

## Paleo Solution - 158

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[Music]

Robb Wolf: Hey, folks. Robb Wolf here. Greg Everett in the house. This is episode 158 of the Paleo Solution podcast. We're operating on probably about two of six cylinders. Wouldn't you say?

Greg Everett: Approximately yeah.

Robb Wolf: Okay. Cool. Cool.

Greg Everett: We each represent one cylinder.

Robb Wolf: One cylinder of an otherwise puny six cylinder engine.

Greg Everett: So together we will still make a horribly underpowered engine.

Robb Wolf: Perfect.

Greg Everett: Yeah.

Robb Wolf: It's kind of an analogy of my life. So I like it.

Greg Everett: Ah goodness.

Robb Wolf: What's new? What's exciting?

Greg Everett: The same stuff I've said the last couple of podcasts. Takano's book will be coming out December 1<sup>st</sup>. We are preselling that on Amazon. It is called Weightlifting Programming: A Winning Coach's Guide. That's awesome. We've got our program ebook out. It's only \$10 in our store for 20 complete training cycles and then my Weightlifting for Sports book is now available as an ebook.

Robb Wolf: Sweet.

Greg Everett: All of who just humped our knee for the last year about that.

Robb Wolf: I like it. What do I have going on? Evolve Foods show sponsor, [evolvefoods.com](http://evolvefoods.com). Wolf pack 12 I think will still get you a discount or that might have expired. I'm not sure but Evolve Foods. We've got all kinds of snackie goodness and we have some MRE replacements in the pipeline and they're going to be pretty pretty righteous. We're finalizing all of that stuff probably about a month, a month and a half before that stuff is out.

Greg Everett: I heard you've got quite a few words written on the new book.

Robb Wolf: I've got about 17,000 words written on the book and other than the outline and a few little bullet points in the different chapters I'm only about two chapters in.

Greg Everett: Oh boy.

Robb Wolf: So it's looking like it could be a sizable tome. Whether or not any of it is worth reading or relevant or correct at all we'll see.

Greg Everett: Those are the kind of details that sort of work themselves out over time.

Robb Wolf: That's true. Veracity and utility - yes.

Greg Everett: No biggie.

Robb Wolf: So is that it? Is that all we have? Should we even do this thing? Should we just act like we did a podcast and then wrap it up and people are like "Wait. Did I fell asleep? Did they do it?"

[Cross-talk]

Greg Everett: We should. We should just see how many people actually notice. All these people pretending to listen to our podcast.

Robb Wolf: They're like "I enjoyed that episode 158 the most."

Greg Everett: "I can't quite put my finger on it."

Robb Wolf: "Time flew by so fast. It was amazing."

Greg Everett: Yes.

Robb Wolf: Okay.

Greg Everett: Well let's cast this pod onto to the eagerly awaiting ears of our faithful six listeners.

Robb Wolf: Indeed.

Greg Everett: This one is called once a fatty, always a fatty? Callum says hi Robb and Greg. I was reading an article on Cracked, a humor website, but still, which posited that it's impossible for a fat person to lose weight and keep it off permanently. The article emphatically begins with the number of people who go from fat to thin, and stay there, statistically rounds down to zero.

Their reasoning is thus as that article explains, the person who is at 175 pounds after a huge weight loss now has a completely different physical makeup from the person who is naturally 175. Exercise benefits them less, calories are more readily stored as fat, impulse to eat occurs far, far more often. The formerly fat person can exercise ten times the willpower of the never-fat guy, and still wind up fat again.

The impulses are simply more frequent, and stronger, and the physical consequences of giving in are more severe. The people who successfully do it are the ones who become psychologically obsessive about it, like that weird guy who built an Eiffel Tower out of toothpicks.

As a former fatty myself who lost 40 kilos after a lifetime of obesity and who has had minor weight fluctuations ever since - I hover between 89 and 94kg for 3 years - I must ask your opinion on this matter. In your experience, is it possible for a fat person to completely overhaul their life and become fit and ripped permanently?

If it helps, I eat Paleo, but when I cheat it's a binge to end all binges. At least I manage to realign myself and go back to strict Paleo during the guilt-ridden aftermath. So yeah. Opinions? Cracked does cite some sources so feel free to peruse them and there's a link to the article.

Robb Wolf: I used to read both Cracked and Mad Magazine as a kid. It is genius.

Greg Everett: It's pretty amazing. I remember Mad Magazine.

Robb Wolf: It is amazing stuff.

Greg Everett: Do you know the guy Alfred E. Neuman won American Idol the year before last?

Robb Wolf: No. Really?

Greg Everett: I swear to God. Look it up. Scott McCreery or something like that looks exactly like Alfred E. Neuman.

**[0:05:00]**

Robb Wolf: Wow.

Greg Everett: It's not a stretch at all. It's Alfred E. Neuman.

Robb Wolf: Like the gap in the teeth and -

Greg Everett: And not a whole like some country music super star. It's pretty incredible.

Robb Wolf: I mean who he's got to compete against like Willie Nelson who's almost dead and Johnny Cash who is dead?

Greg Everett: Oh boy. Johnny Cash isn't dead. You take that back.

Robb Wolf: I wish. I wish. So how do I tackle this?

Greg Everett: I don't know.

