoint. If I can get people off of like bagels and pizza and high fructose corn syrup and all the rest of it and my tradeoff is that we keep some balsamic vinegar and some bacon in the mix, that seems fine. I sat and really thought through like the biochemistry and fatty acid metabolism and all that stuff, and I was like, "I can't really see a problem with this stuff one way or another."

And if it's a deal breaker for people, then it seems silly to get freaked out on that point. And so that's my perspective on why I've always kept the bacon in there to say nothing of the fact that it's delicious and amazing and kind of makes like worth living and all those silly side details.

So I don't see a problem with it both from a fatty acid standpoint. There are some people that even when they're eating low carb, they do not respond well to sodium intake. They'll get a sodium-induced blood pressure increase. So those people are going to have to figure out what they're up to. They need to buy some low sodium bacon or they need to just keep an eye on that stuff.

For autoimmunity and celiac, the bacon may or may not be a problem. There are some people that really are sick enough and kind of damaged enough that they need to stick with grass-fed meats. So kind of along the line of when we had Kurt Harris on the podcast, he was only consuming or mainly consuming grass-fed beef and grass-fed lamb. Some people may need to go that direction.

So the fact that pork is even pastured pork typically that's given some grains, that could be a problem for some people; but in general, for 99% of people, 98% of people, I don't think that's a problem. So that's my take on bacon.

Greg, your thoughts on bacon?

Greg Everett:

I like it. I like eating it. In all seriousness, I think it's one of those things that unless you have some kind of overt bad reaction to it, eating bacon every once in a while is certainly not going to kill you. And kind of with regard to the previous question about like uber longevity and all this

stuff, you've made this point over and over again. There's really not point in living to 125 if you're miserable for the last 50 of those years. You know what I mean? So having a little bit of bacon every once in a while is probably going to have you enjoy the years you do have more than you would being obsessively restrictive on your diet in my humble opinion, from a guy who can pretty much eat anything and feel fine.

Robb Wolf: Right. Damn you!

Greg Everett: I apologize for those of you who have a little bit more trouble in that area than I do.

Robb Wolf: Damn you!

Greg Everett: Okay. Well, here is a long one with big words. This might be tricky for me. It's early.

Scott says, "Hi, guys. Sorry for the long question but I feel it best to provide the full story. I'm a 30-year-old 100-meter track sprinter and former National and Pan Pacific Champion and have been sprinting since I was a young boy. I'm a relatively solid guy at 185 pounds and have very developed calf muscles. I have been Paleo about 95% for about a year, although I kind of started moving towards it more like 2.5 years ago.

Over the past few years, I have been experiencing calf cramps. I started out getting cramps at the end of my track sessions which was annoying but not a huge problem. As the months went on, I would notice I was getting calf fasciculations at the end of my session. They would ripple and twitch with little spasms. I started getting cramps mid-session and about a year ago, the cramps would actually occur even if I was doing an upper body workout in the gym. My calves would cramp.

The fasciculations now happen all the time - in bed at rest and sitting at my desk. I have constant twitches. It feels like I have small creatures wriggling around in my calves.

I have had my blood work done and all my levels are spot on. I have tried more magnesium and hydrating. No change. Since going Paleo I'm eating far less volume of carbs whereas in my earlier sprinting years I would eat oats, toast, fruit for breakfast, and more bread and carb snacks throughout the day. I'd be loaded with carbs.

Could it be that my body is just in need of more glycogen stores? My typical breakfast is meat and three vegetables. Lunch is much the same.

Ditto for dinner. I snack on nuts, berries, and dark chocolate and maybe a piece of fruit.

I feel amazing in terms of general health, thanks to Paleo, but the cramping and twitching is really getting me down. I should note that the cramping isn't completely restricted to my calves. Sometimes it can be in other muscles but mostly my calves, and the fasciculations are almost completely only in my calves.

The cramping is so bad now that it's stopping me from competing and finishing my training sessions. What should I be eating as a sprinter to keep fuelled for my track running and weights session? Any suggestions are greatly appreciated. If I can't sort this out with diet, then I guess I should go see a neurologist? Thanks so much."

Robb Wolf:

Shoot! I think the immediate place to look to this is just adding a bunch of Paleo carbs back in the mix and yams, sweet potatoes, bananas, plantains, white potatoes in a pinch, take the peels off and you pretty much make those like a pretty safe, benign starch. That seems like the obvious place to go.

