

## Paleo Solution – Episode 144

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Robb Wolf: Hey folks, Robb Wolf here, Greg Everett in the house. This is episode 144 of the Paleo Solution podcast. Greg what's going on?

Greg Everett: Not much. Just getting here ready to hope that you have some good answers for these questions because I'm most assuredly do not.

Robb Wolf: I'll make something good up and Squatchy he done pick us a good round of questions he did, that bearded maniac.

Greg Everett: I just see here at number 9 is titled joining the circus. So god knows what that one's gonna be about. You all just have to sit through all of these other stuff first.

Robb Wolf: What's the saying? I love the clowns but I hate the circus.

Greg Everett: Everybody loves the cane. That's a little bit of news radio humor for you. Joe Rogan would get it.

Robb Wolf: Joe would get it. So what's new with you? What's cracking?

Greg Everett: Man nothing. Just chipping away at the same old bunch of usual stuff. I feel like I'm just getting more and more boring by the minute.

Robb Wolf: It's called o-l-d in the words of Michael Ruthford.

Greg Everett: Yeah. There's some of that definitely but what qualifies as excitement around here probably doesn't seem so exciting outside of Catalyst Athletics.

Robb Wolf: Funny how that works.

Greg Everett: Like getting new metal jerk tables and another pair of blocks.

Robb Wolf: That's cool. I would get excited about that.

Greg Everett: So sweet.

Robb Wolf: I would be excited about that. What's going on around these parts?

Greg Everett: You just wrapped up your AHS talk, getting prepared for that.

Robb Wolf: It's about 95% done. There'll be a little tinkering and fiddling. Actually when this thing goes up I will be about 18 hours away from jumping on a bird and leaving Reno at 4 am to go to Boston and hang out with some folks. Gonna see John Frankl, my old friend who's black belt in Brazilian jujitsu and a PhD from Harvard in Korean literature and then I will see all of the other hooligans associated with AHS 2012. So looking forward to that.

Greg Everett: Make sure you ask him for me how his sternum is feeling these days.

Robb Wolf: What happened to his sternum?

Greg Everett: You remember Zach coming in and getting a little crazy.

Robb Wolf: Oh that's right. I do remember that now. I do remember that. Super cool dude.

Greg Everett: I remember you telling me a couple years after that it was still causing him problems.

Robb Wolf: Yeah. Not quite right.

Greg Everett: Oh boy.

Robb Wolf: Of course mine's never been right since that three day weekend of doing the jujitsu seminar with you Matt Thornton. I think you were laying 235 or something and Matt's like 275 and yeah. It was broken after that.

Greg Everett: Yeah well I know how I felt after having Matt Thorton lie around on me. So I could just imagine what you felt.

Robb Wolf: It was a grand old time. Well hey we're kicking off a new era in the Paleo Solution podcast. Some folks have actually been foolish enough to want to sponsor us and the first person who jumped in is actually an amazing company - US Wellness Meat.

These guys had been around for ages. They have been battling the good battle for a long time. They are a produce their own grass fed meat company, the cattle's raised from birth to processing on a natural open grazing environment. There's no hormones used.

They are not certified organic but that's largely because the whole organic processing thing is -

Greg Everett: Nonsense.

Robb Wolf: Kind of nonsensical and dramatically increases the price but they have a whole biodynamic system going on there with free range poultry, pastured pork - all that good stuff. So super stoked that US Wellness Meats has chosen to be our sponsor. For you all the listeners if over the next two weeks when this podcast goes up you have two weeks and any order that you make from US Wellness Meats you'll receive a 15% discount if you put in the following: Paleo4u.

So once this podcast goes up on Tuesday Paleo4u will give you a 15% off discount on all purchases from US Wellness Meats and we'll have a link in the show notes to US Wellness Meats but Dr. Google can in fact track you down US Wellness Meats reasonably easily.

Greg Everett: Yeah he's giving the link right now so I can put it in the notes.

**[0:05:05]**

Robb Wolf: Perfect.

Greg Everett: What a guy.

Robb Wolf: So thank you again to US Wellness Meats for sponsoring the podcast so that we can feed our hungry Sqautchys and Amies and Stephs and all that stuff. So very cool.

Greg Everett: Exactly. That's awesome. It is indeed a brave new world for podcasting.

Robb Wolf: I'm shocked that they were willing to do it but they were so we're super excited.

Greg Everett: Let's not talk them out of it.

Robb Wolf: Yeah totally. So anything else? Do we just jump in on this? Is it that easy?

Greg Everett: I think we jump right in.

Robb Wolf: Okay.

Greg Everett: It's that easy. It's as easy as we want it to be.

Robb Wolf: I was gonna have an easy analogy there but I'll just keep all the wheels on the road for right now.

Greg Everett: Hey we've got 9 questions. There's plenty of time to get started off the road.

Robb Wolf: Perfect. Okay.

Greg Everett: All right. Jeremy says Greg are the new Reebok/CrossFit lifting shoes which are supposed to be good for some things other than lifting any good or is this type of dual purpose lifting shoe just snake oil? Many thanks to you, yoda of lifting heavy things.

Robb Wolf: You're larger than Yoda.

