

Paleo Solution - 162

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Robb Wolf: Hey, folks! Robb Wolf here. Greg Everett in the house. This is episode 162 The Paleo Solution Podcast. Greg, what's going on?

Greg Everett: Not much. Still trying to recover from last weekend—American Open—and I think it's gonna take me a few more weeks.

[Laughter]

Robb Wolf: So that's why there's an off season in competitive athletics. You are not actually in competition shape every day, all the time.

Greg Everett: Well, yeah, except that weightlifting pretty much doesn't have an off season but, yeah, in theory that is the idea. It's more to let me have a moment of not being totally stressed to the gills.

Robb Wolf: But can't you be in competition shape all the time?

Greg Everett: Well, yes, if your competition is unknown and unknowable.

[Laughter]

Robb Wolf: I guess so. Exactly my point. Tell everybody how things went.

Greg Everett: It went really well, actually. Our women's team came home with a 2nd place finish and we only missed 1st place by 3 points which we could have made up had me and 2 of the other coaches that were working with me not fed up a call on a final clean and jerk for one of our lifters. We went 1 kilo under what we should have done. And it happens. It's a little chaotic back there. The math becomes a little clouded so what are you gonna do other than come back and train better and then beat people on with better weightlifting instead of better math.

[Laughter]

Robb Wolf: You just need like a 10 kilo margin all the time and then you can use significant figures on the whole thing or like a ten to the third type of stuff and not need to worry about it.

Greg Everett: That or I need to get one of those calculator watches.

Robb Wolf: Ooh, there you go.

Greg Everett: Although with my eyesight I wouldn't be able to read it anyway, so we'll do the 10 kilo margin instead. That sounds better.

Robb Wolf: I like it. Anything else new? How is Bob Takano's book doing?

Greg Everett: Bob Takano's book is doing really well. People seem to really like it which they should because it's awesome. So you can pick that up. Weightlifting Programming: A Winning Coach's Guide on Amazon. You can get it directly from us and we'll have it in a few other places here pretty soon, so-

Robb Wolf: Sweet.

Greg Everett: Indeed. What's happening out there in Reno?

Robb Wolf: Everything's good. The sun's out. We actually had like 6 days in a row of rain and, yeah- Rain in Reno sucks just as bad as in does in Seattle shockingly. I was like, "What the hell? I didn't think we got 6 days of rain a year, so-

Greg Everett: Yeah.

Robb Wolf: Yeah, that kinda sucked. What else is going on? That's about it. I just got the absolute tar beat out of me at jujitsu yesterday so I'm like I feel like I need a neck brace, body transplants and stuff but other than that, everything's good.

Greg Everett: Sweet. Do we have some sponsors we wanna thank?

Robb Wolf: Yeah. Show sponsors: Evolve Foods. Normally I would tell you to go to Evolve Foods, put in wolfpack12 and you would get a discount but our affiliate company apparently somehow like the whole back end affiliate deal just kind of exploded somehow and so go buy some stuff if you can. I don't even know if it's working right now which is kinda typical of anything that I'm involved with.

And then our other show sponsors of course Frontdeskhq. Go to frontdeskhq.com. Check it out. If you own a Crossfit gym or similar service-based business, you can save time, money and all kinds of good stuff with frontdesk point of service mobile app. You can automate

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Whew! I can't believe they're still sponsoring us but thank you for doing that.

Greg Everett: Yeah.

[Laughter]

All right. Well, is there anything else we need to talk about before we get into myostatin inhibitors?

Robb Wolf: I feel like there's something looming out there but I just- maybe it's the impending doom of the holidays.

Greg Everett: It could be.

Robb Wolf: I don't know. I guess that's it. I guess that's it, yeah.

Greg Everett: Well, you feel free to interrupt me at any point if you think of something.

Robb Wolf: Okay.

Greg Everett: Something more important than whatever it is I'm talking about at the moment.

Robb Wolf: Perfect.

Greg Everett: Which shouldn't be hard. All right. Nick says, "Hey, your podcast is amazing and I hope you guys keep doing this for a very long time." Yeah, us too.

[Laughter]

"My question is more for you just to open up a discussion and talk about myostatin inhibitors and follistatin specifically. Is this the end of nutrition health clubs and everything? It seems too good to be true. That Carb Nite guy who was amazing, by the way, talks super briefly in his book about the possibility that creatine in high doses can be an inhibitor. If this is as good as it sounds, where do I buy it? And what potential problems do you see with it? Thank you."