I'm assuming you're probably pretty damn lean, and if you're pretty lean, then I think we start getting into some areas where without carbs then you're going to be in a quasi-ketogenic state all the time. That can have some problems with regards to like calcium homeostasis, whether or not you're keeping calcium in or out of cells, and you might benefit from just throwing some carbs in like that's just the most immediate, quickest fix possible that I could see in this whole thing.

It sounds like the magnesium supplementation hasn't really helped. I would get your vitamin D levels checked; make sure that those are good. Maybe add in some seaweed or like kelp extract, 150 micrograms a day of iodine. That can be kind of a factor in this. A really tight Paleo diet can be a little bit skinny and iodine if you're not eating some seafood here and there.

That's kind of the first place that I would look and I don't think we need a neurologist or anything. I think you're probably just eating a little bit too low of carb. Even Mauro Di Pasquale, when he recommends the anabolic diet or the metabolic diet for folks and he has really good success with sprinters and track and field athletes with that, it's a cyclic low-carb diet; but again, it's cyclic.

And if you're having any type of performance goofiness, he has a really slick flow chart that's basically like if you're very, very well-fat adapted and you're not having performance declination, then you stick to having carb refeeds on the weekends. If you start having some problems with performance, then you start having more frequent carb refeeds, and it's a pretty simple gig and this is one of those things that just as an aside that have always been a little bit reticent or had difficulties recommending the Zone or even getting in weighing and measuring food all that much.

You have to bring some accuracy and precision to the game. If we're going to run a scientific study, that's great. We should weigh and measure our food. But both Greg and I and tons of coaches, Poliquin being one of the primary folks and Mauro Di Pasquale, are just simply looking kind of big macroview at what folks are doing. And if we see some problems with performance, if somebody is not gaining muscle mass and we assume that their digestion is okay, then we up calories and we up protein. If somebody is not really recovering from training, then we up carbohydrate probably and possibly overall caloric content.

So it doesn't require that much fastidiousness to be able to tweak things in a way where we get some very, very high level performance; but I'm suspecting that you're probably feeling good, you have good blood sugar control, and that's all great, but given the volume of the training that you're doing and the intensity of the training, I bet you're running too low on carbs and you'll know if that's the fix that they have immediately.

Greg Everett: I weighed my food one time a couple of weeks ago, and it was exactly one kilo. I will not speak to the composition of that one kilo but it was delicious. All right.

Robb Wolf: It sounds like cocaine crusted nachos or something like that.

Greg Everett: Speaking of cocaine and weightlifters, what's his name? Galabin Boevski, who was a world champion for Bulgaria, just got busted I think in like the Sao Paulo Airport with nine kilos of coke.

Robb Wolf: Holy cat!

Greg Everett: So good luck to him. I hope for the best. I hope he can get a good lawyer. I'm sure he was holding it for a friend.

Robb Wolf: "I was holding it for my aunt, I swear." Wow!

Greg Everett: All right. This guy's name is Womp. That's weird. "Hey, guys. For basically as long as I can remember, I've binged on junk food, mainly sugary crap. One of my earliest memories is sitting under a coffee table in my mom's office, eating what I thought were delightful candies, but which I later learned were simply sugar cubes for the coffee. I've quite literally eaten sheet cake until I vomited." Any amount of sheet cake will usually make you vomit. It's pretty gross.

Robb Wolf: Yeah. It's kind of what it's made for. Yeah.

Greg Everett: "When I started drinking in college, I began drinking just like I tended to eat candy; that is to say, I drank a lot until I vomited." That sounds like college too. "At this point, however, I get sick from candy far more often than from booze."

Robb Wolf: I just have to throw in here; we really in the show notes should put in the Family Guy Ipecac episode in this one. We got to put that in there.

Greg Everett: Oh, man, that is pretty incredible. And for those of you who haven't seen it, why have you not seen it?

Robb Wolf: It is amazing.

Greg Everett: "When I have a drink, it seems to energize me. I end up staying up all night. And I usually put away ungodly amounts of junk food in the process.