[Cross-talk]

Greg Everett: Honestly I don't want to beat up on them too badly because I've only seen one person in my entire life use them and I saw her for two days at a seminar. She didn't seem really care one way or another about them but she was indeed a CrossFitter so they're more appropriate for her than a weight lifter obviously.

For a weight lifter someone who's gonna take snatching and clean and jerking very seriously I would not recommend them and that's based on very little information, very little feedback for people who've actually used them so take it with a grain of salt but there's a reason that company's make legitimate weight lifting shoes.

Robb Wolf: Real specific shoes yeah. So what is the spec on them like they've got a heel I would assume?

Greg Everett: It looks like they have a heel and it has that little zigzag thing on it so it looks super awesome but they look to me like they're just a little bit lighter weight and more flexible which lightweight is great, flexible - I'm not a big fan.

You want a fairly stiff, flat sole and then when I say flat I don't mean not a raised heel. I just mean -

Robb Wolf: A non traction.

Greg Everett: Not so flexible one like the shoe needs to flex a little bit around the balls of the feet for the jerk and all that but if it's just a squishy sort of - They look like slippers with a raised heel practically. So honestly like you're spending \$150 on them you can get a decent pair of Adidas shoes for \$150-\$200.

And with the CrossFit workouts honestly I have said this a million times before but I don't really like doing barbell Olympic lifts in conditioning workouts anyway. So that kind of makes the whole dual purpose shoes needs a moot point anyway.

Robb Wolf: What is the situation that you would be like okay we would use these shoes. I agree with you. I'm not super fired up about barbell complexes other than the way that Javorek laid these things out with specific rep schemes.

[Cross-talk]

Greg Everett: We had that conversation. That's way different.

Robb Wolf: Totally different deal but what is a scenario in which someone might want these shoes?

Greg Everett: You forget your other shoes?

Robb Wolf: Say you're doing a clean pull up work out or a clean muscle up workout.

Greg Everett: Then they may be absolutely fantastic but that said if you're just doing pull ups or muscle ups or some non foot supported exercise in addition to the Olympic lift then you can just use regular weight lifting shoes.

So the only reason that it comes to mind that you would really want a dual purpose shoes if you're combining it with something like running or something similar ground-based where you need to be a little more agile, have a little more flexible shoe but then again you run into the problem where because it's dual purpose it's just not very good at anything which I think is the basis of this question.

Is there even a point and yeah it's a great theory. It would be nice to have a shoe that could really do it all but I think that for the CrossFitter I tend to just recommend people use a nice thin flat soled simple shoe and I think they can get away with pretty much anything.

I think that's gonna do better. That's gonna be better for the running and these other things than this dual purpose shoe will be good for the weight lifting stuff.

**[0:10:00]**

Robb Wolf: Not the first workout because they have the triathlon first but they have the track and field work out that were like some split snatches with some running and some pull ups and kettle bell swings or something like that.

[Cross-talk]

Greg Everett: - for a split snatch you don't really even need those things.

Robb Wolf: You don't need the heel.

If it's power variance you don't need it. It's nails on the chalk board. Everybody cleans and snatches with a full variance say a squat clean and squat snatch is fucking broken but anyway as on the side when I say clean and snatch I'm assuming the full variance here.

So here's one deal. If the loading is light like the weight that they would normally run say like an Isabel or something - if the loading's comparatively light then that heel becomes way less of a factor. If you've got a running Isabel or something like that where you're doing 400 m runs or 200 m runs in between again the loading is comparatively light and you really want to play to

what's going to be the longer portion of the activity which would be the running.

I'm trying to figure out what would be a scenario in which some sort of Cross train or shoe like with this would be appropriate but if you have maximum loading say like you're gonna do some really heavy cleans, some really heavy snatches and some muscle ups or something then you would want to play to a regular olay shoe because of the support it's gonna provide in the upper right torso and a better ground contact and all that stuff.

I'm really trying to find some thing where we could make an argument on this.

Greg Everett: You seem to be trying way harder than - I guess I'm not that enthusiastic about it. To me it's like you've got your weight lifting shoes and then you got your everything else shoes. You know what I mean, and ne'er the twain shall meet. I just don't see a need. It just seems like one more thing to market to CrossFitters from Reebok which of course it is.

Robb Wolf: I'm just trying to figure out -

Greg Everett: Stand strong CrossFitters.

Robb Wolf: Could you figure out a scenario in which these guys would be appropriate? I guess we're really legitimately coming up with probably not.

Greg Everett: Appropriate yeah. Ideal no which is the whole point. They're gonna be suboptimal for every single thing you do so I think like you said a second ago is just figuring out what is the thing that's gonna be the bulk of this workout and that the shoes are gonna to affect the most -

[Cross-talk]

Robb Wolf: Oli shoes are pretty heavy so if you have a snatch or a clean combined with toe the bar's or pull ups or muscle ups or something then you could maybe strategize okay it's not the heavy loading but my more upright position via this heel lift is gonna give me a little bit better pull, little bit better catch so that's all good.

But then when I get ready to do my gymnastic base deal or whatever then I'm lugging around a couple of pounds less particularly if it's out at the end of your lever like you do in toe the bar or something like that.