[0:05:05]

Robb Wolf:

Oh, man. I've had in the back of my head this idea for kind of the anti-aging book. Greg and I were just talking about this and fortunately or unfortunately, a lot of the things that we're looking at like caloric restriction and intermittent fasting and stuff like that I think have some potential health benefits for the broken but not the promise of extending human life span to like 120 year type deal and in all these stuff.

I think that one of the best things that people could do for maintaining health as they age and improving the health span is actually maintaining a good bit of muscle mass and I was doing a lot of digging on the myostatin knockout critters; they have cattle, they mice, they have a number of different animals that either through genetic tinkering or through some natural evolutionary tweaks—these critters end up with myostatin knockout which in- I know it's in all mammals.

I'm not sure if it extends in the like amphibians and reptiles and stuff like that but there's a gene called the myostatin gene which actually limits muscles growth which is kind of a bugger but when you think about the evolutionary past and limited food sources and stuff like that, then you probably weren't best served walking around like The Hulk and so there was some sort of a dynamic tension there of having enough muscle mass to be functional but not so much that you would eat everything under the sun and still need more to maintain you.

So there's a dynamic deal there with the myostatin gene. This follistatin is really interesting; it's another signalling molecule which seems to inhibit the myostatin activity. And they've done some studies in macaques and some other critters and it seems to really downplay or inhibit the effects of myostatin which means that the critters end up gaining more muscle mass and it's really interesting when you look at myostatin knockout animals, they live as long or longer than normal population so there's definitely not a down side. They tend to be very lean, very, very insulin sensitive and I guess I'm really at a lost to figure what the downside of the thing would be other than like, the-

Greg Everett:

Finding genes that fit?

Robb Wolf:

Yeah. The whole population actually runs around looking like John Frago or something like some sort of myostatin knockout bulls. So from a health standpoint looking at it from where I'm at and with the current information and always with the caveat that I get to change my mind

later if more pertinent information bubbles up but I can't really find any downside to this stuff at all.

And it's interesting you could even make the argument that, let's say sustainability-wise we're not able to eat as much protein as we would like and we need to eat more carbs and then even some more junky carbs, one of the interesting features of the myostatin knockout or myostatin inhibited critters like I mentioned is really effective utilization of carbohydrates, really good insulin sensitivity so you can even maybe make kind of an argument that a way to forestall all of this health catastrophe that we're seeing because of insulin resistance due to bad food and inadequate activity and all that could be some sort of myostatin tinkering and then we all look like predator other than like the dreadlocks.

Greg Everett: Sweet. All right.

Robb Wolf: And you know what? Kiefer does in his Carb Back-loading book mentioned that creatine at levels of like 60 grams a day would have a myostatin effect. But I tried to wrap my head around how I would get that much creatine down my pie hole in a day and I haven't figured it out. I'll just wait for the gene therapy.

Greg Everett: It seems a bit impractical.

Robb Wolf: Indeed.

Greg Everett: And very expensive. All right. Cold shower timing for testosterone. Justin says, "Hey guys, in past podcast you've mentioned cold showers as a way to optimize hormone levels. Would I be correct in assuming we should avoid doing this very late in the day so we don't disturb our sleep or ability to get to sleep in the first place? Thanks for any help."

Robb Wolf: Yeah. It's so- I guess the simple thing is, yeah, it seems like a cold shower right before bed might be kinda tough to fall asleep although I've gotta sometimes just something kinda chilly and I hunkered the covers over and everything—it makes it kind of an easy way to fall asleep but I think about the best that we get out of the cold showers is maybe a little bit of a hormetic stress response but again just like exercise, just like a little bit of intermittent fasting or low carb, I think that the poison's in the dose and you can really go overboard on and actually create a stressor kind of event.

[0:10:00]

This is something that like in the Paleo land there was a significant figure we'll say who is advocating like a cold water immersion and that this was gonna cure everything from like bad hair cuts to metabolic derangement and when I was talking to Chris Kresser about this stuff, it was really concerning to me in that you would- if you had somebody who has pretty adrenal fatigued like they're pretty beat up, they're stressed out, I could see like cold water immersion killing them or really like worsening their situation.

So I think when you poke around the literature like contrast hydrotherapy, hot/cold immersions like there's some money stuff to that, it makes you feel better; I think it's great for recovery, I just don't think that there's magic hiding in there like it's another piece of the puzzle that you could use but you really need to consider the dose and your current situation and all that type of stuff.

Greg Everett: Well, we talked about this several podcasts ago and a lot the testosterone raising stuff is actually a product of cooling the gonads directly.

Robb Wolf: Right.

Greg Everett: So it's not like cooling your scalp or something like that is doing it. So if you're worried about sleeping and the only time you can do it is at night then maybe it's time to try the old ice pack to the junk trick. Just don't overdo it and freeze those things off.

