

## Paleo Solution – Episode 137

[00:00:00]

Robb Wolf: Hey folks, Robb Wolf here. Greg Everett. Dude it's episode 137 is it not?

Greg Everett: It is. In pounds that's 300.

Robb Wolf: Wow. Cool.

Greg Everett: For those of you who don't -

[Cross Talk]

Robb Wolf: Do the Metric English conversion. Nice. So, in my hot little hand I've got a copy of Olympic Weightlifting for Sports by this infamous character, one element of Zorffit, Greg Everett. **[Laughter]** **[Cheering]**

Greg Everett: I'm running anchor in Zorg, I like it.

Robb Wolf: You're big.

Greg Everett: Right?

Robb Wolf: So that's good. Yeah. So I'm gonna check that out and do a review here pretty soon. What I've looked at so far is impressive. Damn impressive.

Greg Everett: It does have a cool cover.

Robb Wolf: Indeed.**[Laughter]** So what else is new? What's crackin'? What do folks need to know about?

Greg Everett: I feel like there's something more interesting to tell everybody this time than there has been the last couple and now I'm drawing a blank. So, pretty much the book. The book is out. It's available on Amazon. It's available on our site. It'll be available some more places here shortly.

Robb Wolf: Cool.

Greg Everett: And check it out if you have it and you love it please post a review, post a blog anything like that all that stuff really helps us a lot. Helps us keep putting out free content on the website. So, do it for yourselves.

Robb Wolf: Indeed. And it's something that -

Greg Everett: Do it for the people.

Robb Wolf: Do it for the folks, the little people. I don't know if people/folks understand this but if you can help boost a book like Olympic Weightlifting for Sports into say like the top 100 in its genre then Amazon starts giving some kind of preferential placement. It's kind of the Slipstream Effect.

So if you can goose a book into a little bit better sales it tends to stay there. So definitely, buy a copy for everybody in your family. They're a convenient size for personal self-defence, just kind of roll it up -

Greg Everett: Take two, they're small.

Robb Wolf: Yeah. Take two, they're small. So, what else is going on? We had Sean and Chrissy of Growing up Paleo Fame here for about four days with their new born Riley Ray. And so we had a three year old, a six day old and like a five and a half week old and then they left.

They were gone maybe like three hours and then Nikki's friend from High School who was wrapping up medical school up in Portland. She was here. She and her husband and one year old were here for four days and so I'm -

Greg Everett: So, you're well slept and excited to do this podcast. Is what you're saying?

Robb Wolf: I have no value left basically. Any like opiate based pharmaceutical that I had is all gone. I tried to OD from it so yeah.

Greg Everett: Nice.

Robb Wolf: I'm all fired up for the podcast. What else is going on? I'm trying to think. Is this it? This is everything I guess. I'm trying to think if there's anything else new that we need to tell folks about.

Greg Everett: Yeah. I don't think so. I feel like we've gotten more and more boring every single episode.

Robb Wolf: Well, speaking of boring, our guests are boring. They are the anti-thesis of boring. We're gonna have, I believe Dr. Joe Brasco on the podcast next week. He's the gastroenterologist badass talking about Crohn's, IBS, all that stuff.

Dr. Joe has a forum on the robbwolf.com forums. Dr. GI Joe's forums so you gotta check that out. I know when I did a blog post about a week/week and a half ago.

Greg Everett: Ha! I just got that, G-I Joe. **[Laughter]** Oh man, not only is he a doctor but he is witty.

Robb Wolf: He's a doctor of humour in fact. So we're gonna have Dr. Brasco on. If you have questions about GI related issues shoot those to us. We're gonna have Mark Bell, tyrannosaurus sized power lifter. We'll have him and John Welbourne. We're gonna have Nate Miyaki on who's a nutrition expert and a frequent T Nation contributor.

Who else? Oh, somebody introduced me to Dr. Allison Siebecker who is another kind of G.I. specialist. She specializes in small intestinal bacterial overgrowth, FODMAPs, and all that fun stuff. So we're gonna have her on the show here pretty soon as well.

So I'll do another post with her bio so that folks can read up on that and ask her some questions but trying to get some other folks on here. So that we have some different perspectives not just Greg and I rambling on and on inanely like I'm doing right now.

**[00:05:00]**

Greg Everett: But that's what people have come to know and love.

Robb Wolf: That's odd. It's odd.

Greg Everett: Well some of them. **[Laughter]** Some of them are still hung up on the sound quality.

Robb Wolf: Indeed.

Greg Everett: Apparently. All right. Well..

Robb Wolf: Let's jump in and do it.

Greg Everett: What do we have here? Let's get right into this podcast of characters. Okay, Loren Cordain and Protein Toxicity. Dustin says hi Robb and Greg, in Loren Cordain's new book; he states that "protein is toxic above 35 per cent of a person's daily calories." Bottom line of page 18.

In previous podcasts you've said that high protein intake is a generally a non-issue so long as you don't already have kidney problems, but

this is the first time I've heard anything regarding a specific macronutrient ratio being dangerous.

I currently get roughly 40-45% of my calories from protein, which seems to be working quite well for me. I'm staying lean, I'm getting stronger in the gym, and I feel great. Should I be concerned? You know what the problem is? 35% is a whopping 5% above the zone prescription. **[Laughter]** Hence, the toxicity.

Robb Wolf: Yeah.

Greg Everett: You're out of the zone.