Now, judging by the amount I drink, I would definitely qualify as an alcoholic. But I've known alcoholics, and my drinking seems to be of a very different nature. I never get into trouble, there's no discernible psychological cause, etc. I just like to drink a lot.

My desire to drink alcohol feels almost exactly like the same as my desire to eat candy. I recently gave up drinking for a year to see if I could. It wasn't that hard for me, but I think I just replaced the alcohol with candy. And when I've gone cold turkey on the booze and candy for a while, I usually end up drinking stupid amounts of coffee instead, day and night.

I was wondering if you could explain what mechanisms might be at play here. How might binge eating carbohydrates be related to binge drinking alcohol? And how are these related to binge drinking coffee as a substitute? And most importantly, is it theoretically possible to eliminate the desire to binge on these substances with a very low-carb Paleo diet?

How would that work? By the way, I'm a 30-year-old male, roughly 40 pounds overweight.

Finally, I want to thank Robb for all the great work he's done. I've turned a number of people onto his book recently. My 68-year-old father claims he feels better than he has in ages as a result of Robb's advice. I, on the other hand, have been too busy binging on candy and alcohol to actually follow any of Robb's advice. I just read a lot about it instead. I'm hoping a better understanding of why I binge might be the final push I need. Thanks again."

This guy sounds like he'd be fun to hang out with.

Robb Wolf: Absolutely. We're going to try to get you off the booze, but if you don't, tell us where you live and Greg and I will come hang out or we'll meet in Vegas and just have like a stripper and booze fun and we'll go wild.

So I'm by no means an expert on neurophysiology, the neurophys of addiction and stuff like that, but I do know there are certain foods that normally release serotonin. Typically, alcohol is kind of a serotonin releaser so it tends to sedate you. Alcohol is kind of wacky in that it will play up certain elements of the sympathetic nervous system in folks typically and then hit other elements of the parasympathetic nervous system so it's both stimulatory and inhibitory in certain ways, and that's why it's kind of funny with erections and sex and stuff like that because alcohol makes you feel randy but it makes your weenie not work. So it's kind of a funny deal with that.

Greg Everett: There's nothing funny about that, Robb.

Robb Wolf: No, there's nothing funny about that.

Greg Everett: That's like a Sisyphus sort of thing.

Robb Wolf: That's grounds for dismissal. It is very Sisyphian in that regard, touché.

So with people who -- you have some folks that like the first time they try booze the first time -- we'll focus on booze because I was going to mention cocaine or something like that, but cocaine is understood to be a dopamine stimulator right out of the gate, but the deal with some folks who consume alcohol, and I would stick carbohydrate in this also, typically carbohydrate is more serotonin promoting than it is dopamine promoting, but in some people, alcohol promotes dopamine release. I'm suspecting that some people, they get more of a dopamine release out of

a junk food like sugar; and for those people, this thing is much, much more addictive, like almost anybody can consume alcohol to a frequency and a level in which they become physiologically addicted to the alcohol, but for some people, the likelihood of you going to that place is almost immediate.

It's kind of interesting though. You've mentioned that you've been able to forego booze but then you end up substituting other stuff. So I think that we've got some kind of dopamine deficient baseline which I would probably put myself in that area too. When I think about the tendency that I've had in the past for like extreme behaviors like riding a motorcycle in a wheelie for a mile and doing bungee jumping and rock climbing and kickboxing, it took me a long, long time like a long time to figure out that I could have two drinks and stop because I'm such an extreme personality type that I'd have two, and then the inhibitions would drop and then it was like 20 and I was always the dude that was like face down under a bush at the party. It's like I never finished a party standing. It was always like a complete catastrophe.

So I really understand this stuff, and over the course of time, I think that it definitely is very dopamine related. I think this is a lot of why early on, when I first adopted a ketogenic or at least a cyclic ketogenic version of a Paleo-type diet, it was just amazing for me. The angels just sang for the first time in my life. Everything was clear. I could think. I had impulse control, and really my desire or an interest in alcohol really decreased a lot after that.

I'll drink a little bit now, but the desire for it is just not at all what it was; but early, early on, I knew that because of looking at my parents, I probably had a high propensity for addictive behaviors that's why this kid never really played around with the white drugs because I was like, "Dude, I'll be doing hand jobs down on the Mission District to pay for my addiction here in no time."