Robb Wolf: Yeah. Getting frostbite on the wee regions would be not so much fun, I would venture a guess.

Greg Everett: That is certainly not going to help your testosterone levels beign a eunuch.

Robb Wolf: No, no.

Greg Everett: All right. Boxer says, "Elevation training mask: useful like a squat rack or as useful shake weights?"

[Laughter]

And there's a link to a trainingmask.com.

Robb Wolf: When you click on trainingmask.com you'd see this contraption that makes you look like the dude from the Dark Knight Rises.

Greg Everett: Bane?

Robb Wolf: Yeah. Gosh, So one thing on this, when you say elevation then it makes, I know when you market stuff, you've gotta market it somehow but when you start throwing that elevation thing out there, then I think people are thinking about like increasing red blood cell count, EPO production due to low oxygen levels and stuff like that and the mask is not gonna do that.

Greg Everett: Dude, it says it strengthens the diaphragm and sculpts the abdominals. Why don't you just get Emphysema or COPD instead?

Robb Wolf: Seriously, yeah, or just like workout by holding one thing over one nostril or something like that. I'm trying to do this whole jujitsu and one of the nasty effects of jujitsu is that you end up with somebody mashed on top of you and you can't breathe and it's totally miserable and so I could see from that standpoint like it's kind of a mental toughness gig. The fact that you do have to work harder with the respiratory muscles, I could see some benefit from that like I I could potentially see some benefit from that but it's-

I would just be really selective at how you drop this stuff in because we know even from altitude training itself there's a saying that they would like you to live high train low and the reason for that is that we want intensity of training when you're actually training but then you need to be exposed to a low oxygen environment to actually get erythropoietin to increase red blood cell count and you can do that getting a hyperbaric tent kinda gig that you sleep in at night. You need certain number of hours exposure per day to get the EPO production ramped up and all that jive.

But even within that context, they will drive people, they'll train in Big Bear and then they'll drive down to the L.A. basin to train because they do better at the higher oxygen concentrations when they're training so with all that in mind like I could see using this on some intervals or maybe circuit weight training or something like that and you drop it in occasionally and I could definitely see some sort of training effect on the respiratory muscles but I don't think again that it's gonna be like a cure for cancer or bad hair cuts or anything like that. I would put it above the shake weight but definitely quite ways away from the squat rack.

It would be more like the cambered curl bar is where I'd put the elevation mask.

Greg Everett: Which is pretty awesome. That's not-

Robb Wolf: Which is pretty awesome. It's pretty cool but it's the thing that you tinker with the last 5 minutes of your training, not the very first thing you go to in your training.

[Laughter]

Greg Everett: Right. Caesar says, "Hi, Robb and Greg. Let's get the ass kissing out of the way."

[0:15:01]

Okay, let's. "I love podcast. Love the information. You both would make a great couple if you weren't straight."

[Laughter]

Robb Wolf: I would tend to agree.

Greg Everett: Oh, man! "Okay. I had been doing Paleo basically without knowing what Paleo was ever since I started working out 7 years ago. It just seems to make sense for me to take out dairy and processed foods along with a very low carb on training days, doing no carbs on off days. Then I heard you on the Joe Rogan experience and I began to do my homework. And now I know even more thanks to you.

My question is does having such a low-carb based diet increase the chances of depression? I feel great when I workout but when I'm not, I get anxiety like you couldn't believe basically because my social life isn't that great.

All my friends drink too much so I stay in and drinking seems to be the only thing they wanna do these days. I started supplementing vitamin D recently. I hope it helps. But I feel that I'm missing something. I'm 26, 168 lbs, 7% body fat, have been in this shape consistently for almost 3 years now. I get great compliments and I've gotten a few friends to changed their lives just by seeing my results which is flattering. But for some reason, I don't feel good. I'm losing the fire I used to have for it. Could it be that being at such low body fat numbers hurts your brain by any

chance? I get over 200 grams of protein a day with plenty of fat, mainly from eggs, meats and nuts.

I got into this to become a fitness model but some unfortunate events, financial issues have gotten in the way of things. I don't even like weekends anymore because I'm stuck at home. I feel like an elephant is lying on my back. Is there anything that I can do to fix this? And another thing, have you heard of the guy named Greg Plitt? He eats Paleo and has an army ranger, wrestler and boxing background. He'd be interesting on the podcast. Smiley face."