Robb Wolf: Well, I don't know if people know this and this is a true thing - every Sunday that Matt Lalonde has access to this barbeque joint that's down the street from his house he goes and eats basically about three pounds of ribs and basically flips the burn towards the Barry Sears universe because Barry is all about like you can't digest more than 30 grams of protein in a sitting and this is a true weekend cracking extravaganza which I've been able to partake of a couple of times.

Greg Everett: Nice. I like it.

Robb Wolf: You know what? This thing if you do a little looking around on protein toxicity or rabbit starvation specifically then that's where you see the problem with protein toxicity pop up and basically you have an issue for most people if they start -

Humans can adapt up towards 40% of protein intake but there's some liver adaptations that may be on entirely great but they can do it. You see some of the stuff in the Inuit and some other folks that are in some pretty harsh environments. But at some point the human physiology needs a co-factor besides protein in order to process the protein by-products, the ammonia by-products and that's either carbohydrate or fat.

And once you go above 35%, 40% for an extended period of time then we're gonna have a problem. The reason why I say that high protein intake is generally a non-issue is because it's very very hard for people to consume a huge amount of protein as a relative fraction of their calories.

Protein is very very satiating. This is especially an issue if you are eating lean protein sources like chicken breasts or something like that. That's part of this satiety feedback. The body is pretty well attuned that really high protein intake is gonna be problematic.

And so unless that protein arrives with some co-factors like it's way easier to eat a lot of total calories and total protein in the form of like pork spare ribs than it is turkey breast because the neuro-regulation of appetite - your body knows that you are consuming adequate co-factors in the form of fat so that you can process all that protein and you're not gonna have problems.

I'd be willing to bet that if you really tracked your food, if you weight and measured your food, really looked at it that you're probably not quite as high on the protein intake as what you suspect. Maybe not, like you might legitimately be in the 40-45%.

But I'd be willing to bet that if you weighed and measured your food you're probably more in like the 28-35 range. I would be shocked if you are legitimately in the 44% to 45% range. The question is should you be concerned with it?

If you really are at that level, if you are still leaning out then at some point your body fat level is gonna be low enough so that you don't really have quite enough body fat that's acting as a co-factor in the processing of the protein and you'll start feeling lethargic and sluggish.

Maybe having some headaches and that's where you'll need to modify the other - either drop the protein a little or elevate the total calories adding some carbs or fat in the mix. But, yeah, does that make sense?

Greg Everett: You know why it's really impossible to over eat chicken and turkey? Cause you can't chew it anymore.

Robb Wolf: Yeah.

Greg Everett: It's the worst. That's why you gotta wrap it all in bacon

Robb Wolf: Bacon makes everything better.

**[00:10:00]**

I mean, bacon can make shoes better.

Gregg Everett: I'll do it.

Robb Wolf: Bacon-wrapped shoes?

Greg Everett: Don't dare me.

Robb Wolf: We should do it for a charity.

Greg Everett: Well, it depends on whose shoes they were. I guess I should make that clear. Okay, breakfast and neuro-transmitters; sounds delicious.

Robb Wolf: Indeed.

Greg Everett: Whomp says, 'Robb, I was hoping you could talk a little bit about the pros and cons of breakfast? [Laughter] I recently came across a couple of articles touting the benefits of breakfast for brain health. I think I remember you mentioning in a previous podcast that a friend of yours, I forget who, refuses to skip breakfast because of its importance for neuro-transmitter regulation.

I tend to wake up around 9 am and I'm usually not hungry. With the help of some coffee, I tend to put off eating 'til about 3 pm after a workout. I know Martin Berkhan has plenty of success in terms of body composition with his treadmill routine but I was wondering if there might be some overlooked benefits of breakfast in terms of mental health.

I ask mainly because I'm a teacher/graduate student and I spend most of my days studying. I tend to get a little wound up by the afternoon and find it hard to focus. I'm wondering if there's reason to think that a protein-rich breakfast might help me focus longer as supposed to just making me feel groggy, which sometimes breakfast does. Obviously, I won't know until I try but I was hoping you could talk a little about the science behind eating when one first wakes up. Thank you.'

Robb Wolf: Yeah, this is another one of these situations where asking who and what, like who are you, what are you trying to do. I think in general, if people are not under a ton of stress, then doing a little bit of intermittent fasting is great.

When I have worked with clients that have some weight loss issues, they don't have good neuro-regulation of appetite. It's kind of funny, a lot of these folks, they will be over weight; they tend to crack out on bad food.

But they'll wake up, they're not particularly hungry in the AM; and then they'll kind of motor along until they hit about noon, and then they're just ravenous, and there is not anything that they won't eat. And typically they're going for sugary, carb-y type of stuff.

I've heard about it from a lot of people but Poliquin is the dude that was really recommending for fat loss folks that as soon as they get up, they get a good 30-50 gram whack of protein and that will help kind of normalize dopamine levels.

When you look at it from just kind of the endocrine function, you're getting a little release of glucagon and insulin, which should regulate blood sugar levels and then on the neuro-transmitters side, it gets way more nebulous for me, like the general refrain is that the protein is gonna improve dopamine levels, and that's gonna make you more alert and all that sort of stuff.

I don't know how solid the science is on that, but I think the empirical findings when you can get people to eat that whack of protein and maybe have some coffee, they just seem to be more alert and do better, and in subsequent meals through the day tend to be better composition. They tend to have better control over impulsive eating and stuff like that.

For your situation, Matt Lalonde and I have talked a lot about this. I think that stuff like intermittent fasting is nice, from the perspective that you know I grew up in the 80s, 90s body builder deal where you had to eat 10 meals a day or you're gonna go into negative nitrogen balance and all of your hard won muscle was gonna be gone and it didn't really matter anyway because you were on anabolic steroids.