So I think that there's a lot of potent neurophysiology here, and given what you've laid out here, I would be really surprised if a ketogenic or quasi-ketogenic diet did not really improve the symptomology with this stuff. It might not. Some people, they just don't do really well on a real low-carb diet. I suspect that you would have a hellish transition like absolutely hellish.

But I think if you could pop through the end of it and get 7 to 10 days in a much lower carbohydrate intake, I think you'd start feeling a lot better. As I'm talking about this, I'm remembering some recent research where

they put people on some drugs commonly used to get folks off of either cocaine or heroin and it was very, very effective at helping people with food addiction, particularly like junk food addiction. Nobody binge eats on like pork spareribs and stuff.

Greg Everett: Stephan does.

Robb Wolf: Stephan does but he binge eats on anything. But typically, it's the same thing. It's like sugary food or these high reward trigger foods that folks are having a problem with and not surprisingly. They have some effects on like the dopamine and opiate receptor sites in the brain and kind of get that whole feed forward reward mechanism going.

So there's something to it. It sounds like you're wired up in this way, and it's funny in a way when I look back at my life when I did more extreme stuff. I can't say I was happier because I like a mellower existence. I don't like having insane girlfriends in my life. There's all these things that go together with this stuff because when you're in fights and when you're almost dying from riding a motorcycle at 150 miles an hour like that, you feel very, very alive, but there's obviously a lot of cost associated with a lifestyle like that.

But I think some people are just wired up neurologically that they need that constant really high input either from physical activity, risk-taking or kind of substance abuse-type stuff, and it has taken me a long time to figure out how to get to a point in my life where I can have a good productive relationship and not shoot myself in the foot all the time with counterproductive behavior. It hasn't been easy.

Greg Everett: Yes. Well, you're a better person for it. I really feel like that's what I'm supposed to say.

Robb Wolf: And then as we go offline, it's like, "Dude, you're so boring."

Greg Everett: Yeah. Growing up is stupid.

Robb Wolf: All I can say is luckily, Greg and I did not know each other in our youth.

Greg Everett: We would probably not be doing this right now.

Robb Wolf: We would be dead because Greg and my exploits combined would have been deadly.

Greg Everett: But incredible.

Robb Wolf: Incredibly fun.

Greg Everett: All right. Well, speaking of exploits, Amy has a question about birth control.

"Hey, Robb! First, love the use of..." Oh, gees, this one's a little screwed up so give me a second here to orient myself. "First, love the use of the phrase 'cock block' in the latest podcast." I think it's been at least a couple of dozen podcasts, but... "I was wondering if you could address the effect of probiotics on birth control pills. I know you have a ton of requests/tweets. Here was our brief Twitter exchange. I would love a follow up. I'm currently not taking probiotics out of concern over this, but would like to.

Loving the Paleo life! Down 15 pounds and kicking ass physically and mentally. Thanks so much!" I'm not going to read the Twitter thing because well, it reads like Twitter stuff.

Robb Wolf: Yeah. Okay. First, Amy, quit stalking me. No, I'm just kidding. Amy has pinged me a couple of times on this.

So I did some poking around on this stuff and I haven't seen anything really conclusive on bacterial or gut probiotic changes in different birth control pills, but the thing with that is that you've got a slew of different types of birth control pills. You've got estradiol only. You've got estrogen plus progesterone. All these things get metabolized differently. So it's a fairly complex story.

I wouldn't really worry about it so much like we know that there's such a huge benefit from probiotics. One, I think that that's a huge deal; and two, we also know for a fact that birth control pills can and tend to alter gut bacteria in a way that really isn't that favorable. And so I would tend to do some stuff like sauerkraut or get a good probiotic from New Chapter or something like that and I would run with that stuff. I wouldn't worry about it blocking the effects of the various types of birth control pills.

Now, that said, we're just in this emergent point in history where we're understanding that the types of gut bacteria may dramatically influence the way that different drugs are metabolized. There's a whole lot of drugs that we consume as well as food constituents which are dramatically changed from the time that we put it on our mouth. Like we have one chemical, when we put it in our mouth, when it hits the gut it gets turned

into a different chemical because of bacterial action; and it may have three or four or five steps with that. A lot of different herbal things actually undergo a remarkable change from the point where we ingest it in our mouths to the point where it actually gets into our system, and it's not the same chemical at all. It has been metabolized and modified by gut bacteria.