Robb Wolf:

We have not heard of Greg but he sounds like a cool dude so maybe we'll do some Googling and then try to track the guy down. The low carb thing, we gotta get this right, folks. Low carb is phenomenal if you're sedentary. It's great if you have some metabolic issues and you don't process carbohydrates well but once you get down to a lean body fat level and you're training with any type of intensity, you're gonna get some problems popping up if you maintain low carb too long.

And maybe cyclic low carb would work where you do a much larger carb refeed every couple of days but even within that I would keep significant amounts of like intermediate carbohydrate density veggies like carrots, onions, parsnips—those sort of things and even in that like if we're really just looking at like kind of aesthetics, body composition and not wanting to do a Kurt Cobain kinda gig, it might be smart just to have some carbs in there every day like if you train hard and-

Hard training is gonna be kind of a cortisol stimulus no matter what we do. And then if we have inadequate carbohydrate, if you're reading a super ketogenic diet, then you will blunt the cortisol effect some relative to just standard starvation kind of gig but compared to actually having good amount of carbs based on your activity level, it's a no-win deal low carb and hard training relative to higher carb and hard training.

And when you get out to the outer edges of human performance and this isn't necessarily the stuff that I like or advocate but when you look at people doing like Tour de France, UFC Training and stuff like that like those people need peri workout carbohydrate stuff like where they're sipping on a little bit a carbohydrate branch chain amino acid gig when they're in training blocks that last more than 45 minutes and it's anaerobic in nature and high volume and very demanding.

The literature is pretty clear on that stuff and so just stay lean we need more carbs in there and then you just need to keep your calorie content

such that you're not getting fat and that takes a little bit of tinkering and diddling and whatnot but it's really important that people understand that this low-carb intervention is phenomenal for metabolically broken people. It can be great for dealing with like hyper palatability issues where people just literally don't know the difference between their mouth and a vacuum cleaner like it can clean up a lot of that stuff.

But when we start talking about folks like Caesar here you gotta fix this like you gotta get way more carbs in there, 168 lbs- I would start at least a gram of carbs per pound of body weight and maybe even double that and play with that stuff and I think you're gonna feel a lot better. You could certainly stick the bulk of the carbs in the post workout period. That stuff is fine. I think we have some good nutrient partitioning things to consider with that stuff but definitely do some tinkering with your food and get your carbs up.

Greg Everett:

All right.

[0:20:00]

Okay. Let's see if I can do this without totally butchering this word. Josh says, "I am so sceptical of things but NAET which is Nambudripad's Allergy Elimination Technique seems to be somewhat legit. I first saw something about it from Anthony Colpo saying he eliminated his dairy and egg allergy sensitivities. He is usually not the voodoo medicine kind of person so I looked into it a little. Using the NAET protocols, people are undergoing pretty big changes in their health from what I've heard. It seems especially helpful in the case of autism. I believe there's been one study on autism using NAET and it was pretty promising.

I just really want be able to eat ghee, butter and whey protein without all the inflammatory issues that come later. Heavy cream and raw milk would just be icing on the cake. I thought Robb could talk to some of his colleagues to see if they have heard anything or if you already knew some stuff about it. Thanks."

Robb Wolf:

I've heard of this stuff before and it looks really interesting. They have a really huge list of kinda testimonials. They've done kinda one in-house study on this stuff kinda largely retrospective deal which again is interesting but you couldn't hang your hat a ton on this stuff. It looks really interesting the one-

When I look at the website, the one kind of concerning thing about the whole deal is I think that they use, what is it, functional kinesiology like

some muscle testing type of stuff which that- the muscle testing just kinda weird me out so I really would be interested in knowing what their other diagnostic criteria are and it's kinda hard to figure out exactly what the modality is like in conventional aliphatic allergy treatments they do a desensation deal where they give your body exposure to small amounts of a dilute say like an egg exposure, dairy exposure and then the immune system kinda gets used to that stuff and doesn't overreact.

So I'd be interested in finding out what the actual protocol is, how do they diagnose and screen for this. If they're just diagnosing and screening with the muscle testing, that's a little wacky for me but at the end of the day if the stuff works that's really what matters and it could a situation where their diagnostic testing may not be all that credible or efficacious but yet the actual treatment protocol is which would be interesting too.

But it's hard to get any specifics off of what they're doing. I shot this to a couple of the functional medicine docs that I know. They were not really familiar with it so it's tough to say and it's one of those things. I think the site references about 12000 practitioners worldwide doing this technique so if you've got significant problems with some sort of a dairy allergy or egg allergy or something like that, it seems like a reasonable thing to get in and at least give it a shot.

Greg Everett:

Fair enough. All right. Half-assing a Paleo diet. I guess this would be the 50% Paleo approach. Rebecca says, "Hi, Robb and Greg. My question is twofold which is 200%."