It was all just pissing and anyway, for me, probably the biggest liberation that I've had from tinkering with intermittent fasting which is the understanding that if I miss a meal, I can make it up later and it's just isn't gonna matter at the end of the day. And I'm kind of the sarcopenic kid so [laughter]

What are you gonna do? But, that's the biggest take away that I've had from that and then when Matt and I have talked about some of this stuff, if you are under a lot of stress, I don't know that it really makes sense to do things like intermittent fasting to consciously plan it into the rotation.

And if you're a grad student and you're really trying to optimize cognition and stuff like that, I'd get up and have a good hearty breakfast; I'd have a decent little whack of coffee. That's pretty much how I would roll with that.

We've just talked about this a lot on the podcast, but when we look at this kind of evolutionary template and the Paleo-template and stuff like that, usually we're talking about a situation where people went to bed when the sun went down and they got up when the sun came up

and I think it's safe to assume that the base level of chronic stress was very, very different than what we have now.

[00:15:04]

There tended to be more acute stressors and what not versus the chronic grinding stress that we have particularly in advanced education scenario. So, I will be disinclined to run with that. I would eat a good breakfast, see how you do and who knows, maybe you do feel better. You can always go back to doing things the other way.

We have some questions later on about cortisol and stuff like that but I'm just really nervous about irritating that cortisol access which is definitely gonna antagonize the partitioning and storage of short-term and long-term memory and what not. You do not want elevated cortisol levels when you're trying to learn stuff.

So with that in mind, I think eating consistently; maybe not even being super low-carbohydrate in that regard, but you can play with that and see how you do, definitely taking advantage of post workout carb feeding so that we're suppressing cortisol levels and what not.

I think that totally makes sense. But, I don't know that I would write this intermittent fasting phony if you are under the type of stress that you're describing.

Greg Everett: Seems like a bad idea for me.

Robb Wolf: Yeah! Plus Greg really just likes breakfast.

Greg Everett: Well, the other solution is to drop out of school. I mean, you could just do whatever you want with your nutrition.

Robb Wolf: That is true.

Greg Everett: All right. Speaking of school, this next one is gonna make me wish I had a chemistry background instead of English since it's a whole freakin' Latin.

Monoamine oxidase - Charlie says, 'Hi Robb, what a crazy, confusing world I've descended into by trying to sort out my health issues! On the other hand, I feel like shit [Laughter] way less often these days, so it's been well worth it. I've had really bad cystic acne for over a decade, as well as problems with depression and anxiety. Since going autoimmune Paleo I've had the best results yet, but still a long way to go.



My question is about amine metabolism. I suspect that I have low MAO activity. Evidence for this includes sensitivity to tyramine-containing foods and low urine levels of the organic acids that are produced by MAO – homovanillate, vanilmandelate, and hydroxyindoleacetate

Robb Wolf: Nice!

Greg Everett: Sorry, Greg. I actually suspect a deficiency in diamineoxidase for similar reasons.

My question: Is MAO activity a lever that I can try to move? Is it something that I am stuck with because of a genetic polymorphism, or is it an indicator of a functional problem that can be corrected?

Gut health has been my focus for the past eight months that I've been paleo, but following the MAO trail might lead me to focus on mitochondrial health, something I haven't heard much about in the paleo scene except recently from Dr. Terry Wahls.

Any thoughts? Thanks guys. You are fudging rock stars. Charlie.' Oh, Charlie.

Robb Wolf: Really good question and a shout out goes to the bearded wonder Squatchy who's doing a great job sifting through all the questions that we get 'coz he's strung together two really complimentary questions. We have this one and then the next question is--

Greg Everett: It's almost as if he reads them before he chooses them.

Robb Wolf: It is almost as if he reads them whereas like Greg and I would just haphazardly pull stuff out of a hat and then kinda run with it.

Greg Everett: Pretty much.

Robb Wolf: The next question relates to histamine and tolerance, so I'll cover a little bit of that one in this question. There is a potential that you may also look into low histamine-releasing foods or there are foods that contain histamine and or kinda stimulate histamine, fermented foods being big ones, and tomatoes.

If you do a little google-ing around, just look at 'histamine-rich food' then or histamine-elimination diets then that's some place to look. It modifies dopamine, it modifies cortisol, there's a lot of different stuff going on with that.

So, the big question here: Can you tweak and modify this stuff? Yes, I think you can. Better sleep, improving gut health, nicotine gum, coffee, all of that stuff tweaks these elements. You might consider a really low dose of MAO inhibitor although those things are just nasty; nasty side effects, not really good.

So I would definitely try tackling this stuff as non-pharmaceutical as you can. At least as far as you can run with that; and then related to everything that you're up to, looking into histamine reduction protocol. I would give that a whirl. And I'm trying to think of anything else that I would add to that but that's about it.

Greg Everett: That's what I was gonna say.

Robb Wolf: Yeah!

Greg Everett: So that sounds good. Well, I'm sure you'll think of the rest of it at this question.

Robb Wolf: Totally.

**[00:20:00]**

Greg Everett: Roberto said, 'Dear Robb, my name is Roberto, I am a great fan, read your book and started my paleo lifestyle the day after (literally) I bought it (about 6 months ago).