Greg Everett: I mean good lifting shoes aren't really that heavy though.

Robb Wolf: Maybe I'm just whiny.

Greg Everett: A good Adidas shoe is really not heavy at all especially the new one.

Robb Wolf: I have some old Do-wins and they're fudging heavy. There are probably cloggers that would be like yeah your shoes are heavy. You need to get something made in a 2000 teens.

Greg Everett: Really the problem with using weight lifting shoes for things other than weight lifting is the fact that you do have a raised hard heel and more I think really is that you really have a sharp edge around the sole of the shoe.

So in other words if you don't land with a flat foot it's really unstable.

Robb Wolf: You're gonna roll.

Greg Everett: So when you're doing things like running or any kind of cutting motion or things that are unstable, changing base you want the flexibility and the - I can't think of the word I want but you just need a shoe that can -

[Cross-talk]

Robb Wolf: That's more dynamic than Oly shoes.

Greg Everett: I don't know. I don't see a point honestly.

Robb Wolf: I was working on it man but we've spent 15 minutes on shoes which probably has no application.

Greg Everett: I honestly thought this was gonna be a one minute question.

Robb Wolf: I had to drag it out so.

Greg Everett: So yeah give them a shot if you like them but if you're thinking of buying them instead of weight lifting shoes I would definitely not do that. I would just buy some weight lifting shoes and then anything other than toe shoes.

Robb Wolf: Cool.

Greg Everett: All right. Julie says aloha Robb and Greg. Love the cast and would love to hear your thoughts on DNA dictating our personal best workout especially any of us finally plunk down \$500 for the phenotype cheek swab test - ouch. Please see below report and mahalo nuai for any insight you can offer. Julie. I'm sorry. I probably murdered that Hawaiian pronunciation.

**[0:15:29]**

Robb Wolf: I'm sure it was great. I think that there's probably - if you've got some money burning a whole in your pocket you can definitely do some genetic testing and it'll give you a pretty good idea if you're more fast twitch or more slow twitch dominant and that would give you some indication what type of rep schemes that you can work in and get best effect.

I think Pollican's the first guy that put the rep testing on my radar and it was ages ago. Maybe a Teen Nation article or something like that. Say you had like bench press or back squat and you took 85% of your 1 rep max and then you just try to get as many reps as you could on it and somebody who is very very fast twitch dominant like a legit 100 m sprinter would only get 3, maybe 4 reps of 85% of their 1 rep max.

Somebody who is much more intermediate twitch would probably be able to get 8 or 12, some people get as many as 15 when they're more low gear slower twitch dominant.

So you can figure some of this out just be doing some weight lifting type testing and also I mean to some degree do you put on muscle easy, are you real fast, do you jump higher than the people around you and if you don't then you probably will do better depending on what your goal but my orientation is always the health longevity deal which usually means adding some muscle mass and all that sort of jive.

You probably will benefit from a little bit higher rep scheme not to say that you can't play around with the lower reps but you will probably benefit from the higher rep scheme. We had a client who - she made some pretty good progress in the gym but not spectacular and she was messing around with the Olympic lifting class.

So a lot of what she was doing like one-sies, two-sies, three-sies, not a lot of volume, reasonably high intensity. She wanted a rock hard but. She actually want her legs a little big better. She felt they were a little bit flabby and droopy and everything and then she did 23 in mean genetic testing and she came back double dominant slow twitch.

This chick does not have a fast twitch muscle even in her eyes and so I suggest when we got this information I suggested to her trainer that this gal start doing nothing really under 10s and more in the 12 - 18 rep range and all of a sudden she started adding some muscle mass.

Her but gets nice and juicy and everything and she had really good response to that.

Greg Everett:

And that's the first thing that stands out to me in this question is best work out for what because your goal is gonna be independent of your phenotype. What you're predisposed to being good at or what you're predisposed to responding well to is not necessarily the same thing that you want to do.

So if your goal is just to put on a bunch muscle or to lean out at least more aesthetic goals then I think it's probably fairly useful. But if your goal is something very performance specific then there's certain things in training that you're just gonna need to do whether or not they seem to suit you physiologically.

Like if I say hey I want to snatch and clean and jerk as much as possible but you're a slow twitch dominant person it doesn't mean you're gonna do snatches and clean and jerks for 15 reps. That might get you gigantic traps which is pretty cool but it doesn't change the fact that in order to get good at snatching and clean and jerk heavy you've got to snatch and clean and jerk heavy.

I'm sure there are some kind of balance point between those two extremes obviously but like in your accessory work you can either be more high volume -

Robb Wolf:

A little bit more volume oriented. I know Dan John who's got a good solid O lifting background and everything but when you poke around in his reading one of his coaches at one time said that he should never get lower than 10s. Or not never but he should spend the bulk of his time in the 10s region on back squats.

And Dan just commented on this stuff that he's migrated down. He's played around but then when he goes back to these sets of 10 that he seems to make the best progress. But then when he's doing Olympic lifts he's doing singles, doubles - that sort of stuff.