Robb Wolf: As with almost everything it depends. We've seen people who are significantly over weight get down to super lean levels and they're able to motor for the rest of their life for a significant period of time and keep the weight off, stay lean, all that sort of jive.

And then there are other folks that there does seem to be some sort of legitimate kind of genetic memory or this inertia where they just tend to stay on the heavier side. It's easier for them to gain weight than what you would normally expect. I was talking to Chris Kresser about this.

I'll use myself as an example. I always ran around pretty lean. I could get Skeletor lean really really easily and then during a

period of undoubtedly massive stress probably low testosterone levels, really a poor time to choose to do this I did this masking deal where I was doing a half gallon of goat's milk and eating 2 or 3 cans of almond butter and everything and I gained 20 lbs and it was mainly fat.

Ever since then I've gotten down reasonably lean now but I'm not as lean as what I used to be. I have to actually work at it now to get lean whereas before if I just cut my carbs a little bit I would lean out in matter of a couple of days and so I think I probably legitimately did some sort of hormonal damage on myself and it's taken a number of years and a lot of tinkering to get things back down to a reasonable base line again.

I think some people could be quite overweight, they could lean out, they could get their metabolism squared away, everything's gonna be cool and other people it may be - I hate saying impossible but it's either so difficult that the effort starts becoming onerous and not really worth the return on investment or they're gonna have to get super jiggy like a ton of pharmaceuticals, protein sparing modified fast, some crazy difficult stuff to be able to get down to a pretty lean level and the interesting thing with that is that I think that with a whole lot of effort in that direction that you can force that set point down to a leaner lower level but again it's gonna be really tough.

So it's probably an incredibly unsatisfying answer because it's not a binary right-wrong, yes-no gig. It's kind of fuzzy and depends but that's my experience.

Greg Everett:

Would you say generally though that if someone is able to drop weight and maintain that lower weight for a pretty significant period of time - well I should rephrase that - that the longer they maintain that lower weight the easier it will become to maintain that?

Robb Wolf:

Yeah. Yeah. And it definitely that seems to be the case. I was reading some stuff over at Martin Berkhan's website and he was talking about that kind of set point deal and that he's noticed that if he really knuckles down for a period of time, gets really really lean and then is able to maintain that for a period of time and then when he really relaxes things a bit his new set point is still lower than what the previous point was.

So I think that -

Greg Everett: There's hope.

Robb Wolf: There's hope but for some people it's just going to be more challenging just like for some folks it's way more challenging to add muscle mass. For some people it's more challenging to be endurance kind of wired up and what not.

Greg Everett: All right.

Let's talk about the facts on flax.

What's deal on flax seed consumption?

Jeff says allow me to start with the obligatory ego stroking of the two fine individuals that have helped out countless individuals in their quests to navigate the world of bad disinformation.

Who's that?

Robb Wolf: I don't know. I want to talk to these guys.

Greg Everett: The information that you guys provide really has changed my life immensely and I am certain I am not the only one. Now on to the topic.

I have always felt sub-par when it comes to digestive health. I just have never found it easy, to put it lightly, to maintain regularity and it has been a long fought battle. This is the story of my life.

In this long fought battle I have tried it all: probiotics, supplements and fermented foods, prebiotics, digestive enzymes, natural fiber, processed fiber, short term use of herbal laxatives, hydro-colonic therapy, etc. Some of these "solutions" have worked better than others, but in the end, they all seem to be a short term fix at best.

**[0:10:10]**

I have been working with a nutritionist on this issue. She suggested I try out flax-seed tea. The recipe she provided required a tbsp of organic flax seeds steeped in hot boiling water and covered for 6-8 hours, moved to the fridge for an additional

6-8 hours, and then consumed. I was doing this twice a day and it appears to have had some benefit. However, being the all-or-nothing type personality I am, I strive to optimize my diet as much as possible.

Being a loyal listener and reader I always had some reservations on flax but after doing some research flax seems to be one of those items that sits in the gray zone. I have heard you voice your concern about the associated levels of linolenic acid which as we know is -

I can't read today.

Which as we know is fragile and is prone -

Robb Wolf: We're on two cylinders man.

Greg Everett: - to oxidization.

I'm like reading six inches ahead.

Robb Wolf: Damn it Jim. We're on two cylinders.

Greg Everett: Oh boy.

On the other hand, Charles Poliquin has spoken positively about the lignans contained in flax which can bind to estrogen in the digestive tract so that it will be removed through and excreted from the body which is another goal for me but that is another show.

So here come the questions. One, does this preparation of flax tea negate or exasperate the ill effects of ALA? Two, how does this preparation affect the potential beneficial properties of lignans? Three, do you have other suggestions to get both worlds?

Thanks again for all that you guys do.

Robb Wolf: Holy smokes.

Greg Everett: I've struggled on questions before but that one just pretty much just owned me.

Robb Wolf: Maybe it was all the poop-related references. It's kind of disturbing. I don't know.

Greg Everett: Oh boy. I'm pretty sure I just developed ADAD, just this very moment.

Robb Wolf: Add another D in there. Make it a triple D.

Greg Everett: Yes please.

Robb Wolf: So one does the preparation of flax tea negate or exacerbate the ill effects on polyunsaturated fats. I don't really see that being a problem. If you took a pre ground flax seed preparation then that could maybe be problematic because you are increasing the surface area where you could get oxygen in and amongst the poly unsaturated fats. So if you're either leaving the seeds whole or grinding them, putting on the tea that seems fine.