I have been practicing and competing in Jiu Jitsu in Italy for about 6 years now, I'm 29 years old and paleo lifestyle has strongly stabilized my energy level and improved my life. I have also lived in the US and in Australia, so I also have a direct experience with standard American diet, besides the Mediterranean diet.

Nevertheless paleo was not a solution to all my problems: bloating, random quick runs to the toilet, random anxious feelings, random hypotension, random itching which I had a very hard time tracing it to my food as I've been quite strict on the paleo side. Also my blood work after 2 months in paleo revealed a not ideal blood lipid profile:'

Let's see here, total cholesterol 251, triglyceride 62, HDL 54, LDL 185.

I have recently linked my weird problems to Histamine Intolerance, as I was diagnosed with this when I was a kid after having severe urticaria. As a kid I followed a low-histamine diet but without removing many problematic foods, read gluten. After about two years the problem seemed to be solved, but in the last years I have had

continuous problems with food so apparently it was never really solved for good.

My question is: do you think the high LDL cholesterol levels could be caused by consumption of high histamine foods in paleo: avocados, smoked salmon, nuts, etcetera which I have only now eliminated? And more importantly, do you think this problem could be solved with careful supplementation?

I started taking Vitamin C, 2 grams a day as it is a natural antihistaminic, but what do you think about Vitamin C mega dosing as proposed by some people in tens of grams? Could that help? Or what about copper deficiency?

I know copper is involved with diamine oxidase and I am now thinking of supplementing it. I know there are also some DAO supplements but I'd rather trace the cause. Besides it seems that DAO supplementation is not really working for most people. Also could HIT be linked with heliobacter?

Is that right?

I would love to hear your take on HIT and also some diet advice, following a low-histamine diet is extremely hard and histamine intolerance is highly under diagnosed. Many people with IBS could actually have HIT!

Thank you very much in advance. Keep up the good work.  
OSU Roberto.'

I don't know what OSU is. What's that?

Robb Wolf: I think it's 'osu' for Jiu Jitsu. Yeah, I'm guessing. If not, then--

Greg Everett: That's like the Jiggy-plata

Robb Wolf: Yes, yes. It's the triple hook.

Greg Everett: Salutations.

Robb Wolf: There's a lot going on in here.

Greg Everett: Lot of thoughts? [Laughter]

Robb Wolf: I'm just more nervous about super physiological levels of most of these vitamin type, nutrient--

Greg Everett: Well, he's already getting the trots, that seems like a bad idea.

Robb Wolf: Yeah, exactly like that. That's the thing. Related to the previous question, I think that this is something that hadn't really been on my radar for a long time. I remember reading about this stuff and then this just get in and out of your sphere of what you're reading.

I think the histamine intolerance could be a legit deal. When you look at the foods that are involved in this if there's a website [allergy.uk](http://allergy.uk) talking 'bout this stuff, 'foods you can't eat' all fresh meats except chicken, any vegetables not on the list above which is fairly extensive. But what they do recommend, root vegetables such as potatoes, carrots, parsnips, beet roots, sweet potatoes are fine.

When we start looking at a basic paleo structure, I really don't see this being horribly difficult to pull off. Fermented foods are a problem, dairy's a problem, tomatoes are a problem, some different fruits are problematic but it doesn't seem like the end of the world to do some tinkering with this and it seems like I eat pretty close to this anyway, most of the time.

Gosh, what is the other question -- copper deficiency, really good zinc supplements like a jar of OptiZinc actually carry some copper because when you supplement zinc then you tend to excrete some copper and there's some synergy there and you wanna make sure that you have enough copper so that you produce superoxide dismutase.

On the supplementation side, I have no idea. We'd have to look really specifically at this but to me it doesn't seem like it would be that hard to tinker with the histamine removal program and still remain pretty much paleo, and then related to the original question with the LDL levels, it's really not that high.

**[00:25:00]**

Robb Wolf: That 185 or the 4.8 millimoles per liter, which is the international standards that the US should be following, too but we're not.

Greg Everett: [Laughter] Why would we do that? We still use pounds and feet.

Robb Wolf: I know, so that we could crash Mars rovers into the planet by not doing our -

Greg Everett: [laughter] It's not a big deal, just several millions of dollars.

Robb Wolf: Yeah, [Laughter] details. But, you know we're gonna get Dr. Terry Dahl on the program somewhere down the road. She's from the National

Lipid Association and she makes a really important point that when we are looking at blood work, like what we have listed here, HDL and LDL, those are the cholesterol fractions of HDL particles and LDL particles.

And it's really the particle count that is much more important. She makes the point that it's the cars not the passengers, and what we have here, are the passengers. She is much more concerned about the number of cars, the number of particles and to some degree, the size. And even within that, I've been talking to these folks a bunch and I think that they really need to consider more heavily the systemic inflammatory markers like C-reactive protein and fibrinogen and some other stuff.

But the long and short of that is that these numbers as a stand alone are not particularly concerning to me. I would try to get an LDLP and LDL Particle count and also the particle size, the vapo scores and stuff like that, if you really wanna track this. But I'm pretty unimpressed with this as far as it being a problem and I really doubt if this stuff is being caused by a histamine response.

Although it's an interesting thought for some people, if they do have some weird elevated blood chemistry I'm suspecting that more and more of these blood lipid problems or cardiovascular problems are systemic inflammatory issues, and what if a big slice of that is a histamine response kind of problem and it's irritating the immune system and what not. That could be a factor that something I haven't done any reading on, any correlative type stuff, but it's a potential.