Dude, it's just the Wild West. I mean as it is right now, we have an understanding that pharmaceuticals have different effects on people based on their different genetic profile. Then we add into that the fact that that can be modified based on activity levels, different nutrient profiles, vitamin D, B vitamins, vitamin A, all that stuff. That can change drug kinetics and metabolism. Then you have the additional caveat in this thing that gut bacteria can modify the metabolism of these constituents.

And so it's a very, very complex process. We're in an infantile stage of understanding with most of it, but by in large, I would stick with using probiotic supplementation is kind of the long and short of all that stuff.

Greg Everett: Yeah. I thought antibiotics were supposed to make birth control ineffective.

Robb Wolf: They can potentially because of the impact on gut bacteria so that's where there maybe some metabolic steps that gut bacteria catalyze in this. But again, we've got a bunch of different types of birth control that can be used when you're doing oral birth control, and so it will depend on what variety you're using, what type of gut bacteria you have, and then what the downstream effects of that can be.

Greg Everett: Okay.

Robb Wolf: But this could be an argument for something like Depo-Provera or something like that where we bypass the gut interface entirely where they're doing the subcutaneous administration of that.

Greg Everett: Just make sure the girl is on top then she can't get pregnant.

Robb Wolf: Exactly.

Greg Everett: Kids, don't try that. It's not true.

Tyler says, "First, thanks so much for the podcast. A priceless resource that's free! Thank you, so much.

I have been listening to the podcast for several months now. Within that time, my wife and I had our first child -- a baby boy." Congratulations, Tyler. "Based on everything that I could find on the internet (websites, forums, blogs, etc.) it's obvious that breast milk is the best way to go. However, my wife is needing surgery which will be when our son is four to four months old, but it also means that she will not be able to breastfeed after the surgery because of some post surgery meds and procedures so we will have to provide some sort of formula or nutrition for our son.

As I've looked into baby formulas, all of the formulas that I've looked at have sweeteners, soy products, and most are dairy-based. So I feel like I just can't trust a commercial baby formula. Is a Paleo baby formula possible? As for adults, we generally avoid grains, legumes, and dairy, with some exceptions, but is that the same dietary guideline for infants/babies? It seems like Paleo guidelines do not apply to infants/babies. Is that safe to say/assume since babies primarily eat breast milk?

I've been searching the web for homemade baby formula. I thought I found something good on the Weston A. Price website." And there's a link here that we'll put on the notes. "I thought the liver-based baby formula would be the way to go, but after reading some of the comments, my wife and I are not 100% confident with the liver-based formula or the other suggested formulas on the Weston A. Price website partly because of amounts of vitamins and minerals that are way above that found in breast milk.

Is the Weston A. Price website a good resource for baby formula? If so, is the cow's milk, goat's milk, or liver-based formula the best option? If the Weston A. Price website is not the best resource for a homemade baby formula, then do you have a homemade baby formula recipe or know of a good resource to get one? Thank you so much for your time and any information you can offer."

I feel like I just said Weston A. Price like 400 times.

Robb Wolf:

And that's a mouthful under any circumstances. So one thought, and I would bounce this off of your pediatrician, one thought is before your wife goes in for surgery, could you potentially bank a lot of milk, do some preemptive pumping, freeze it, and then thaw it out later and use? But I would bounce that off your doc and make sure that that sounds like a kosher, reasonable idea.

From there, I think the Weston A. Price stuff is pretty legit. I would also really, really recommend that you check out Chris Kresser's Healthy Baby Code. I think I got a link to it on my website. I get a little affiliate pinger when folks buy that through the website. It is phenomenal and he covers a lot of this stuff, and a lot of the first foods that he recommends are things like egg yolks and a liver-based kind of pâté/puree kind of gig.

Personally, I would lean towards that in deference to the milk-based products just because I am nervous of some of the autoimmune potential complications from any type of other mammalian dairy that we're taking in. Maybe I'm a nutcase. Maybe I'll modify my stance on that. But just looking at the literature, also looking at the instance of colic in babies that are being given milk and/or when the mom is consuming milk, it just seems to happen constantly, and I don't know if that's a reflection of people not getting grass-fed dairy because we've got some lectins and some other pro-inflammatory constituents in standard dairy. So I'm just nervous about that personally so I would kind of lean towards that stuff.