**[0:20:20]**

Greg Everett:

Cool. Alright. This is the world's longest subject line. N-acetyl L-carnitine and alpha lipoic acid versus thyroid function. Ken says based partly on the recommendation in your book I recently started taking N-acetyl L-carnitine. I took it three times in the morning and each time it knocked me off my ass - 0 energy.

I felt like I couldn't get out of bed and had great difficulty maintaining focus on the simplest tasks. I did some research and found information indicating that N-acetyl prevents T4, T3 being taken up by the cells and the body and hence for that reason used to help counteract hyperthyroidism.

Looking a bit further I found information that alpha lipoic acid can also affect the levels of thyroid hormones in a percentage of people specifically inhibiting the conversion of T4 to T3. This information kind of knocked me for a loop. Needless to say I won't be taking any more N-acetyl L-carnitine and will likely quit the ALA.

What's your take on this? I'm mixing acronyms here like an asshole.

Robb Wolf:

This was news to me. This question put this on my radar. I was not aware of this. Digging around - there was a great review article from 2004, 2005 that had 50 citations talking about how wonderful N-acetyl L-carnitine was for a variety of metabolic

situations as conditionally essential under certain metabolic situations.

And then the only real negative thing that I found in there was that there was the potential to block the T3, T4 up take by cells. You need to be taking quite a bit of it though. You need to be in the 2-4 gram per day for a wide range. You need 6, 8, 10 days before you really start getting this type of effect.

This could be deal and there was a similar deal with alpha lipoic acid - it can be an influence in this but it's at pretty high doses and if the doses that high alpha lipoic acid has enough of a hypoglycaemic effect. I think you'd be having blood sugar crashes before you would ever be worrying about the thyroid stuff.

So maybe this is why you were feeling lethargic after using it but it seems really quick and the also based off the amounts that are recommended in the book it doesn't seem like this would be the thing that was doing it. Maybe it had some corn in it and you reacted to corn.

I don't know. I'm guessing there but you're absolutely correct that this can be a factor but I would be surprised if this was the issue given the amount that you've taken based off the recommendations in the book.

Greg Everett:

Cool. Okay. Gut healing protocol. Evan says Robb and Greg great show. You guys save me from speeding with rage during my morning and afternoon commute, used to be an unfortunate hour long drive now it's actually not bad because of your show.

So thank you very much for your time and effort. Well you're welcome for the time. I can't say we put a ton of effort into it.

Robb Wolf:

We can though.

Greg Everett:

About as much effort as it takes to drive during that hour.

My question is about gut healing protocol. I've heard you mention it several times in response to a multitude of questions usually involving someone's intolerance to a Paleo-esque food. Every time you've mentioned it however I've not heard you going to depth about what the protocol involves.

I've read some things from Pollican's site and other random sites but still don't have a good idea of procedures. Fodmap seem to come up often and I know you're pro biotic and super enzyme recommendation - I think he probably means the super food enzyme.

But what other protocols do you recommend if someone is feeling digestive discomfort even with Paleo foods. Also I have seen you say in the comments of your blog posts that you may be doing a pod cast in this soon.

So in case soon happened before this question is read by you here's another quick one that I would like to hear your opinion on. What do you think of Paul Jaminet's article The Trouble with Pork legitimate? Here's a link to the article.

We did talk about pork fat last time.

Robb Wolf: Yeah we've talked about. Evan we've talked about this stuff before brother. You might just have to dig around in the archives a little bit.

Greg Everett: Although people seemed not please with the pork answer.

Robb Wolf: No. You know what's really funny? I had a couple of people after I went on the Rogan gig and they were like Robb you were a fucking fraud for recommending bacon and eggs and I'm like please explain to me the biochemistry of why bacon and eggs are horrible and it's just like everybody knows they're bad and I'm like please no emotional responses just facts.

**[0:25:00]**

It's just like people just loss their minds and then one guy was like hey Robb what about eating the bacon and eggs and then finishing with kale shooter at the end and I'm like sure man. Knock your self out. Why have either or. Just do both.

And people were all spun about the pork deal. I've talked to Matt Lalonde about this. The short respectful answer is that I just disagree and I just don't see a problem with pork. There are people who because of systemic inflammatory issues particularly related to gut health which we've back into this here in a minute

grain fed animals can be gut inflammatory enough for some people that they have problems with them.

That is where pastured pork and grass-fed meat and all that become necessary for certain people. The gut healing protocol gets a little bit nebulous because you have different situations. So it's a little bit of flow chart gig. Chris Kresser has the personal paleo code which I've got a link to in the store and it's phenomenal and it has the autoimmune protocol detailed in there.

When Matt Lalonde came in the podcast what was it like Episode 68 or somewhere around there but we really delineated what went into this which was the basic paleo protocol. No grains, no legumes, no dairy.

And then for the autoimmune piece we further add curtailing night shades, tomatoes, potatoes, egg plants, nuts and seeds for the most part, any type of vegetable that you eat it should be peeled and cooked thoroughly, probiotics are certainly something that should be utilized and even within those there's such a spectrum of probiotics.

Some people do better with bifidum, some people do better with lactobacillus. I've seen some people do really well with the Saccharomyces boulardii which is a beneficial yeast. Some people actually have anti saccharomyces antibodies and they end up getting puffy and bloated from even from the s. boulardii. It's all over the place.