So, I don't see it being that hard to do, some tinkering with a low histamine paleo approach and see how you feel. I'm not really all that worried by the blood lipid levels that you're describing here, not really that fired up with some of the supplementation like the vitamin C. Although you certainly could do some and see if it improves things; but I'm also not super impressed with some of the results that we're seeing in long term super physiological doses of different vitamins.

Greg Everett:

Alright, this is a weird one. But I suspect it will be quite interesting. Kelly says, 'I have been following a strict paleo diet since the beginning of February. My workouts are yoga four days a week and strength training 3 days a week for about 45 minutes.

My health has improved a lot, but I still have issues with adrenal fatigue and insomnia. I go to bed at about 8:30 and sleep great until about 2:00 am. I have a really hard time getting back to sleep. I get up for the day at about 4:15 am. I thought that my cortisol levels were high, but was surprised when I had them tested.

My cortisol levels are extremely low. I bought some Seriphos and started taking it; 1 cap in the morning and 1 cap at lunchtime. I love how calm it made me, but I am concerned that it should only be taken if cortisol levels are high. My levels are: 6.47 (early AM), 6.19, 2.65, and 1.92 (before bed). Is it okay to take Seriphos with cortisol levels this low? Also, what do recommend to raise cortisol levels? I love all that you do and thanks for your time.'

Have a few kids, get a puppy start a business and own a house. Yeah. That's the perfect cortisol raising formula right there.

Robb Wolf: Works with CrossFit HQ and have a bunch of battles with them.

Greg Everett: Oh, and have more money.

Robb Wolf: That will do it, too. The deal with this is that you, Kelly, could be on the back side of the whole cortisol deal. Like, she could've been in the elevated cortisol gig and now we're in the kinda bummed out stage.

Greg Everett: As in totally exhausted material.

Robb Wolf: Potential adrenal fatigue kind of state even though a lot of medicine doesn't really recognize that stuff. But, if you are generally feeling better, I would be disinclined to kinda run with the Seriphos. I have had some thoughts that if somebody is in that really low adrenal functioning state that the Seriphos could further suppress adrenal function, which would not be good.

**[00:30:04]**

I don't have any literature on that. It's just kinda one of those things and obviously, Kelly is kinda thinking along the same line here.

The fact that you're waking up at 2 AM like that, if you get into Chinese medicine and some of the stuff that's involved with that like there's probably like some estrogen metabolism issues going on here. I would definitely track down like a good functional medicine doc somebody who is solid on the stuff. You need a little bit of help with this.

I don't think that the Seraphos is probably that big of a deal but it sounds like you need some adrenal support whether that's like adaptogen blend or short term DHEA or something like that. It sounds like you need a little bit of help with this.

You may have had a long run of some really high stress and then that has snow balled into the current situation. But I suspect a little bit more going on that needs addressing and it's not gonna lend itself to a simple like yes no, yes, Seraphos is good or whatever.

I would seek out some help and try to get some sort of functional medicine doc looking at a really comprehensive hormone panel and like a 24 hour cortisol thing. It looks like you did a 3 point ASI but I would look a little bit deeper. And I'm assuming Kelly is a female could be a guy. Apologies.

Either way, **[Laughter]** you know looking at the estrogen progesterone levels if you're a female, throughout the month that would probably be helpful too to just piece together what's going on here. Cool.

Greg Everett: Alright. This one will be good for you Robb. Training for the zombie apocalypse.

Robb Wolf: You two pass salts now.

Greg Everett: Right! **[Laughter]** Robb and Greg. Hi there. First of all, let me get the obligatory compliment out of the way. Your podcast is wicked awesome. And your shenanigans keep me entertained on my Tuesday commute. So thanks for that. Smiley face.

Robb Wolf: Sweet.

Greg Everett: Yeah! As a former long distance runner I usually keep away from anything that involves chronic cardio but I came across a sweet 5k run that I couldn't pass up. It is a run for your life 5k obstacle course with zombies that are trying to get you. You're given a flag belt and your goal "survive" with at least one flag remaining.

I think this race is a great paleo endeavor will be a trial run for the inevitable collapse of the western world. And we paleo people are the only people that could survive without the Golden Arches. Kind of only half kidding. **[Chuckles]**

Since I'm now officially a paleo badass and need to show those zombies the business. I have the important stuff taking care of watch zombie land in no less than a dozen times, picked out a cute zombie sling outfit but I'm stuck on how to train. So what would you guys recommend for a training regimen?

I was thinking plyometrics, some temple runs, and keep enough with my current pyro lifting regime. On track, off track the other ranch in

this whole plan is that the race is August 18<sup>th</sup> in St. Louise which will be hot, hot, hot. I have MS and have a heat sensitivity if not properly adapted.

Any ideas? I'm pretty pumped and thinks that this will be one of the most fun things I'll do all year. Any ideas would be great. I'm including the link to their website for your viewing pleasure. Thanks!

Robb Wolf: Well one thing, we definitely, especially if you're super cute we would love a photo of you on your zombie sling outfit just on the side [Laughing] But yeah it does -

Greg Everett: Before getting slaved by the zombies

Robb Wolf: Yes before getting slaved by the zombies. So make sure to shift that in. But yeah it sounds fun. I like the training program if you're doing some power lifts and, doing some agility stuff. If it looks like you're gonna be going up and over some obstacles.

I know like the little kid playgrounds around here. They have some walls that have a little rock climbing fixtures and stuff like that. But you can practice going up and over that stuff. I'm just curious can you actually be proactive against the zombies?