So I guess kind of the answer to specific questions, I think the Weston Price stuff is solid. I would lean more towards the liver-based products, and I would definitely check out the Healthy Baby Code, and I would bounce off of your doc the idea of potentially trying to bank a month or more of breast milk and see if you can freeze it and give in aliquots and then thaw it out and use it, and see if that all makes sense and that's all cool from like a hygiene/bacterial overgrowth perspective or any other considerations that I'm not thinking through on that. So talk to your doc and make sure that that's all cool here. She may be like, "Absolutely not. That's insane. Don't do it." So I absolutely defer to them on that topic. But check out Chris Kresser.

It would be interesting to see what you do and see what the results are. I know a lot of people are in the same situation. These problems pop up and so it would be great to get your feedback and let us know what you did so that we have at least got one kind of path through the wilderness that somebody has done so that the other folks can look at it and have a template.

Greg Everett: All right. Paul says...

Robb Wolf: This one's great.

Greg Everett: "Robb, love the podcast, lukewarm on your book."

Robb Wolf: Which is hilarious to me like the book is so much better than the podcast.

Greg Everett:

"Maybe have Greg co-author next time." What a dick! Paul, I love that last sentence but I'm lukewarm on the first one.

"Straight to my question..." but it's not really straight to your question. "To what extent is the 'Paleo' term holding back the Paleo movement from taking off and changing even more lives? Found Paleo less than 6 months ago through CrossFit. Since I turned Primal I lost a ton of weight (about 50 pounds) and have experienced all of the other 'stereotypical' Paleo benefits (more energy, stronger, faster, better skin, and even helped what could have been a mild case of depression (who knows on that last one?).

Reading this recent Whole 9 post, something about nutrition in 60 seconds, about how we as Paleo-ers describe our nutrition/lifestyle got me thinking about my own experience and how the whole Paleo/Primal concept just immediately turns people off or otherwise sends the message in an entirely different direction. As if my family couldn't just look at the changes in my body composition and overall level of happiness and want to hear more? Instead I get the predictable 'cave men only lived 35 years' response.

So, while I fully get that evolutionary biology is central to this whole thing, is it time to ditch the 'Paleo' label in order to reach more people? (Not to mention getting people away from the stupid debates about what is or is not 'Paleo'). Your loyal follower, Paul."

Robb Wolf:

This is a really interesting question and I rattle this stuff around a lot. When I finished the first book, it was kind of funny. I was kind of like, "Okay, there it is. It's done. Everybody in the world needs to read it, and now I'll become a coconut farmer in Nicaragua and I don't need to do anything else."

I remember it was about this time last year that we put up that post, "What do you all need?" where we asked, "What do you guys need?" There were some saying things like transcribing the podcasts and some different things which we've done so that we can help serve people better and all that sort of stuff. But I was remarkably naïve in my assumption that my book was going to be the final -- I wouldn't say the final or definitive answer or anything, but from my perspective, I was kind of like, "Shoot, if you read my book, Protein Power Lifeplan or Primal Blueprint or something like that, dude, 99% of all the questions are answered. 99% of people's issues are dealt with if they'll just do it."

But beyond that, how to wrap and package this, I'm not really sure. I would throw back to Paul, if you work with people in any type of day-to-day capacity, whether it's in a gym, it's in a clinical setting as a physician, doing a blog or a podcast where you're trying to educate and help people on this stuff, you are always going to have some sort of confusion, some sort of pushback. If you go to vegan websites and they're trying to get people to eat vegan, people will raise the question, "Well, won't I be protein deficient? Won't I be B vitamin deficient and everything?" They've got their answers to that and they've got to do their education and everything.

So there's always going to be some sort of an educational component to all of this stuff because there's a bunch of different ideas and theories out there and all the rest of it. I've thought about this and I'm like, "Okay, does it need to become the Wolf Pack Diet?" John Welbourn is trying to rebrand his stuff and call what he is doing the Power Athlete Diet because he has Paleo plus dairy and I tease him incessantly about it. But it's cool. He's got a brand in this thing and it streamlines the whole process and he is kind of deemphasizing the evolution background and historical revisionism and all that stuff.