There's not a 100% road map and then the fodmaps - these fermentable foods, Chris Kresser just a day or two ago had a great blog post on fodmaps. So if you do a little Googling Chris Kresser fodmaps he did a great blog post on it basically talking about what foods are high in these fermentable carbohydrates that can cause some gut irritation and which ones are low.

Maybe not surprisingly or maybe it is surprising the things that seem to be better and easier for folks are things like cooked carrots, squash, yams, sweet potatoes, turnips - it ends up being carbohydrates versus there's actually a little bit more dent and easier to digest and that's part of the gut healing protocol.

Interestingly super high amounts of fiber are not good because fiber - do you remember colon blow from Saturday Night Live?

Greg Everett:

Super colon blow yep.

Robb Wolf:

It's equivalent to 10,000 bowls of fiber or whatever like barbed wire.

Greg Everett:

Phil Hartman was the guy - the straight man in that one. It's fantastic.

Robb Wolf:

Oh man genius. So you want to limit your fiber. It's not to say you don't have any you dial it down such that you have minimal GI symptoms - gas bloating, loose stool and then you can dial it up and see if you have some problems that come about from that.

So in big pictures that's the gut healing protocol. Again Chris Kresser's personal Paleo code is very very good at walking you through all that stuff if you check it out. I would highly recommend it.

Greg Everett:

Cool. All right.

Robb Wolf:

And we covered pork so we're good.

Greg Everett:

It makes me sick when I shoot people. Okay. I guess he's not a sociopath. Nick says and salutations. First of all I love your podcast. In Neverland you guys would be my happy thought.

Robb Wolf:

Scary but nice.

Greg Everett:

Second been strict Paleo for 2 years and feeling great so thanks. I'm a combat search and rescue aerial gunner in the airforce. The first thing that I pictured when I read this question is that scene in - oh my god. I just blanked on the name of the movie.

Robb Wolf:

Like Tropic Thunder?

Greg Everett:

No. The real one with effing Matthew Modine and the Stanley Kougar one.

Robb Wolf:

Full Metal Jacket?

Greg Everett: Full Metal Jacket. Get some. I fly 3 to 4 times per week doing hiyaka maneuvers. I don't know what the hell that is, shooting guns and hacking the mish. My problem is that I become motion sick almost every flight. I hate puking everyday like a bulimic model but I love my job.

**[0:30:10]**

I had accepted the fact that I would be sick til I retire. When one day I overslept, didn't get a chance to eat or bring food and rushed into work. I was figuratively starving and our flight got delayed. The rest of the crew ordered pizza to tide them over.

So I cheated like Ashton Kutcher - the result was a zero nausea flight. It was fan-fucking-tastic shooting the 50 cal with no bubble guts. So what was the deal? I'm assuming the heavy bread load, ha, soaked up all those stomach acids.

What Paleo friendly food or supplement might duplicate this effect? I appreciate any insight. PS I apologize Greg for the grammar. I might end up a 7 week bull whip school and my give a fuck is really low. Thanks for all you do for the universe. No problem.

Robb Wolf: I've actually researched motion sickness quite a bit because I used to not have it and then when I was boxing it was like 94 I've got an absolute bell ringer and wasn't quite right for a couple of days, probably should have gone to the hospital, almost certainly some sort of a concussion and ever since then if I sit on a swing set, I go on a merry go round. I get motion sick really easily.

Greg Everett: It's because you knocked your brain loose.

Robb Wolf: Yeah and there are these little calcium jags that can exist in the station 2 but those can get knocked loose and then sloshed around when the fluid in you're inner ear sloshing around and that can change some stuff.

There's a lot in the literature actually indicating that too much sodium intake can worsen motion sickness. Ginger is really well studied in preventing motion sickness but you've seemed to have discovered that pizza fixes it, so I uh ....

Greg Everett: Between eating ginger and pizza I know where I'm going.

Robb Wolf: Yeah or you just have sashimi style pizza with some ginger on top something. I don't know. I wish I had something better here for Nick but it's a head scratcher for me. Unless you've been eating Paleo and you've been low sodium and then this meal which would have a relatively high amount of sodium.

We've talked about on the podcast before that sodium has a U shaped curve with different disease states. Maybe a very very low sodium intake you get motion sickness, maybe an appropriate level of sodium intake you have reduced motion sickness and then maybe at high intake you have increased motion sickness.

That just occurred to me just now and I haven't really researched that so I can do a little Dr. Googling on that later but I don't know why. It's not from soaking up stomach acids. That's definitely not it. There's something else going on here.

Greg Everett: So I wonder what kind of a pizza was it? What was on it? Maybe he can deconstruct that pizza and try each ingredient at a time leaving the bread out see what happens.

Robb Wolf: Unless it was actually the bread which would be interesting, a little bit heart breaking kind of interesting cuz the one thing that might fix my motion sickness I would be scything myself from eating it. It would be reasonably off limits.

I guess you could try to track down a gluten free pizza and do the same experiment and then you try nachos and then you try chilli dog and bounce around the junk food scene.

Greg Everett: I like this experiment. This experiment's awesome.