You know like stiff-arm to the face, elbow to the groin type of stuff. So, you know that might be something to practice to get a body to put on some body armor type stuff and you can yuf 'em up a little bit. But I like the training, seems good. The heat issue is really a big deal.

I am suspecting that you live some place that's significantly cooler. I guess it's just to the best of your ability, train hot. Even if it's decently warm outside like train in a sweat shirt. Even if you don't wanna do that like training with a beanie on, you vent so much heat off of your dome that just training with the beanie is gonna keep you a lot warmer and will start working towards heat adapting you a little bit.

**[0:35:00]**

But a 5k race too isn't so long that, I think that that's gonna be that it's gonna be that big of a deal and it looks like there are some blood-colored water obstacles that you'll be leaping into. [Laughter]

Greg Everett: Excellent.

Robb Wolf: You could probably cool off a little bit. So, that's my thought. Greg any thought? I gotta say, I'll just pass on it.



Greg Everett: No, no, let's hear it.

Robb Wolf: If you're wearing this flag and then you have zombies like groping you trying to grab these flags and it seems like a not bad zombie job. [Laughing].

I mean not to be a complete lecherous turd but I'm looking at this one zombie on here and the dude is all like football stance ready to like dive at this chick and I'm kinda like I would dive to hers so I don't know.

Greg Everett: Do they still have a par course things around?

Robb Wolf: They have one in Reno that I've gone and played with. It depends. They have 'em around.

Greg Everett: Those things are sweet. I know they are kind of not in style anymore, and probably they're disappearing forever because people are just too fat lazy to do anything with them. But those are the best. I remember, the last one I saw was in Lower Bidwell in Chico.

And you could just cruise through there. So if you can find something like that to play around on or find a playground, like Robb said that's probably a good place to start. And definitely training hot, I do that sometimes well I haven't done 'em a long time. And I mean a long time.

But I get super hot when I'm lifting and usually gyms are really hot like if you're doing a local meet or even national meets. The so warm up rooms are often very crowded and small and extremely hot. So if you're not used to that, you just feel like you're gonna pass out every time you clean and jerk.

So training and more clothing than you would normally like to and just getting accustomed to that if not physically, at least mentally known that you're not gonna die hopefully, that should prepare you pretty well. And then you just get all of you friends drunk and put on some flags and just go to town and the backyards and see how long you can stay away from them.

**[0:35:00]**

Robb Wolf: That's a good thought. That is a really good thought. Yeah and working in a little constrained space so that you need to do a lot of lateral movement and spinning.

Spinning would be a big one. Instead of just dodging sideways like plant on one leg and spin super fast it's gonna be hard to grab you. And accelerates that flag very very quickly so it's gonna not just a moving target but a quickly rotationally loaded moving target.

Greg Everett: I didn't look at the website but it sounds like that they're wearing multiple flags like apparently in some sort of like grass skirt-esque configuration so spinning might make it easier to grab 'em.

Robb Wolf: Oh just flippin them out. Yeah.

Greg Everett: You gotta cheat and tuck 'em into your belt. Alright. Let's see. Let's talk about smart body building. Ben StafAction, I don't know is that your nickname then? StafAction? Not quite sure how to interpret that one.

Robb Wolf: I don't know.

Greg Everett: There are quite a few ways with that. Hi Rob and Andy. Well Ben you're a mere 67 episodes behind but thanks for listening. First thing so much for what you do. I thoroughly enjoyed learning from you. I've listened to the first 50 podcast so far. Well there you go. The book is superb by the way. I plan to write a review soon for it over at the [primalchallenge.wordpress.com](http://primalchallenge.wordpress.com).

Okay my question. In the recent podcast, 49 [Laughter], you talked about a smart body building being the best for out to go for health and longevity. Okay so my question is what does that look like or where can you point me to learn more about that et cetera?

I'm very lean at a hundred at 147 lbs. After starting a crossfit-esque program, in January I've gained 8 lbs presumably of mostly muscle. But I can't do this program for life mainly because it's expensive and reliant on an instructor 3 days a week. I wanna get strong and be strong especially in my upper body.

I can run half marathons, no problem. So what do you recommend? What is smart body building? Thanks. By the way I went to a recent paleo/primal meet up in Atlanta and was surprised when some folks I was talking to had not heard of you.

What? You haven't heard of Robb Wolf? I had to contain the surprise. Keep up the great work and I really enjoy the rapport you and Andy have on the air [Laughing].

Robb Wolf: So obviously this is an old one.

Greg Everett: Oh boy. He said he's listened to the first 50 podcast.

Robb Wolf: Gotcha.

Greg Everett: You're gonna be in for a rude awakening in 20 more.

Robb Wolf: Yeah! [Laughing] Smart body building. Michael Rutherford wrote a really good performance menu article. God I can't remember which.

**[0:40:00]**

Was it 2009 that he did kind of that last iteration of the Max Effort black box?

Greg Everett: Well, that sounds about right.

Robb Wolf: I'm pulling up my current reading folder which I have that article in because I think it's quite good but you know, I really like that one. There's even one on T Nation right now that's on hormonal optimization training and really what both of these things that I see in common, you have some kind of max effort type work.

But not so much max effort in that you're in there like slaving on yourself and head butting the bar but you've got a dedicated strength move that's probably 80-90% with your 1 rep max and you do your own like sick maybe anywhere from 3 to 8 sets of 1 to 3 reps.

So kind of a heavier type of movement that's working those high end motor units and keeping you strong and powerful and all that jive. And then I just think doing anything in that like 6 to 12 rep range more than the first thing that I was talking about heavier weight, long rest periods, 2 to 3 minute rest periods very neurological based.