We could build most of these arguments from molecular biology up, but then you're driving people in a way where they need to be pretty sophisticated on digestion and endocrinology and all the rest of that, and then it still begs the question, "Are all carbohydrates bad?" Yes, they are, or no, they're not. It depends on which camp you're in.

So for me, this evolutionary template, yeah, some people freak out; other people, it makes absolute complete sense for them and they buy in immediately. But the thing is that I've pushed things from just simply the low-carb perspective and you end up in an educational process. But just simply saying "low carb" doesn't really address a bunch of these issues related to gluten intolerance and lectins and antinutrients and all the rest of that jive.

So I think the long and short story of this is that it's a fairly complex topic. If people really want to understand what's going on, there's a little bit of education associated with it. Some people are going to buy in. Some people are going to buy in with some bludgeoning and some people are never going to buy in no matter what type of situation they are in or what type of information you present to them.

So I'm open to rebranding it. If somebody has a great idea for it, then let's do it, but I still have not seen something that's better than like the Paleo.

I actually like Primal a little better. It doesn't seem to send people into quite as big a fits of reactionism, although I think like Mark Sisson gets plenty of the 'cavemen lived 35 years' kind of gig. Some people are just fucking morons. I just don't want to argue sometimes.

That's where I'm very hands off on the sales pitch. I put it out there. I'm completely focused on helping the smart people. We'll try to get the smart people to outreproduce the dumb people, and maybe by the time my grandkids hit the scene -- what's that movie? Idiocracy, is that what it is where all the liberal college-educated people hold off having kids and they can never get pregnant and so they end up getting bred out by all the trailer trash and everything? And it is kind of true in a way.

So to some degree, I'm just very much like grab the people who want to be helped, focus on them, and go from there. And again, having been in this scene since 1998 and when it was fringy as it could possibly be and nobody was into it and nobody understood any of this stuff, whereas now we've got a massive social network explosion, the Paleo/Primal concept is in every single media outlet; and so to some degree, I would tell the Johnny-come-latelies and Paul, throw you in that camp. You just need to cool your jets a little bit. I've been doing this a long, long time and the thing is absolutely exploding, absolutely taking off, and that seems like that's a dumb time to rebrand it and just shock all of the sweat equity that we've had in this thing thus far.

But there again, if you've got a different rebranding and you've got a different way of doing this where you can get all of the efficacy, get all of the benefits, cover autoimmunity, cover athletic performance, talk about sustainability, blah, blah, blah, wrap all this stuff together, then by all means, do it. I just haven't seen that yet, and we seem to be in the midst literally of this stuff exploding.

So do I wish it was easier? Yeah, I guess I wish it was easier, but then again, I guess in some ways it's kind of job security for me. There's always going to be pushbacks so there's always going to be a need to educate. So I guess that's good. I just try to not obscure the message just to try to make my job even more secure because I feel like again, there are enough morons out there that my job is secure for the rest of my life.

I have anxiety. I think I have mentioned this stuff before. I have anxiety at night going to bed trying to figure out how do I get this message out just to more people, and it's not necessarily changing the message although if I could refine the message and break it down into simpler steps and stuff like that, that would be great, but there's also a basic reality, and I talked

about this in my book, which Paul was lukewarm about, but I talked about this. 50% of people are going to buy into this thing immediately. You tell them, "Hey, we're going to try this Paleo-type diet which is kind of lower carbs. It's going to get you lean. You'll look good. You'll get a lot of pull-ups." Great! People buy in. Boom! They're done.

Of the remaining 50% of people, about half of those folks, we need to beg and threaten and cajole to get bought in, but eventually, we usually get them bought in so we're up to about maybe like 75% of the population. And then we've got about 25% of the population that again, they're just not going to buy in, and they're going to argue and they're going to be some sort of an armchair expert. Nikki's cousin's husband is this guy that absolutely comes to mind. He was always, "Oh, balance and nothing in extremes and everything, which is just horseshit." So those people, they can go do what they're going to do and they're probably going to be sick and not as healthy, and that's fine. I'm not going to waste time on them.

So I think about this stuff a lot. I wonder if there's a better way to rebrand it. I'm not seeing that there is. I'm completely open to it. But then at the same time, we're in a point where there's a whole lot of time and energy that's been put into building whatever this branded thing is and this concept, and we just need to understand that there's going to be some pushback and there's going to be some buy-in and that's just the reality of things, and that's not really going to change it.