[Laughter]

"I've been following a Paleo diet since March and the results have been so convincing that I had been recommending it to my patients. I'm an acupuncturist. While my husband is totally respectful of my decision to eat this way, he isn't exactly on board himself. I tried getting him to read the Paleo Solution and he agreed to try it and do it for 30 days with me when I was first starting out.

He got about a quarter of the way through your book and didn't pick it up again and during that 30-day challenge, he totally half-assed the that using the facts that travels to New York for work every week as the excuse as to why he couldn't stick to it. When he's home he eats the way I eat and eats what I cook happily. When he's on his own or if we go out to eat, he doesn't restrict anything from his diet. Bread every day, other greens in various forms and beer, lot's and lot's of beer. If you analyze his

blood, you will find equal parts of red blood cells, white blood cells, and Bud Light.” At least he’s sticking with a quality beer.

Robb Wolf: Seriously, yeah.

Greg Everett: “I do worry about his health. He’s gained a significant amount of weight in the past couple of years mostly in his belly and hasn’t gone to the gym in 2 years. He still refuses to cancel his gym membership, though.”

Robb Wolf: That is always a hope.

[Laughter]

Greg Everett: “I’m not fighting with him about it. I tried that already. At this point I’ve decided that the best I can do is just live by example and hope he gets motivated to make changes. Maybe drop some suggestions here and there. I know that heart disease is a symptom of systematic inflammation and not alone due to a diet high in fat cholesterol. It’s my understanding that the inflammation in the arterial walls creates a rough surface for the passing low cholesterol to stick causing atherosclerosis.

My question is if it’s in the way I eat a diet relatively rich in saturated fats and cholesterol or also eating high inflammatory diet. Is it really bad for him? In my head it makes sense that half-assing a Paleo diet could be a fast track to heart disease and other health problems or is eating Paleo some of the time better than none of the time?

[0:25:03]

My second question is if he does commit to eating Paleo but continues to consume alcohol at the same rate, will the drinking make the benefits of the Paleo diet negligible? He drinks on average about 5 diet Buds a night with minimal effort.” This reminds me someone asked me if want a diet water the other day in the restaurant. I almost shot myself.

[Laughter]

On the weekends he can go through double that easily each night plus have a couple of scotches and not show any signs of being drunk. He admits that he probably has an alcohol problem. You think?” And that was her “You think,” not mine. Just to clear. “But it doesn’t negatively affect his relationships or his work and he enjoys it so his motivation to change that behaviour is low. I think getting him to commit to a Paleo

diet would be a huge win even if he is still drinking the same amount. Thanks guys. Love the podcast.”

Robb Wolf: Whew! Holy smokes, man.

[Laughter]

Wow. We’ve kinda had this question before about like is occasional good eating better than not occasional good eating and it’s kind of like could you get kicked in the balls every day or just every other day? And when we did some work with I continued to do this stuff for Naval Special Warfare and go to talk to the operators with that stuff and one of the refrains that comes out of the kinda dietetics community associated with the team guys is that they can’t always eat this way so they shouldn’t get used to it because when they deploy, they’re gonna have limited access to good food and so they should just eat shitty food all the time which I think is fucking ridiculous it’s like if you could even when people are on shift work like should you sleep the best that you can under a tough situation? Yes.

Should you eat generally nutritious foods more often than not? Yes. If you are a drunk lush would you do better eating some decent food mixed in your drunk lushness or should it just be like Little Debbie’s Snack Cakes and Big Gulps and so- yeah, it’s hard for me to really wrap my head around an idea that all bread, all pasta, all more inflammatory food is gonna be better in this situation.

I don’t know. I could be wrong but it just seems a little bit wacky as far as that goes and then as to the can you undo significant amounts of the health benefits from drinking- yeah, unfortunately I think that’s probably the case but there again, if you are generally eating well, I think that that’s probably better even amidst a consistent bender relative to not. Greg your thoughts?

Greg Everett: I would tend to agree with you. Yeah, it’s a problem and if he doesn’t wanna do it full board then it’s not gonna work very well but I think that it does seem that doing it even half-ass is better than no-ass and if he wants to drink all the time, maybe he can just find an alternative that isn’t actually beer.

Robb Wolf: NorCal Margaritas could be a good option.

Greg Everett: Yeah. I mean there’s definitely ways to have some drinks and not do quite as much damage as beer but that of course is going to be a personal

preference thing for him. And if he likes drinking beer then he's probably not gonna like the alternative.

Robb Wolf: Probably not.