And then this other stuff, lower weight, 6 to 12 reps, short rest period, more long like a minute and following those Prilepin charts. Probably, the most that you would do for a movement is somewhere around like 50 reps in a given workout and probably getting 2 exposures per week on pressing, 2 exposures per week on pulling, 2 exposures per week approximately on lower body type stuff; squatting, deadlifting, weighted lunging and all that sort of stuff.

You could do a concurrent method or conjugate method where like you are training kind of a max effort kind of gig and a body building repetition effort in one session or you could do kind of old school Russian block training where you do an accumulation phase say like you do on 5 sets of 5 but the first week is at 65% of 1 rep max.

Second week would be 70. Third week would be 75% and then you do an unload week and then you do say 2 to 3 weeks of an intensification block where you're doing like those 6 sets of 3, 10 sets of 2 of heavier weight, lower rep, longer rest periods.

I think either way it would work great. Both of them would be reasonably fun because you're changing stuff up frequently enough that you're not getting bored. I think rotating through the movements as frequently as you can so that you're avoiding orthopedic problems. That seems pretty good.

And the further and further I go long I really like ring work for upper body stuff just like even if it's skin the cats, front level back lever type things like what it does for thoracic mobility and shoulder mobility is pretty amazing and just accumulating time under tension on the rings seems pretty remarkable for upper body development.

Greg Everett: I like it.

Robb Wolf: Thoughts?

Greg Everett; Yeah, that's almost exactly what I was gonna say. I think the smart part comes in having those really fundamental strength movements as the foundation. I think body building gets dumb when you diverge from that and you get into the all machine, all isolation kind of madness which I think those things can have a place.

But they have to be in addition to a more solid foundation and that is kind of compound functional, I hate that word but you know what I mean, strength movements. So you're squatting, you're dead lifting, your upper body push, your upper body pull both horizontal and vertical for both of those and Robb had a good suggestion there. Honestly it doesn't really matter how you do it because all those things are gonna work.

Just keep rotating through those different approaches and I think that'll work even better. And then especially just go for as much variety as possible with the accessory work. With the foundational stuff, the squats, there is only so many squat variation that are not ridiculous so you're not going to get a lot of variety with that stuff but you will get the variety of the different weights and sets and reps and all that kind of stuff.

**[0:45:00]**

But with the accessory stuff like the unilateral variations or anything like that there's about a million different ways to do that so that's a

great way to get variety which is gonna help put the muscle on, it's gonna help you keep your sanity and actually enjoy it to some extent so, have fun with that.

Alright, Molly says, dear Robb and Greg, This is my second round with Paleo, as my husband says, the first time I fell off the Paleo wagon I got ran over by the back tires. I had lost - that's a modern wagon with tires.

Robb Wolf: Indeed.

Greg Everett: "I had lost about 20 pounds and gained 15 back. Anyways, I love being on the Paleo diet. I have asthma, eczema and Hashimoto's thyroiditis. And the first two issues are almost non-existent now. As for the Hashimoto's, I'm on Synthroid and my dosage keeps going up. I expected it to go down. Any thoughts? I'm trying to lose some fat. I track what I eat with myfitnesspal.com and I average around 500 calories a day." Holy shnikes.

"I'll eat about 3-5 ounces of protein and some veggies and I'm satisfied. I'm just wondering if this is too few calories for weight loss. Sounds like the dumbest question in the world." It's not.

"Additional info, I walk or hike half an hour to an hour a day. I weight 178 right now. I've lost 17 pounds since January 7, 2012 thanks to Paleo, height 5'6", and I drive a computer for most of my days and chase my three little girls the rest of the time. I've been strictly Paleo since the first of the year, and for February and March of 2011. Thanks for your wisdom and humor."

Robb Wolf: I would go out on a limb and say that you're probably eating too few calories. I mean even just to maintain the muscle mass that we would like to keep on you during the lean out process. And it's doubly concerning for me because of the Hashimoto's because you've already got some suppressed adrenal function and then if we are real low calorie, potentially elevating cortisol that can add antagonize cortisol, thyroid function as well.

If you do just a little googling Chris Kresser thyroid, he has a ton of articles on this stuff and I would really do some reading on that. Typically, iodine is contra indicated for Hashimoto's but Chris has done some research on supplementing with incrementally higher doses of Selenium and if that will protect you or mitigate the negative effects of iodine but you need to do some research on that.

You probably need to get a health care provider to guide you through that stuff but just putting this on your radar that there are some

options that you might be able to better manage the Hashimoto's through all those activities and potentially part of the problem if you're reading Paleo and then the Synthroid dose is going up is that you may not be getting enough dietary iodine like unless you are eating the sweet out of animals which is the thymus gland, thyroid gland.

Unless you are eating good amounts of seafood or sea vegetables you're probably gonna end up a little bit skinny on iodine or if you're not using iodized sea salt. So that's all the stuff that I would think about, I would definitely up your caloric intake, up the protein intake. You should probably be at least in the 1500 to 1800 calorie range, maybe even a little bit more. But I think that that would be a much safer range even from just a nutrient deficiency standpoint like 500 calories is just so skinny

Greg Everett: That's only five and a half blocks.

Robb Wolf: Yeah. Yes. And even in Barry Sears' land that is not all that much food so.

Greg Everett: That's running pretty lean.