Robb Wolf: It's a Steve Phan masked game and motion sickness study.

Greg Everett: There you go. Perfect. All right. Difference between normal water retention and an inflammatory response. Elaine says hi Robb and Greg. Quickie question for you guys. Yeah heard that one before.

Both times I've gone strict Paleo usually after a bad food bender. I've lost about 4 pounds of water weight over the course of the first 24 - 48 hours. Sorry I'm laughing cuz it says fist and for some reason I think I'm tired enough that that's hilarious!

Next morning the waist of my pants fits better, my rings don't get stuck on my fingers and of course the majority of my GI issues magically resolved. Is this simply a reaction doing low carb or could it be related to reducing inflammation by eliminating inflammatory foods?

I supposed that I'm concerned that my dietary indiscretions are affecting you worse than I think and what I passed off as a little bloating is more like inflammatory World War II decimating my innards. Thanks. Elaine from Reno. Welcome to the biggest little city Robb.

**[0:35:00]**

Robb Wolf:

Stoked to be here. I was just thinking about your comment. On a non systemic inflammatory side of things like we can store - I don't know - depending on how large the person is like 400-600 grams of glycogen between the muscles and liver.

The glycogen can associate with I think it's like for each gram of glycogen associates with 4 grams of water something like that. So you could have several pounds of water floating around in you just associated with muscle and liver glycogen.

So if you eat low carb for a couple of days you deplete the muscle and liver glycogen and you're gonna diurese and shed some water from that.

Maybe one of the indirect indicators or like a dietary protocol that tells you when you've eaten enough carbohydrate or enough junk food when people are doing cyclical carb like the classic Mario D Pascual anabolic diet or metabolic diet they would have you eat low carb for 5 days or 3 days or whatever the protocol is then you start eating carbs until you start gaining water and bloating.

This is neglecting the effects of grains and gut irritation and all that sort of jive. That's just on the insulin mediated inflammation, aldosterone kind of gig and then if you throw in gut irritation then yeah you could very very quickly have an up regulation of inflammation from bad food and high carbohydrate or a down regulation because of better food and lower carbohydrates.

So it totally makes sense and it's the thing again where like if you know that you've got GI issues I just - man - when you know you

have GI issues related to eating certain foods we know that gluten is related to Non Hodgkin's Lymphoma, pancreatitis, pancreatic cancer - all kinds of things, all kinds of nasties.

Come on Elaine. We've got to hang together in Reno. Don't go off the rails. I'll take you out to a Taco's del Rey and we'll get a big seafood platter and forego the junk food.

Greg Everett: There you go. I've seen that places that - what is it? The Chicken Soup thing that it has a whole or a half chicken in it.

Robb Wolf: Yeah the chicken is still running around sometimes. It's amazing.

Greg Everett: Yeah. All right. This one's gonna be tough. So I apologize in advance. Celiac DNA testing. Robert says mister Wolf - how very polite.

I want to thank you for taking the time to read this and for all you've done in the Paleo world. I've enjoyed listening to your podcast, read your book and had been a fan ever since I first heard you speak during one of the first CrossFit radio interviews a few years ago.

Before the CrossFit cult became the people's temple part two. Oh man CrossFit radio. Remember that?

Robb Wolf: The good old days, the salad years.

Greg Everett: My question concerns my wife. She's 26 years old and has had GI issues since birth. She's had a colonoscopy at 16 and both an endoscopy and colonoscopy two years ago with negative biopsy results for celiac disease. She was found to have mild gastritis and treated for reflux with Nexium.

She continued to have GI distress presenting as alternating bouts of diarrhea and constipation, gas and pain along with anxiety and depression episodes. Of course the gluten hater I am suggest that she change her diet when we met three years ago but it wasn't until recently she got off gluten with dramatic improvement in all symptoms.

When she had her recent upper and lower GI procedures her lab tests were only a CBC and LFTs. No test for serum antibodies such

as antitissue transglutaminase, antibodies, anti gliadin, antibodies or D amidated gelatine peptide antibodies were done.

A typical GI doc relying on biopsy results only. I'm sure you've heard this before. Her primary doc has agreed to a celiac panel serum but I'm concerned that she may not show positive antibodies since she has been gluten free for a few months.

We're considering DNA testing for HLA DQ, stereotyping to try to confirm what we suspect is a gluten intolerance or full blown celiac without visible villis atrophy. Are you familiar with the DQ2 and DQ alleles as markers for potential development for celiac disease? And do you recommend this type of testing.

I realize that if one has a genetic potential for development that it is not the same as diagnosis and even with a positive DQ2 or DQ8 she may not have celiac disease but a remarkable improvement let me to believe that she is gluten intolerant.

Our concern is for our children and their potential for development of gluten intolerance/celiac. I understand you're a very busy person and please don't feel any obligation for a response. Also congrats on becoming a father recently. There really isn't nothing like having children to make one understand unconditional love.

Thanks for everything.

**[0:40:13]**

Robb Wolf:

That was a marathon just in the telling right there.

So Xyrex lab tests some pretty good -seemingly like I still banking on their promotional material claiming the ability to find gluten intolerance and celiac diagnosis much more keenly than the standard test that you get from your GI doc.