How does this preparation affect the potential beneficial properties of the lignans? I guess it would mainly just extract out the water soluble stuff. In the flax seed you're going to have both fat and water soluble constituents. This is one area where if people were to grind a tbsp of flax seed and they throw it in with their nutty hot cereal which is a phenomenal recipe that you can get from the Performance Menu. I forget which issue but you can track it down.

Greg Everett: I think it's issue number one.

Robb Wolf: It's number one or something. It's one of our oldest recipes but I don't see any problem with that. I honestly did not get in and look at the different lipid versus aqueous soluble constituents of flax seeds for this question which was perhaps dropping the ball but it seemed like an awful lot of work to really do a good job on that.

And I don't really see this being that big of a plus or minus either way if you grind up the flax seeds and shoot them down if you want to. You could do this procedure which seems to be working for you. I'm not sure about the best of both worlds kind of gig.

My problem historically with the flax has been the consumption of the oil which is poorly converted with regards to the omega 3, the chain elongation of the omega 3s. If you're vegan and are going to



die from the omega 3 deficiency then that's one thing but otherwise I would go obviously for fish oil and stuff like that.

But the flax seed does seem to have some kind of cool properties like was alluded with regards to anti estrogen or estrogen removal of fat. It does seem to have some beneficial properties with digestion. I'd never really had problem with flax seed, the usage of flax seeds because the amount of omega 3s that you get from that are small and if you just handle them properly like grind them fresh, use them immediately, don't cook with the stuff then you should be good to go.

Greg Everett: Cool. All right.

Stuart says hi Robb and Greg. I was wondering what your thoughts were on colonoscopies and, in particular, the effect of the cleansing prep on the gut flora? Does the prep leave enough flora in place to repopulate after the procedure? I have a family history of colon cancer. I'm in my mid-40s and have been getting colonoscopies every couple of years as recommend by my GI doc, but now that I've made the switch to paleo and am aware of the importance of a healthy gut, I'm hesitant to go through this again and the procedure is so unpleasant, that it wouldn't be bad to pass on it.

**[0:15:02]**

Robb Wolf: So a couple of things here. He mentions he's 40. Was that right? He's in his mid-40s. So usually they don't even start colonoscopies screening until you're late 50s, early 60s. The fact that there's a family history here I can maybe see an argument for maybe rolling that earlier but then even within that they don't recommend follow up colonoscopies for a decade.

I actually happen to be writing about colonoscopies in the new book comparing those with Lasix surgery basically from one eye to the other eye I guess is one of the possible titles of that chapter, from the brown eye to the brown eye or something like that.

Greg Everett: Oh Robert.

Robb Wolf: So that's a thing and you're looking at in my opinion and my understanding of the standard protocol on the colonoscopies one it seems like they're looking a little early. Two, it seems like even if

you were under a protocol that the standard of care is once a decade basically. So that's a piece.

Another piece to this - we know for a fact that breast, colon, prostate cancers are heavily influenced from insulin load, from hyperinsulinemia, glycemic load etcetera so if you're eating something and can do a Paleo type diet like that would really alleviate a lot of my concern about all these stuff. Obviously I'm not sitting there with the same family history that you are so it's easy for me to say that but just as an anxiety kind of thing I would just keep that in mind that you're probably spinning the roulette wheel on a very very different way than what previous family members have done.

It's interesting like when they do a fecal transplant they actually - I forget if they use an antibiotic pre-emptively in that whole process but they definitely use a standard kind of like Roto-Rooter Drain-O kind of preparation that they would use for a colonoscopy and it definitely moves all the stuff out of there. What I forget is whether or not they used an antibiotic preparation first.

Basically when they do the fecal occult transplant or whatever they are trying to strife on their own intestines, remove every last critter that they can then they're taking the theoretically healthy fecal sample and then implanting it and doing all that fun stuff. So it definitely is going to significantly impact the amount of gut bacteria that you have.

I don't know if it completely removes it without the use of some antibiotics also. It's interesting. There was a guy that - I'm totally blanking on his name but he ended up getting a PCR, polymerase chain reaction basically analysis of the DNA of his gut flora and he did this everyday for a year. He ended up going on antibiotics once. He ended up getting food poisoning once and to each one of these events completely altered his gut flora and we still don't know whether or not that is a potential pathological situation.

We do know that certain obese individuals have a different gut flora than lean metabolically healthy individuals so that we do know that there's some sort of cause and effect on this thing. It's just we're still not at a point where we could say "Okay. Antibiotic use absolutely predisposes you towards future problems and what not." Like you need to do some sort of repopulation protocol.

It's sounding like just simply taking oral probiotics may not be enough to really get you back to square one, that beginning spot again like a really healthy gut flora and that the fecal transplant maybe the way that you need to go which is kind of crazy idea but did I get everything on this?

Greg Everett: I think so.

Robb Wolf: Again not a super solid I guess answer I guess on this stuff. There are some variables certainly to consider in this whole story and just some information that we're still lacking and I guess for Steward, if you could follow up and see if the standard protocol for the colonoscopy is administration of antibiotics before they Roto-Rooter everything out then we would probably be able to make an assumption that a standard colonoscopy procedure would leave some gut bacteria but whether or not -

The thought with that is any type of dramatic change that we experienced whether it's antibiotics, whether it's food poisoning that dramatically changes the flora apparently forever after that but again whether that is clinically significant we just don't know, just don't know.