Robb Wolf : It's pretty lean. I would definitely up your calories, I would definitely try to track somebody down either Paleo Physicians Network, functional medicine docs, somebody that has some experience and the great way to interview people when you contact them is do you understand how to manage Hashimoto's Thyroiditis. Yes. Do you recommend a Paleo diet? If they say no, then probably keep shopping.

That's a good way to check that stuff out but I think that there are ways that you can better manage the Hashimoto's and hopefully even put into remission. Do the reading on all of Chris Kresser's stuff on that topic and definitely up your calories. I think you're probably doing great otherwise but I think you're too aggressive on the calorie restriction and you might be getting some worsening of the Hashimoto's because of low iodine intake.

Greg Everett: Alright, should we wrap it up on this next one Poison Ivy and Autoimmune?

Robb Wolf: Yeah. Yeah.

Greg Everett: Sound's interesting. Grayson says hey dudes, read the Gluten equals Poison Ivy analogy in the book, just heard it also on podcast number 6, working backwards, almost done.

[00:50:00]

And it got me thinking about how the immune response to poison ivy might affect auto-immunity basically the inverse of your analogy. If this question were to be read, I'd just assume let you explain the analogy rather than me giving my probably, way off interpretation of it.

I think I can get right to the point and ask in the same way that chronic passing of bad proteins through a leaky gut leads to auto-immunity, could getting a really bad case of poison ivy re-ignite a dormant auto-immune condition?

I have Crohn's and after months of getting better from going Paleo, I've taken a downturn despite cleaning up my diet even further. Mostly in terms of dairy, I never eat grains. This has coincided perfectly with a downright nasty case of poison ivy I got while looking for ramps in the woods. I also got attacked by ticks, so while the ramps are downright delicious, I'm seriously re-considering my move back to New England last year at this point.

If this sounds plausible I'd love a little advice on what to do. Tighten up the diet to auto-immune protocol till it subsides? Anti-inflammatory supplementation? Keep training or take a break? Any way to get rid of that nasty stuff in the poison ivy is or whatever that nasty stuff in the poison ivy is.

Sorry I just forgot how to read. Thanks so much for everything, I owe so much to this change and am stoked to pay it all back/forward. Last podcast was hilarious by the way; they just keep getting better even though the message stays the same.

Robb Wolf: They have the subliminal message in the shopping malls, it's like buy stuff. It's interesting like I had just kind of pulled the poison oak/poison ivy analogy kind of out of a hat to get people to -

Greg Everett: Out of my hat **[Laughter]**. Good one.

Robb Wolf: Because what's involved with that is a long oil that works its way through the skin and has these polysaccharides on it and these protein fragments that just irritate the heck out of the immune system and so you get an immune response.

And really when you get right down to it if you look at the characterization of it they consider it an autoimmune response because of the way everything is reacting.

So related to the basic question, could in exposure to poison oak/poison ivy flare something like Crohn's or another auto-immune disease? Yeah. Absolutely. Whenever you get a potent immune response the likelihood for collateral damage is just greater and so I don't think there is any doubt to that.

Do just a little bit of poking around in Pub. Med. You'll see these relationships have already been pretty well established. How you could mitigate it? I guess just being really really especially tight on your food so that you are not consuming gut irritating food like a very very tight auto-immune protocol.

Only grass-fed meat, wild caught fish, no grain fed protein sources ideally on an auto-immune protocol; roots and tubers, no skin, very well cooked. If you have any vegetable matter it's well cooked. If you have fruit it's cooked because basically we're trying to make everything very very digestible.

Probably using Betaine Hydrochloride to supplement and improve digestive function, making sure that your vitamin D levels are good. Something like green tea or curcumin, these potent antioxidants that also have immune support activity could be good, could definitely be good.

Making sure selenium levels are solid so that we're making glutathione. Any of those things that support liver function that play into glutathione production is going to buy you a little window of time on that systemic inflammatory response but the reality is that getting a good dose of poison oak/poison ivy like you're on flame for quite a while like you've got that stuff for at least a week.

And that's part of the nice elements of the analogy too when people are minimizing the effects that gluten has on our system. If you're used to getting a bee sting, poison oak/poison ivy that stuff doesn't go away immediately. It's irritated for quite a while and that's very very similar what happens with the gut.

Yeah. I mean the long and short is that poison oak/poison ivy exposure could definitely irritate an auto-immune condition. I think being extra tight on your food, extra tight on things like Vitamin D status, sleep and all the rest of that would probably help but it's not gonna totally make it go away.

**[00:55:05]**

Greg Everett:

So, quit tramping around the poison ivy.



Robb Wolf: Yeah. Unless chasing some hot chick around on the poison ivy or something like that but..

Greg Everett: Or you're running away from zombies.

Robb Wolf: Or you're running away from zombies. Yeah, and you're trying to make sure that they don't grab your flag as it were.

Greg Everett: Cool. Well, we're done.

Robb Wolf: On the books.

Greg Everett: Anything come up during there you need to let everybody know?

Robb Wolf: I don't think so. I don't think so. I ate some really spicy curry last night and I'm glad that we're wrapping things up here because I could have a moment alone for sure and be completely okay with that.

Greg Everett: Alright. Well, we'll let you go take care of more important things than the podcast.

Robb Wolf: It's not more important, it's just competing for importance.

Greg Everett: Okay. Fair enough.

Robb Wolf: Yeah.

Greg Everett: Good to know.

Robb Wolf: Alright man. Thanks for everything. Will talk to you soon.

Greg Everett: Alright. See you.

Robb Wolf: Later G.

**[0:56:18] End of Audio**