Greg Everett: Okay. Slow death by coconut oil. That's an interesting segue there, Squatchy. Mike says, "There's a big part of me that doesn't even want to ask this question because I fear the answer. But in the interest of the relentless pursuit of the truth, I will put out there. I recently purchased a deep fryer and filled it with a couple of jugs of that Nutiva Virgin Coconut Oil they sell at Costco. As of now, my family of 8 eats sweet potato fries several times a week just oil and some salt. Very incredible.

My question: By deep frying sweet potatoes in coconut oil, am I turning two things that are normally quite good for you into junk food. I'm going to dismiss concerns about hyper palatability because they are, if anything, super hyper palatable.

I realize I can over eat them. That said, I typically don't and after you eat them you don't feel sick like in the case of McDonald's fries. You feel great, not weighed down, satiated and ready to roll. I never cook anything but sweet potatoes and plantains in the oil so it stays very fresh. However I do cook the oil at 350 degrees so I'm worried about oxidative damage or any other bad chemical type of stuff that I may be doing. Basically it just seems like they taste too good to be good for me. It seems like a quasi-paleo "free lunch" and there's no such thing as a free lunch, right?"

[0:30:01]

Robb Wolf: Well, well [Laughter] When you think about the deep-frying deal and you've got it a really inner oil like coconut oil, it's almost exclusively a saturated fat so it tends not to oxidize. That's one of the big concerns of most deep-fried stuff.

They have this vegetable oil which is already typically partially hydrogenated, and then the monounsaturated and polyunsaturated fats that are still in it get exposed to oxygen in high temperatures and that stuff is definitely not the greatest for you. When you actually look at what happens in deep-frying when the oil is hot, it's really almost like you get a little bit of a sear on the outside and then the food is largely steamed from the inside, and so at the end of the day, I don't see this being a terrible way to cook some sweet potatoes a couple of times a week, and

you're already on to the notion that it makes it super hyperpalatable which I like that term. I'm going to steal that.

So long as you keep that in mind, I don't think—I just can't get super spun up about this. Like it's, 'Yeah could you create some advanced glycation end products and a little bit of nitrosamines. Yeah, but as Mat Lalonde has impressed upon me, like our gut is actually pretty good at screening that stuff out because we've been eating cooked food for a long time. So we've got some adaptations for dealing with some of that.

And then I think at some point like this is... when you go down this kind of paleo-esque road, it is nice to have some treats and one of the things that we don't really get is like a snappy kind of crunchy mouth feel kind of gig and sweet potato fries whether you bake them or fry them, that kind of satisfies that. It tastes good. You get a little bit of salt on there obviously they have the sweet everything so they taste good. There's a mouth feel.

From a purely health stand point, would it be better to like bake them? Yeah, but it is this, again I love that spectrum. Good like a squat racker [Laughter] worthless like a shake weight like I would actually stick this up closer to more like a inclined bench-type rack. It's more for aesthetics and maybe not the absolute go-to thing you want to do, but I really don't see that big of a deal with it.

Greg Everett: Sweet.

Robb Wolf: So now I need to get deep-fryers and stick them in my Amazon store and start selling them after this.

Greg Everett: Okay. Rare meat and pregnancy myth. Moses. First off, you guys kick so much freaking ass. Thank you for not letting up on that.

My girlfriend and I just found out she's pregnant. Her and I both follow a paleo regimen. [Laughter] Regiment. Sorry. [Laughter] but she keeps telling me that she needs to avoid eating rare meat. We both prefer medium rare based on what other doctors have told her in the past. She was married once before, and had a miscarriage two or three months into it.

I've looked all over Robb's and Chris Kresser's websites, but can't find anything pertaining to, hopefully debunking this protocol. I'll also be getting Kresser's Healthy Baby Code soon to cover more of my bases that I may have missed.

In the mean time, may I please trouble you all for help in proving or disproving this. My gut says she'll be fine, but I've sent her so many of your other podcasts or other blog posts that I have seen—God, I'm dying right now—that [Laughter] I have seen to enlighten her and other friends who've inquired of non-mainstream health benefits from what I have read, heard and/or limited myself from you guys the Lalonde, Cordain, Taubes, Masterjohn, etcetera.

World's longest sentence.

Robb Wolf: That last piece just sounded like random words. [Laughter] It's like a serial killer just putting random words into a document and then you read it back.

So the big concern for gals who are pregnant, I mean just in general with any type of raw food is the potential for bacterial contamination. And typically, let's say you're eating grass-fed meat that was butchered by a person that you know and you know it hasn't gone through the large processing scenario. The likelihood of just having some sort of bacterial contamination in a small-scale operation like that is much, much less. It's not a hundred per cent, but it's less.