**[0:20:16]**

Greg Everett: Some things you can't know Rob.

Robb Wolf: Damn it. Can't we just make it up?

Greg Everett: Yes. I do it every time I answer a question on here.

Optimal Strength Building Periodization, speaking of.

Robb Wolf: Right up your ally yeah.

Greg Everett: Heidi says hi Robb and Greg. Thank you for all the time and effort you put in to helping the uninformed public get healthy.

I recently graduated from Queen's University in Kingston with a Bachelor in Physical and Health Education. During my time there, I was educated in proper strength program periodization for athletes playing specific sports and this is how I have designed my own strength training programs.

I am now looking to get stronger and build muscle mass and am not sure how to properly periodize my program considering I do not play any sports anymore and basically just want to gain muscle mass and get some definition. My ultimate goal is to eventually train for power lifting competitions if I can get over my past overtraining and associated injuries.

I have been looking around online. T-Nation mostly and have some strength training book. Ian King's Book of Muscle and Yuri's Super Training. I have found some good programs that are helping me get stronger, but I was wondering if there are any books or publications that you could direct me towards that will help me understand the periodization for strength programs for bodybuilding or power lifting programs.

Thanks in advance for the advice.

Robb Wolf: You want to tackle this one?

Greg Everett: Man. I'm not much of a book guy but let's see Science and Practice of Strength Training, the Zatsiorsky book is a fairly quick and easy one.

Robb Wolf: And in that doesn't he made an optimum hypertrophy? Doesn't he recommend a conjugate method where you've got a dynamic effort or repetition effort, a max effort that you rotate -

[Cross-talk]

Greg Everett: Oh you mean kind of like weight lifting? Yeah. I've seen though it's been 10 years since I read that book so honestly I don't remember specifics. I don't really read books. I just kind of put them under my head while I nap in the hope that some of it kind of seeps in. So I can't give you specific citations but I would definitely look into that one.

If you could slob through Super Training this is going to be a relief for you. This book is so much easier to get through and I think as amazing as Super Training is I think that rabbit hole is so deep that I think it's hard to come out of the other end with a lot of useful tools in your hand without having it to just kind of go back piece and piece and use it more as a reference than anything else.

Man, about periodization specifically I just can't think of anything other than Tudor Bompa's book which I can't say is necessarily going to help you that much and having only skimmed it really myself I don't feel comfortable really commenting more than that but if you're looking for power lifting stuff specifically I think there's a lot more out on the interwebs than you're going to find in books right now.

Robb Wolf: Back in my old power lifting days what I started off with was a -

Greg Everett: Fred Hatfield - that's the book. I was trying to think of this whole time.

Robb Wolf: Power: A Scientific approach, Body Building: A Scientific Approach, Power Lifting: A Scientific Approach - they're really good books and he had this early understanding of the need for some rate of force development work. He called it the check mark approach. Basically trying to move weights quickly whether it was a light weight or a heavy weight and he wasn't getting into the bands and chains and trying to change the force curve and all that.

So for a raw powerlifter scenario some of the old linear periodization where he started off and say you're doing 4 sets of 8 and you carried that over a couple of weeks and then maybe 5 sets of 6 and then 8 sets of 4 and then 10 sets of 2.

You're keeping the volume approximately the same, maybe the volume tapers down but over the course of time you're able to load heavier and heavier because obviously you can move a much heavier weight for a set of 2 than you can for a set of 8 and then you would run that whole periodization as far you could and that might be 3 months worth of forward progress and then you add some unloading periods in that.

Maybe once every three weeks for which you do a half volume, half intensity kind of gig and then jump back into the forward progress but I think any of this stuff so long as you've got some sort of a plan, some sort of forward progress that you were going with like I ended up on a really basic protocol like that. I ended up getting up to squatting and dead lifting almost 600 lbs, benching right around 350 which my bench was pretty pathetic but I've got long arms.

[0:25:15]

That's my lot in life to suffer but I think that as a basic protocol that's a not bad way to go and then using higher reps on accessory movement like curls and tricep extensions and tilt work and all the rest of that stuff but keeping some sort of a linear progression in that and you can get pretty damn strong with that and then at some point you have to get in and start doing some different methodology to go beyond that.

Both myself and I've seen other people and historically people have gotten pretty damn strong on that protocol. You might not be world championship strong on that but that's funny. There have been people like Ed Cone, god who was the guy - he was on the World's Strongest Men - Bill Kazmaier - those dudes did essentially kind of body building and boy a whole lot of drugs and a linear program with that and add some pretty good genetics but this is one of the things like I really like the west side barbell stuff but it seems like a ton of gizmos and the bands and chains and all that just kind of freak me out.

It seems really really complex and unless you're dealing with somebody who's a very very advanced athlete.

Greg Everett:

I think you just said specifically that you're not periodizing for any particular sport maybe power lifting in the future. Really what you're looking to do is get bigger and sounds like get a little leaner since you're talking about definition so those should be your two periods.

Focus on putting on the size and strength first and then getting a little leaner. Like I said books, there are some good books out there. All of Fred Hatfield's books I think are really good places to start and the rest of it I think is largely going to be experimentation and just talking to people who actually do it day to day.