I am familiar with the DQ2 and the DQ8 alleles and I think what you find is via the VRCA1 and VRCA2 genotypes which relate to breast cancer and not everybody with those genotypes get breast cancer and not everybody with breast cancer has those genotypes and so it's kind of helpful but it's much more compelling to just simply understand that it's very very rare that I find somebody who does not improve by removing gluten from their diet.

And it sounds like your wife has done that. The standard blood work that your doc is proposing to do if she hasn't been eating gluten she's not gonna react because probably the titer of the antibodies has rubbed off. Then they recommend that you eat gluten so that you can get good and sick to be able to prove what you already know experientially.

So I know that kids are involved and all that sort of jive. The way that we're gonna navigate this - I'm thinking 50 different things here. I have -

Greg Everett: Use your powers Robbie -

Robb Wolf: I have never come up positive on a biopsy or on a standard blood work for celiac but I am explosive when reactive to gluten. Maybe it's not exactly celiac although I end up having neurological effects and everything so it seems more than just what they're categorizing as gluten intolerance versus the actual celiac disease and what not.

So you could go for it. If she pops up positive on these alleles then you will have more leverage and you will feel more comfortable pulling this stuff out. You might feel like you're a little more justified in trying to forego your kids exposure to gluten.

I don't know. Again we just see so many people benefit so much from taking this approach that I'm at a loss. Just simply removing this stuff and seeing how you look, feel and perform seems to be so much more effective than just relying on the blood work but again Xyrex Labs is out there.

For whatever reason they've chosen not to create a direct to customer, direct to consumer interface I'd really try to do it. They are a little bit hoity toity about the whole thing and only want to go to practitioners but then they're as slow as molasses, getting practitioners educated so you can't actually find anybody to dispense their fucking test.

Greg Everett: Good plan.

Robb Wolf: It's like the best thing in the world and you can't get to it. So I don't know what to tell you on that other than maybe pinging Xyrex and telling them to get a little bit of clue and make this

thing more direct to consumer. So that's what I got on that. Greg any thoughts?

Greg Everett:

Are you serious? I have thoughts but they would be absolutely unrelated and unhelpful. Okay.

Adam says - since this starts off with such an odd sentence I guess I should read the subject line. G6PD deficiency. Adam says also known as payvism. I have G6PD deficiency to some degree at least enough for the US military to detect it while I was in bootcamp. Is this a mutation? How would you modify the Paleo diet if at all.

I read somewhere that it interferes with the catabolism of carbs. Is this true? Could you should some light on the subject? Thanks. Just finished week one of your diet plan.

Robb Wolf:

Nice. So the G6PD deficiency is glucose 6 phosphate dehydrogenase deficiency and it's a genetic disease which is related to the pentos phosphate pathway and this ends up impacting erythrocytes and it's another one of these heterozygous advantages.

Stephan Guyenet had a great paper where he talked about the various advantages that are developed in our genome largely dealing with infectious disease.

**[0:45:00]**

There are different conditions like sickle-cell anemia where a few are homozygous for sickle-cell anemia, the way that your red blood cells change in shape make you very resistant to malaria but they tend to make you very dead also because they tend to get jammed into the small arterials and you get clotting and have a lot of problems. You have some hemolysis type of problems, too.

So if you are a heterozygote, if you only have one of the genetic copies for this condition, for sickle-cell anemia, then you have a little bit of problems with the way that your red blood cells fold and stuff like that but you are reasonably well protected against malaria, so there's kind of a trade-off there.

And these conditions are endemic in the Middle East and Africa and seemed to have been developed relatively recently in history when we started developing agriculture and blocking off water

ways and creating more tasty habitat for mosquitoes and this condition, the glucose 6 phosphate dehydrogenase deficiency is another one of these adaptations which helps people to deal with malaria.

So depending on where you are on the spectrum, this can be more or less severe. So you could get some genetic testing to delineate what the story is with that. I don't know that high carb or low carb is really gonna be that big of a deal, given that this is actually related to the pentose phosphate pathway. It's interesting you might benefit from a little supplementation with ribose, which is a pentose sugar, Carlson labs and some other places manufacture that.

I will do a little poking around just to run that by like a genetic council or what not but that could actually be a way to circumvent that whole process. So, that's what it is, I don't know that being low carb would necessarily be advantageous, it might be but definitely ribose could be of benefit and this overall means that if you and I went into malarial infested swamps, I would probably die and Adam would probably not.

[cross-talk]

Greg Everett: Alright, ready for this last one?

Robb Wolf: Oh man, let's wrap it up. Wrap it up with a circus!

Greg Everett: Exactly. Max says, hey Robb and Greg. I'm auditioning for circus school in February. I'm trying to figure out how I want to train to prepare for it. The stuff that I do involves some intermediate level tumbling and a lot of partner acrobatics. I'm a base and partner acro so I've got to be strong and stable in order to effectively support and manipulate the person I'm holding up.

Our training has mostly been from Coach Summer's book but I just bought Greg's book because I wanna add in some o lifting to get that ridiculous amount of power and speed I see these guys having.