I just read an article the other day, and I wasn't aware of this, but big large chain restaurants like Applebee's and Outback Steakhouse and stuff like that, apparently, the meat that they're receiving...

[0:35:04]

Robb Wolf: Okay, so if a piece of meat unless it's ground beef is actually contaminated, the contamination is going to be on the outside only.

And so if you have a steak, you cooked the steak and it's even rare, to say nothing with medium rare, you killed all the bacterial contamination on the outside. Ground beef is different because you've taken a solid piece and then massively increased the surface area. The potential for bacteria to still be in that tiny little nugget in the center is still real even we just have our own home grown grass-fed meat type of stuff, so just keep that stuff in mind.

So in these large chain restaurants, apparently what's happening is it has a means of tenderizing these things. The steak is actually passed through this processor that is like a bed of needles essentially and the needles are driven through the meat multiple times which is helping to break up the collagen, it's increasing the surface area, improves the mouth feel and it

also takes any type of bacterial contamination from the outside of the steak and infuse it through the entire steak, and not only do you have that problem with the singular steak, but they're pumping multiple steaks through the process.

So if one steak is contaminated then everything that comes subsequent to that is contaminated so I think their article is talking about a eighty year old woman that ate a steak at Applebee's or something like that and ended up needing a colostomy bag because the bacterial infection she got basically destroyed her colon.

Obviously this doesn't happen all the time, but this is the potential pertaining out there and if a woman is pregnant, and she gets food poisoning, the toxins from the bacteria in addition to just the OPS, there's all these other nasty toxins which actually cause the gut irritation and can also get into circulation and that can kill or damage the fetus.

So I would like to get in and say, no, it's totally safe. You don't need to worry about it, but I mean there is a risk associated with this stuff and if you have your own controlled source of meat and you're cooking a steak then I think that you could—it's reasonable to make the assumption that unless you've used the same tenderizing process that I've described earlier, the interior of the steak is essentially going to be aseptic. It's not going to be infected or anything, but the outside potentially could be so you cook it and you do a medium rare and it should be cool.

Hamburgers should probably be cooked well done even if it's grass-fed. If the individual's pregnant or if you're starting to feed your kids like we're starting to give Zoe a little bit of bacon, a little bit of ground beef and we cook it thoroughly even though it's grass-fed from a source that we trust. I'm just not going to take a chance on getting her really sick or killing her from a piece of undercooked beef.

So, Greg, does that make sense?

Greg Everett: It makes perfect sense.

Robb Wolf: I mean, it is a concern and the way that our food processing keeps getting bigger and bigger. It's great in some ways because we get economies some scale and it's cheaper and stuff like that, but some of the stuff like the attempt at tenderizing the meat by pushing a bit of needles basically through the meat has some really untoward effects with regards to potential contamination.

Greg Everett: What if you just soak all those needles in Jack Daniels and then you get both the flavor and the sterilization.

Robb Wolf: And then you have drunken steak. I love it.

Greg Everett: Yeah. See? I don't know why these companies don't just hire me to figure out all their damn problems.

Robb Wolf: Dude, we need a better—we need an Arie Gold PR specialist.

Greg Everett: There we go. All right, last one and it's a doozy.

Robb Wolf: You got to give the line, the intro deal

Greg Everett: Some replying is vagina and gut flora, kittens and puppies, oh my. Oh, fudge. [Laughter] Nicky says hi. I was born via C-section and ate a standard American diet all my life. [Laughter] Aw, man. Sorry. I just thought of the movie, Schizopolis and the opening line is 'First, I am born. Then the trouble begins.' [Laughter]

All right. I was always skinny and could eat anything I wanted. That combined with the fact that I love veggies made me think that I was walking ball of health, and it came time for me to pass my veggie-loving genes to the next generation. I had two babies, both natural vaginal births. This doesn't even have a verb in it.

Okay. And my whole family are now strict Paleo except for chocolate, potato chips, and coconut ice cream on occasion and have been for a glorious year now. After a hellish stint in vegan land, some of it a little pregnant no less, please don't tar and feather me. We are all gluten-tolerant in a bad way. Shocker.

[0:40:07]

Greg Everett: My sons are now three and five years old. They aren't into veggies yet, but love them some bacon. In Paleo-land aka heaven, just kidding for all you atheists out there, it's just a figure of speech, gut flora is a big deal as it should be.