Robb Wolf:

I like it.

Greg Everett:

All right.

Dead lift or not to dead lift? That is the question. Ian says Rob, Greg, question is about dead lifts. I have heard a number of folks say not to dead lift more than once a week. Martin Berkhan

seems to point out that they are a great exercise. In your opinions what is a reasonable amount of time to do the movement and recover? Is it a movement you would recommend for a good strength and conditioning program?

I would say my strength is about intermediate right now can squat 1.6 times body weight, dead lift almost twice body weight, about 15 dead hang pull ups without stopping, et cetera. At this point I work out in my own home garage gym. I did o lifting with a coach for about 6 months and now do a mix of o lifting and crossfit type of workouts.

Goals are to get stronger and stay fit. 39 years old, 5 ft 8 160 lbs about 11 percent body fat. Sleep 8-9 hours a night. Thanks for all your great work. P.S. Rob I hope to see you at the next Ancestral Health Symposium in Austin next year.

Robb Wolf:

Heck yeah man. We'll get our drink on down there. I think it's all kind of a volume-intensity trade off deal. Like you've got power to the people, Pavel having you deadlift five times a week, maybe even more than that but you're doing super low volume like he's tackling the dead lift as a skill acquisition kind of gig.

So you're getting super wired up neurologically to be very very efficient at the movement and we see similar stuff in Olympic weightlifting where you may not see a ton of volume on a given day but you see this volume stretched out over the week so that you're getting multiple exposures and so I think that for the more neurological element of the lift then that's probably important.

If you're using it more like a body building type deal and you're doing 5 sets of 5, 4 sets of 8 or something like that, a good amount of volume, a good amount of tear down on the muscles and what not then you may only be able to do it once a week, once every 10 days. So it really depends on how you tackle the dead lift and it's interesting for me I've noticed that if I'm back squatting consistently and heavy, if I'm power cleaning or cleaning consistently and heavy my dead lift is fine.

I can maintain like when I just power lifting and I was dead lifting quite consistently I can be right on top of that like within 5% of that, maybe even closer of a really good dead lift pull. If I'm just lifting heavy on the back squat doing some back extensions, some

ab work and then working really really heavy power cleans in particular.

[0:30:15]

Greg Everett:

I would agree with all that for sure. It's like any exercise. Like Robb said the volume and the intensity is really going to dictate how much of an impact it has on you and granted a dead lift or a squat has the potential to have a lot more impact than something like a curl but I think that much is obvious. You don't need that pointed out to you.

I do think people can over do it on dead lifts sometimes. They get a little carried away but only in the sense that they're putting so much more time and effort into dead lifting relative to doing things like squats or Olympic lift variations and like Robb said I think you can get a lot out of the dead lift with very little exposure to it as long as you're hitting these other things which you can be doing very frequently.

I'm in the same boat as Robb. I used to dead lift a long time ago. Never anything very impressive but once I stopped dead lifting and started focusing more on weight lifting the couple of times that I've gotten wild hair at my ass and pulled a heavy dead lift I've done far better than I ever had when I was dead lifting all the time.

So to me it's more of a test of strength and a strength builder at this point and I think if you have a limited amount of time there are better things to be putting that time into but if you're going really really hard, really heavy yeah once a week max.

Robb Wolf:

I will throw this out there. When I was doing the crossfit stuff I could motor through most things and recover okay and when I hit those heavy high rep dead lift workouts those things would annihilate me for a month. So if you're playing with crossfit stuff I would just keep that mind. So a lot of the things that I started doing like where a dead lift workout would pop up I would end up doing a power clean instead and obviously a much lighter weight but I would tweak it that way.

But that was something that I discovered like a really heavy more so worse than the Diane workout, like the 21-15-9 dead lift, hand stand push ups. I can still motor through that and not be



completely FUBAR'd from that but I'm trying to think of something. Some of them they came up really nasty like they were 275 for reps or 315 for reps or whatever and oh my god. I could do all of them and usually turn them reasonably good times but the aftermath was a comet strike to the Yucatan. It was like that.

Greg Everett:

Okay.

Ketosis - does it always work? Steph says hi! Please answer this question on the podcast! Smiley face. You guys are awesome and I would really appreciate your help.

My husband has been experimenting with a ketogenic diet for the past three weeks and he is not seeing the expected or desired results. A bit of background: he has been fit and active all his life. He is in the military, and in addition to the regimented PT he has always worked out on his own and been very strong and aerobically fit. He is 5'11 , and his ideal weight for his build extremely muscular is somewhere around 200 lbs.

A few years ago, he suffered a broken ankle while on deployment, and that, combined with some unfortunate family troubles etc lead to about a 40lb weight gain for him. At his heaviest he weighed about 241. Then, a little under 3 years ago, we discovered Paleo and Crossfit and we both jumped in with both feet. He took a little longer than I did to come around to the diet part, but we have been very strict paleo with only the occasional divergence for about the past 2 years.

He lost quite a bit of weight initially, but he can't seem to get the rest of the last stubborn 20lbs or so. Right now he's around 217. Three weeks ago, he began what I would call a strict ketogenic diet. His carb intake has been well under 50g per day, fat intake is high mostly coconut oil and heavy cream and protein intake for his size is pretty low under 100g a day. He's been very diligent with this diet, and monitoring when he's in ketosis, but the expected weight loss has not occurred. In fact, he's gained 3 pounds and an inch around his waist. Not surprisingly, he's getting frustrated and feels at his wits' end.