Now to my question: the circus schools to which I'm applying look at strength in two ways. One, max chins, max push ups no more than 35. That's weird. Max leg lifts, toes to the bar. And two, physique. I would like to get my chins and leg lifts up to into the

twenties by February, my push ups are fine, and I'd like to drop a couple body fat percentage points by then.

How would you suggest that I train leading up to this? I'm five foot ten, 20 years old, 165 pounds, 10 percent body fat and been paleo for one and a half years. I do cheerleading at the collegiate level in addition to the gymnastics body stuff. I don't wanna sacrifice too much strength to get this endurance and I don't wanna sacrifice too much performance to get lean.

I went ketogenic for three weeks a few months ago and I looked pretty ripped but my performance wasn't as good. I know I'm trying to have my cake and eat it too but any thoughts you guys would have would be awesome. You guys are the most knowledgeable goofs on any podcast I listen to so thanks for all the info.

Robb Wolf: Well, we do what we can. We try to be the most knowledgeable goofs that we possible can aspire to.

Greg Everett: I don't really have to try that hard to be a goof.

[cross-talk]

Robb Wolf: So we're talking about basically chins and leg lifts here, it sounds like because he's got the push ups kinda squared away. I would just do grease to groove on this stuff which Pavo always had a cool formula which was say, your max pull up is 20 pull ups, try to do sets of around 10 to about half your max as much as you can throughout the day and just build far human and retest and I think that you can build up to some pretty ridiculously high strength endurance numbers by doing that.

When I was doing a lot of stuff like this, I was at a 28 non-kipped, pull up not a chin and clavicle touching each time, which is pretty solid.

[cross-talk]

Robb Wolf: Well, when in Rome, as it were.

**[0:50:00]**

Robb Wolf:

So I think doing grease to groove on chins throughout the day and just kind of every third day, cut your volume in half on that. Maybe two days a week do a strength oriented chin kind of deal. Maybe you do practice on one-armed chins, maybe you do some weighted pull ups, maybe do some weighted chins, somewhere in the three rep range, real heavy, long rest periods so that's very, very different from what you're doing on the strength endurance side.

Then there was a recent article on ketogenic diets and with McGinnis, and they found that after a 6-week adaptation period, their performance was just good as a non-ketogenic diet and their body comp was better. So, again, depending on, you need to allow some time for adaptation and then depending on the activity that you do.

Rhythmic gymnastics doesn't have quite the same kind of high end power demands that you would see in, say, a floor routine kind of gig, which I would find hard to imagine that you wouldn't see a power drop off for standard gymnastics passes and stuff like that because a floor routine ends up being reasonably bit long and a good amount of volume work but rhythmic gymnastics is a little bit different.

So depending on what you're doing for the circus, I could see the ketogenic deal being a way to drive the boat. Obviously, ketosis is not the only way to lose body fat.

Welborn has bandied this around 1 gram of protein per pound of body weight set calories at about 15 to 16 calories per pound of body weight and then add carbs and fat to meet your calorie allotment based on your training needs. So if you're doing a lot of volume of training, then you have a bit more carbs, and if you have less volume of training then you have less.

But the fundamental deal there is that you've got adequate protein to prevent catabolism. You might even think about putting 4 doses of 10 grams each aliquot of branch chain amino acids so like 40 grams a day total of branch chain amino acids into that mix to prevent any type of catabolism or try to minimize it and you're just in a mild calorie deficit.

And you do your regular training, try to get big and strong, while losing a little bit of body fat and leaning out. And if you do that and you've got a very flat trajectory on this, you're not trying to

lose 10 pounds in two weeks, then you can chip away of this and should make some pretty good progress.

Martin Berkhan of Leangains has kinda made this comment that he knows that people are on a sufficiently modest calorie restriction if they are able to begin losing body weight, put the maxes that they are playing with are maintained. We're assuming that we are not really losing much, if any, muscle mass. And that seems like a pretty reasonable idea.

Greg Everett: I like it.

Robb Wolf: Cool.

Greg Everett: I'm a big fan. The one I think you might look into is Ethan Reeve's density training for the pull ups and the hanging leg raises. Good stuff, this is actually like a grease to groove thing but with more of a plan for progression.

Robb Wolf: And you know, I would, even if you're not being tested obviously on the twinkie hugs or reverse hypers or whatever, I would do equal volume of glute-hand back extensions or twinkie hugs just to balance that out. You do not want to become completely so as, hip flexer dominant dude, like you can develop some problems with that. So I would do equal volume of back extensions and it will give you big gnarly spinal rectors also.

Greg Everett: Indeed. I like it. Is that it? Are we done?

Robb Wolf: I guess that's it.

Greg Everett: There's just nothing left to say, is there?

Robb Wolf: Well, I'm cool with that.

Greg Everett: We talked about anything from circus school to motion sickness, to shooting people from helicopters, I mean, that's pretty incredible.

Robb Wolf: We kind of covered it all.

Greg Everett: Yeah, and what we didn't cover I guess we'll get next time so there you go.

Robb Wolf: Alright, G. Well, have a good weekend. I'll see folks at the ancestral health symposium in Boston and we'll talk to you all soon.

Greg Everett: See ya.

Robb Wolf: Alright, later man.

**[0:54:57] End of audio**