It's still my opinion that we don't have arguments about shit like this in physics or engineering and it's because those things are built upon robust established sciences, and in the nutritional sciences and exercise science, in a lot of medical-related areas, we still do not have evolutionary biology as the basic epistemological template that we look at things to be able to just assess is this question even worth asking? Does it even start begging a look from an evolutionary biology perspective? And because of that lack, we have all this gnashing of teeth and all this different stuff going on.

So if it turns me into either and makes me superfluous at some point, I guess I'll get removed out of the system, but I'm pretty staunchly committed to trying to educate people about the reality of where we come from and where our food comes from and where are our places in the world, and part of that is an educational process, and some of that is going to be somewhat uncomfortable and we're going to lose some people along the way and that's fine. We're just not going to save everybody.

Greg Everett: Yeah. I think Paul, it's really easy as a practitioner on an individual personal level to pitch this stuff to people without the brand name or without any kind of rigid terminology. You can tell your family, "Hey, I'm eating this and I'm not eating this," and they can try it out.

As a gym owner, I can tell my clients, "Hey, why don't you try this?" I don't have to say, "I want to put you on a Paleo diet." I don't say that because I don't like saying that. I don't like branding any diet because it can be off-putting for people. I do understand what you're saying.

But at the same time, on a very broad scale like what we're talking about here, you have to package this stuff somehow or it's impossible to get the information out there. There's no way to do it so you have to have some kind of simple terminology that is a vehicle for this stuff.

Robb Wolf: And the reason for that is that some people are going to ask why, and then you're going to need to start building things up, and again, you could try to build it from the molecular foundations up and look at endocrinology and look at digestive physiology and all the rest of that. That's maybe a legitimate way to go and just look at the incompatibility of grains because they cause gut damage.

But again, there's always then people who say, "Well, why do grains have that? Why is that a problem?" And then it's like, "Well, they evolve to have antipredation chemicals in them." So it's kind of like talking to a kid who is like, "Why? Why? Why? Why?"

And eventually, you have to get down to brass tacks at some point. Why is the sky blue? Well, the light that comes through the atmosphere gets scattered, and because of the makeup of oxygen and nitrogen in our atmosphere in our atmosphere and all the rest of that, the scattering effect creates a typically blue color that we perceive, but it's a light-scattering effect. That's the "why."

Again, like Greg said, we don't necessarily have to lead in with the why, and again, with my book, I told people, "If you don't care about why you do it and you just want to read the results, then skip to the implementation chapter and do it. But for the love of God, you had better not come back to me asking "why" questions because I'm going to pop you in the nose because you had an opportunity to read the science and understand it and to get the whys answered upfront on your own dime, not on mine."

Greg Everett: So like Paul, in your situation, I don't see the problem. You were talking about trying to convince your family to do it. Well then do exactly what you're talking about. Let them see how it has worked for you and then provide them the information on how to implement it to help them do it, give them the support. You never have to use the word "Paleo." No one is telling you you have to. So I guess I just don't see what you're upset about aside from the fact that Robb's book was terrible.

Robb Wolf: Yeah. Apparently, my book sucks. This is also one of those things that the likelihood of you getting your family to buy in is like that is the last place you should look for the first level of buy-in. They just don't do it. So our family always thinks that we're a moron and they're partially right and partially wrong and there you go.

Greg Everett: Mainly right.

Robb Wolf: Mainly right. Are you going to wrap it up with that one?

Greg Everett: All right. Well, that extra bit of coffee definitely pushed that one over the time edge for us so let's wrap it up there with a nice pause.

Robb Wolf: Big deal.

Greg Everett: Yes.

Robb Wolf: Cool! So let's see here. I'm trying to think of anything that's going on, but Greg's got some sort of nefarious stuff that we'll learn about at some later date, and I'm moving to Reno and hopefully everybody is doing good.

Greg Everett: Yeah.

Robb Wolf: Cool!

Greg Everett: Sweet, dude.

Robb Wolf: All right, man. Thanks, G. We'll talk to you soon.

Greg Everett: All right. See you.

Robb Wolf: Later, dude.