He seems to come out of ketosis during the night. When he tests in the morning urine strips he's not in ketosis. But then in the afternoon and evening he is in ketosis. Also, he has very low

energy and feels as if he is losing strength. When he tries to work out, he feels exhausted immediately, and his heart rate gets very high very fast. This is decidedly unusual for him.

So, our question what else can we do, adjust or try? I thought that perhaps there are other issues at play namely, sleep and elevated cortisol levels due to stress, anxiety, overtraining etcetera but addressing those is somewhat difficult for him.

Are there other dietary strategies we could or should be implementing? We are reading as broadly and deeply as we can in hopes of increasing our knowledge base, but any help you could provide would be appreciated. Thanks in advance, and keep up the stellar work! P.S. I voted for you on the people's choice thing.

**[0:35:09]**

Robb Wolf: Nice.

Greg Everett: Did that already happened?

Robb Wolf: I think it's still rolling. I don't know what we played out in that. I don't know. We brought down property values and that whole thing for sure but -

Greg Everett: Oh Bush League.

Robb Wolf: Man. Somebody who is under a lot of stress, bad sleep like the military scene - this is one of the ongoing challenges that I face when I do talks for the military, for the special operations scene and all that. Most of the information that pertains to Paleo out in the interwebs relates to a low carb approach and I recommend a low carb approach for a lot of folks for leaning out.

The problem here is that if you are under a lot of stress, if you're trying to maintain a high training volume and stuff like that the ketogenic diet is not going to cut it. You could use this for a punctuated period of time for a variety of situations but as a baseline and particularly when we see this kind of rebound weight gain and increased weight around the mid section we've got bad things going on here.

We've got to look at these different nutritional protocols like a tool - a screw driver, a wrench, a hammer and all of these things are great for affecting the specific goals that we might have except when they're not appropriate and it's sounding like this is a situation where it's definitely not appropriate.

For this situation I would go more the high protein, higher carb, moderate to low fat and even within that if the stress is really a big deal, the sleep is inadequate - I just posted a link on my Facebook page and pumped it out to Twitter there was a really solid study that seemed to indicate that people with sleep debt, who were in a calorie deficient state they ended up losing muscle and not fat and this relative to people with similar protocol but no sleep debt and I forget what the amount of sleep debt was whether it was an hour or two hours or five hours or whatever but the thing is is that we know for a fact that when you are under stress it is hard to lean out like possibly impossible.

Greg Everett: Possibly impossible.

[Cross-talk]

Robb Wolf: For a variety of reasons for this. So my thought here is do what you need to do to get healthy and make performance good which is going to mean more protein, probably at least a gram of protein per pound of body weight, probably somewhere around like a gram and a half to 2 ½ grams of carbs per pound of body weight and then just keep fat pretty moderate. Use that for flavoring, use it to cook the things like when you fry eggs or scramble eggs you need a little bit of fat even a non stick skillet so it doesn't just cook it in the interior.

But that's what I would do. That would be a good protocol for keeping cortisol low, for improving the fuel substrate that you're going to need for being productive and feeling better on your workout and I would just focus on that and we've talked about this a bit but it bears repeating - if you're under a lot of stress my recommended exercise protocol for that is lift weights and do low level cardio and that's it. I wouldn't dip into the glycolytic pathway at all or if you do very transiently and certainly not on a crossfit.com from page 1 kind of frequency.

Greg Everett: So not the 10 mile run and 150 burpee pull ups?

Robb Wolf:

I would probably recommend against that unless you just want to double up on your life insurance and make sure that your wife is hooked up at the end of that all things. So doing the crossfit type protocol is great if you've got all of your ducks in a row and you're not under a ton of stress but I just don't see fantastic things come out of already stress ridden environment and then throwing out that really heavy duty exhausting glycolytic work on top of that.

So I would lift some weights, I would do some low level cardio, maybe get a little bit froggy once a week but even if you did that, say you wanted to do something that was going into glycolytic pathway I would look up some of the Javorek complexes like the barbell and dumbbell complexes and I would tackle that in a progressive manner.

So instead of a randomized manner I would do something like barbell or dumbbell complexes and use essentially the same complex for six week of a shot and then alter things. So it might look like even 15 reps at 65 lbs for dead lift, bent row, hang power clean, press, back squat, good morning and you cycle through that. That thing's going to absolutely smoke you and you could then maybe week by week add 5 lbs to that complex and then after six weeks tweak the complex, put in snatches or walking lunges or something like that.

**[0:40:38]**

But what that's allowing you to do is to acclimate to that stress and hopefully that will help to mitigate the cortisol response. Part of the whole idea with training is that you expose your self to a stress that you adapt to over time. One of the challenges that I see with cross fit the way that it's generally programmed is just the complete randomization is stressful more so than what you would I think normally experience because the thing that you did yesterday is not necessarily preparing you for the thing that you are doing today and then the volume and intensity and competitive element and all that stuff.

Again plusses and minuses with all that jive but I would up the protein, up the carbs, mitigate the fat. You could do some stuff like stick most to carbohydrates in the post workout window if you want to. That's totally legit and then I would lift weights, do a low level cardio, do anything that you can to help mitigate the cortisol. Improve your sleep, maybe use some melatonin, use

some natural calm, some phosphatidylserine before bed time - all of those standard protocols for improving sleep and mitigating stress. I would be all over that.