I'm wondering since I was born via C-section and wasn't exposed to my mom's bacteria-filled vagina [Laughter]. That's how it's spelled. I mean that in a good way, and now, am I and now my children deficient in the proper gut flora? Can this be corrected with some probiotics and

sauerkraut? Because honestly, I don't think I can get my hubby also born via C-section, to submit to a fecal transplant as fun as that sounds.

Plus, I think I would get CPS called on me if my five year old mentioned that mommy had somebody put poop up his butt. [Laughter] As promised, kitty and puppy and I think this must be a picture here.

[Cross-talk]

Robb Wolf: It's very cute. Is there even a question in this? [Laughter]

Greg Everett: I don't know. I think the question was can she make up for the lack of gut flora that she did not receive through being born vaginally by eating probiotics and sauerkraut. That was the only question.

[Cross-talk]

Robb Wolf: Kresser was mentioning that dietary probiotics like sauerkraut and kimchi and even yogurt and stuff like that generally is actually not repopulating the gut. It's causing some immune stimulation and stuff like that which was totally surprising to me and the next time we get them on the podcast we'll pump him for some info on that.

The fecal transplant thing is really interesting, like it seems to fix a lot of problems for some very, very sick, broken people. This stuff is still the wild west though like we just don't know much of anything about this stuff.

I think on a previous podcast I mentioned that there was a guy that had his gut into a biome culture daily for a year and he saw crazy changes in the gut bacteria subsequent to getting food poisoning, subsequent to needing to do a round of antibiotics. The type of bacteria just completely changed. It never came back the same way. It was as if he went to the Amazon rainforest and just like strafe-bombed it and then planted a pine forest there or something like that.

It completely changed, but we don't yet to know what means for overall health. We know that some sick overweight metabolically broken people have different gut bacteria than lean, metabolically healthy people do. Is that a cause? Is that effect? We don't know.

There've been some situations they've done some animal models where they take the gut bacteria of the sick animal and put it in a healthy animal and the healthy animal gets sick. They've seen some reversal on that stuff

so it definitely seems like we've got some implications for the gut bacteria in being really, really important for overall health.

I think that probably a start on this stuff and it doesn't cost a ton of money, and we actually have some projects like the Paleo, what is it—it's the human gut project which I did a blog post on those folks a while back and they're looking for volunteers to send them some poop samples and get the gut bacteria sequence and figure out what type of gut bacteria different people have and then do some correlative stuff with the diet.

Shy of actually having something like ulcerative colitis or some over gut problems, I guess at this point, it would be hard to really get in and recommend a fecal transplant just for like a health boost. Who knows maybe five or ten years from now that's the thing? Like we end up isolating some super healthy strain of people and they end up selling their shit for all you know fecal transplants or something, but it's—we do know that vaginal birth ends up creating a very different intestinal environment than a C-section birth, so there are considerations with all that.

I definitely don't know enough yet. I don't think anybody knows enough yet on this stuff to really make much of a recommendation other than when we see over pathology that it's maybe time to get in and start trying to do something to change that situation, but for somebody whose motoring along, doesn't really seem to have signs and symptoms of over pathology I think it's as yet a bit premature to recommend going and grabbing a pile of poop, some fleet enemas and have a party based off that. So that's all I got on that.

[0:45:08]

Robb Wolf:

It is really interesting stuff though and Jimmy Moore interviewed me. I think it was his last podcast of 2010, I want to say. Could have been 2009, but I think 2010 and he asked me what do I think that the biggest most important area of research will be in the next five years, ten years. And I was waffling for a little bit, then I was like, 'Oh. The gut endobiome and the interaction of the gut bacteria with the host and the implications for health, wellness, pathology etcetera.'

So I think that the gut's going to be really, really important over the next couple of years. Couple that with the myostatin and knockout gene therapy and we'll all live to be a thousand years old.

Greg Everett:

There you go. And look amazing.

Robb Wolf: And look amazing, and have amazing poos.

Greg Everett: What else is there in life?

Robb Wolf: Truly. Truly. So is that it? Do we have anything else?

Greg Everett: That's the last one. Okay.

Robb Wolf: Okay. That works for me. You need to update folks on anything they need to keep aware of for the between now and the next, next wingding?

Greg Everett: I don't think so. Go check out Bob Takano's book, *Weightlifting Program: A Winning Coach's Guide*, and if you do have it, and you love it please post a review on Amazon. That's always very much appreciated.

Robb Wolf: Cool. Yeah. That's it.

Greg Everett: Right on, man.

Robb Wolf: Well, same bat time, same bat channel, next time I guess.

Greg Everett: You bet.

Robb Wolf: All right, dude. Take care.

Greg Everett: Okay. See you.

Robb Wolf: Bye.

[0:46:42] End of Audio