Greg Everett:

Indeed. Okay. Edmund has a question on veggies. Hey Robb and Greg, I'm a fan of the show and appreciate you throwing your knowledge out there for us to learn from. For the somebody who is not metabolically deranged your schpiel for how to eat post work-out almost always includes, "some safe starch like sweet potato". What is so friggin' special about the sweet potato? I know there is a book out there floating around the paleosphere called Sweet Potato Power but I haven't read it.

I get that white potatoes have a high glycemic index and solanine, so they could be a problem for a significant number of people. But what about carrots, parsnips, rutabegas, turnips, beets, and Jerusalem artichokes? I like sweet potatoes a lot, and I like a little variety in my diet. In my little bit of digging I did on this topic I found that Jerusalem artichokes' primary storage molecule is inulin, a string of fructose molecules, as opposed to starch, a string of glucose molecules.

I could see that being a problem when consumed in quantity. Do you know of any other problems with the list of root veggies I just gave? I have a crap load of them to eat from my garden and I like them a lot. Last question. How safe is squash starch? I am drowning in winter squash. I won't be able to eat all of it before it goes bad, and the things keep for months and months.

Robb Wolf:

I think For post workout carbohydrates white potatoes are great. If you want to kick your heels up and do some white rice knock your self out. Squash is amazing. We've been eating the heck out of acorn squash. We'll cut them in half, pull out the seeds, put the seeds in a pan, we cook those with a little bit of grass fed butter and some salt and they end up tasting kind of like popcorn and pop totally amazing and out of all this thing like the only root vegetable that I would say could be problematic is actually the Jerusalem artichoke.

It has the FODMAP and the inulin which can cause some wacky bacterial overgrowth and they will definitely make you gassy. So out of any of those the one that I would probably be a little bit hesitant about using or just use it sparingly would be the

Jerusalem artichokes. The rest of that stuff is great. I would put in as much variety in that as you can.

I guess the reason why I've gotten hung up on the sweet potatoes is usually it tastes good. It's kind of sweet, people like it. I don't know. It's good and nutritious. Mat Lalonde did a great presentation at AHS and he actually, other than the beta carotene content that's typical in sweet potatoes. He actually was of the opinion that white potatoes might even be more nutritious than the sweet potatoes which was totally surprising to me.

I think it surprised him as well. So again for our metabolically healthy folks use a variety of these root vegetables knock your self out. Go wild on them.

Greg Everett: My lovely wife Aimee definitely made some twice baked potatoes last night with bacon in them. Thank god I am not metabolically deranged.

Robb Wolf: Our breakfast has been - I've been on this kick. We found a really really good apple with smoked bacon from a local butcher shop and so I'll cut up, dice up 4 pieces of that, throw it in a nonstick skillet and then I will really really finely chop a pretty good size red potato, throw that in so that the potato gets crispy with the bacon fat and then obviously the bacon gets crispy and then I'll scramble some eggs into that and it is amazing.

**[0:45:27]**

Greg Everett: Sounds good. Okay. More carbs and brain fog here.

Kevin says hey. I really enjoy your podcasts after finding them about 15 episodes ago. Definitely an interesting mix of nutrition, fitness, and the oddball topic of the day – like consistency of baby poop.

Here's my story and question. I have been eating 95% paleo for about 2 years although I do eat cheese and Greek yogurt. At one point, after reading Gary Taubes' Good Calories Bad Calories, I shifted further away from any sort of carb. I was actually feeling good, but then read Jaminet's Perfect Health Diet. I also listen to Chris Kresser a lot, so I thought I'd add some "safe carbs" back to my diet.

Here is what I was eating, which was borderline ketogenic and it looks like he's got a blog post here. I added back the carbs, such as this dish and it looks like it's some kind of pork shoulder gruel stew.

Robb Wolf: Can't go wrong with a gruel man.

Greg Everett: Oh man what is this like? Charles Dickens' England?

What happens to me now is that I get that tired feeling in mid afternoon, and, for lack of a better term brain fog. More or less a sleepy feeling. I was concerned that I have been going too low carb, so have tried things like eating a banana when that feeling comes over me, but it really doesn't help. Eating a handful of nuts doesn't either. What does help is when I get home, I go on a fast paced walk with my dogs and then do my workout routine which is too pathetic to describe but does seem to lift the fog?

What do you think about this effect of adding say one 2 diameter potato to my lunch having such effect and creating the brain fog? Any suggestions on what sorts of tests I might get? Or, should I just drop the potatoes and go with that?

Thanks a lot.

Robb Wolf: So with this stuff if you're going to be ketogenic it's kind of like you've got to go in ball's deep on this gig. You have to go one way or the other. With that said I have found some really good success with cyclic low carb but even in that scenario it's looked a lot more like what John Berardi recommended with his massive eating protocol which was basically just putting carbs into the post workout window and then ketogenic type meals for the other meals.

But if you're going to be ketogenic then it's pretty important that you eat moderate protein, high fat, low carb and the reason for this is if the body is becoming insulin resistant so that you spare glucose for the brain but we're shifting more metabolism both at the brain level and at the other tissue level to run on ketone bodies.

But then when you throw a chunk of carbs in there and just kind of willy nilly then what we're doing is we're pulling you out of

ketosis but we're not providing a consistent enough source of carbs to really make it go at running the brain on purely on carbs.

So this is where you would probably notice that this brain fog goes away if you're just more consistent with the carbs, if you eat them everyday say post work out everyday or some wacky carbs everyday. I would really recommend Scotty Hagnas' piece The High Carb Paleo Diet where he talked about his experience. I can't remember. Was that episode or issue 59? I forget it but if you do a little -

Greg Everett: You can search the store and it'll come up.

Robb Wolf: I highly recommend that. It's like \$2.50 for that article so I would check that out. So again we've got different tools that we can use for different situations. Ketosis is great for a variety of situations and you can use it transiently throughout the year as kind of a system reset clean out like lipofusion out of cells, get that hormetic stress response but you need to keep in mind that going into ketosis there's usually some brain fog, going out of ketosis there might be a little bit brain fog. So that's just going to be something that's inherent in shifting back and forth from these different fuel substrates.

Depending on what your situation is and this has been something that - I've got to admit - it's been a little bit tough for me because I was totally the low carb nut case guy because it was so beneficial to me but I've had to adapt with the times and follow the research and follow the feedback that we get from folks and super low carb just may not cut it for a lot of folks particularly if you're active, particularly if you're inherently already insulin sensitive.

**[0:50:10]**

At the end of the day I think that if you handle carbs reasonably well it just opens up such an amazing variety of foods so that you're not so pedantic with your eating. You get a little bit more variety, the ability to kick your heels up a little bit more like the potato scramble and potato hash or whatever that I made for breakfast today.

Greg Everett: All right final question on stuttering. Todd says hi. Just a quick one gentlemen. What are your thoughts on stuttering i.e causes, fixes?



Could be food-related in anyway? It seems to be a bit of a mystery. When you search through Google all you get are peanuts. I got nothing against peanuts but I want answers. It's hard to believe that no one has come close to working out what may cause people to stutter. Is it neurological, stress or a chemical imbalance? Cheers boys, keep chugging along. Your podcast is radical. I'm bringing it back. Cya.

But he managed to punctuate that sentence that but it's just letters.

Robb Wolf:

It's wackily.

I forget - I was in an email thread with Loren Cordain, Pedro Bastos, Maelan Fontes, and we tracked down some stuff that seemed to indicate that stuttering might have some gluten intolerance pieces to it like there might be a little bit of an autoimmune piece to it. They're also interestingly since we were just talking about ketosis there might be some glucose metabolism issues with some folks too.

This is completely like 30,000 foot observational, not a lot of mechanism to support the whole thing but we've had a lot of people comment that eating Paleo has definitely helped with their stuttering and actually Chris Squatchy who does a fantastic job triaging all of the podcast questions, he actually commented when he put this one together that he used to have some stuttering which has improved just apparently incredibly with the adoption of a gluten-free Paleo diet.

So we know that there are some mechanisms like narcolepsy has an autoimmune component to it, different types of autism might have some autoimmune component to it - these things are so complex and we're so in the nascent early birth stage of figuring a ton of this stuff out. So it's pretty speculative but again we're just asking folks to switch out one variety of food for another variety of food that typically has more nutrition anyways.

So I think it's worth a shot and again we've had some feedback from folks that stuttering has improved with some sort of a gluten-free approach and something that you can do for further follow-up if you just do some Googling on stuttering autoimmunity there are some interesting stuff on that.

So whenever we see that autoimmune thing pop up doing an autoimmune Paleo protocol seems like a pretty smart place to go.

Greg Everett: Cool.

Robb Wolf: Is that all we got?

Greg Everett: What's that movie with Jeffrey Rush the king's speech or something like that?

Robb Wolf: Oh yeah.

Greg Everett: Awesome movie and someone who's not a stutterer at least not a legitimate one I just have trouble reading online that movie is pretty bad ass.

Robb Wolf: Yeah. It is.

Greg Everett: Okay.

Robb Wolf: Is that it?

Greg Everett: That's it.

Robb Wolf: Is that all we have?

Greg Everett: No more.

Robb Wolf: So I think the next podcast we're actually going to have Tim Farris on the show.

Greg Everett: It's going to be called the four hour podcast.

Robb Wolf: We should make him stay on here for four hours.

[Cross-talk]

Greg Everett: Cool.

Robb Wolf: Sweet. Any parting shots? Anything you want to tell folks?

Greg Everett: Nop. Oh yeah I'll say that apparently that People's Choice podcast award thing, the voting keeps going 'til the 15<sup>th</sup> which is Thursday I think. So yeah hit that up. All you've got to do is scroll down that

front page. We're in the health and fitness category. So if you like us go vote. That'll be fantastic.

Robb Wolf: Load up.

Greg Everett: I don't really know what it means but I like winning stuff.

Robb Wolf: Yeah.

Greg Everett: That's it.

Robb Wolf: Okay. I guess that's it for this episode. We'll be back with Tim Farris and then we are going to get Kiefer, Nate Miyaki and some other folks on the show here pretty soon. So stay tuned for all that.

Greg Everett: All right.

Robb Wolf: All right G. Talk to you later man. Thanks.

Greg Everett: See you.

Robb Wolf: Bye.

**[0:54:54] End of Audio**