

# **The Paleo Solution**

## **Episode 13**

Andy Deas: Robb Wolf, Andy Deas, Episode 13. What's going on?

Robb Wolf: Not much. Lucky 13.

Andy Deas: Yeah. I was going to skip it like they do, certain builders do in the high-rises, but you know, I'm like, "We're going to man up. We're going to do Episode 13. I'm okay with it."

Robb Wolf: Yeah, we'll tempt fate. I mean if we get hit by a comet, if Chico gets hit by a comet, then we know God wanted to smite us for the Paleolithic Solution.

Andy Deas: It was so bad He killed us.

Robb Wolf: Yeah.

Andy Deas: Also, we stepped it up and I'm using a nice headset today that I stole from my wife with the mute and everything, so we're going to see if we can clean up the audio a little bit although I'm so confident that switching to the headset, even though I spend a bunch of time playing with the audio levels, we're going to screw it up and I'm going to try to clean it up in editing.

Robb Wolf: I guarantee that any effort that we put into making this thing better will be paid back threefold in screwing it up, so yeah.

Andy Deas: You know, well, I really feel like that I think this is going to help with echoing problems, thanks to some of the links that Miles sent. But then I also feel like now that there's new variables that I may have to mess with and, you know, it's going to take a couple of episodes, but I'm going to do my best to clean it up ASAP.

Robb Wolf: Cool! Cool! We'll appreciate that.

Andy Deas: Yeah, because that Intro to Paleo episode that we're supposed to record needs to have good audio so we need to fix that soon.

Robb Wolf: Cool! Yeah, because that one might actually get like 8 to 10 listeners, so yeah.

Andy Deas: I did see someone on the blog actually still enjoying your joke about listeners' number so we're going to have to come up with something new. If anyone has any joke suggestions maybe, we could take some. I think Robb will be pleased with that.

Robb Wolf: Definitely. We could open the floor for that. But, you know, my deal with that is it just kind of reminds me of the old -- really, really old David Letterman gig where he was pretty self-effacing and I always found it pretty funny. But just to anybody who is listening, if I ever throw out some super preposterous claims like the ability to generate like a 500 to 750-pound deadlift with almost no actual deadlifting, and then I start justifying that position with this thing called market share, you all should just like back towards the door and then run because we've seriously jump the shark so that's part of my gig with the six listeners to just kind of keeping feet on the ground and not getting too hoity-toity about stuff.

Andy Deas: I also think we could use a little Jim Wendler-like humor like I think we need to come up with some little video recording making fun of things that may or may not be valid.

Robb Wolf: Yeah. I just want to be as big as Wendler and then I'll get to try to be as funny as Wendler. So that's my goal. I want to attack it in that order right now. But he is really, really funny. I had no idea but that dude is really funny.

Andy Deas: He is really funny although I'm like, "Dude, you're making fun of basically Super Enzymes. We love that stuff. But you're very funny."

Robb Wolf: If you're on enough juice then your digestive function goes up very, very well I suspect, so yeah, anyway.

Andy Deas: All right. Well, enough chitter-chatter. I'm out of control. We got some questions. And I know last episode you talked a little bit you wanted to briefly touch on the John Berardi Precision Nutrition article that he had about gluten.

Robb Wolf: Yeah, and actually, that thing, the original article is no longer available. You have to be a Precision Nutrition subscriber to read that one. It was a good, good article but they -- again, maybe I am completely out to lunch on this. I fully recognize that's a possibility. But I see people tackling this on a very limited basis where they're only looking at celiac or celiac-type sensitivities with regards to the whole gluten issue and gut irritants and whatnot.

And just for the -- I'm right now reworking my talk for the first Paleolithic Solution talk that we're having in Chico this weekend and then we're having one in Union City at CrossFit One World. And the more and more and more that I read about this stuff, it is very broad-reaching and you cannot simply look at the normal diagnostic criteria which is usually some sort of an anti-gliadin antibody. Gliadin is one of the main proteins in gluten that our body will mount an autoimmune response to.

But there's this stuff tissue transglutaminase. Transglutaminase is an enzyme that is ubiquitous throughout the body. It's in virtually every tissue that we have and its function is to modify proteins after they've been produced. So our genes are basically set up to produce proteins. We transcribe DNA and RNA, and then RNA gets transcribed into transcription and then translation, they get translated into proteins.

And then those proteins get modified. It's called post-transcriptional modification and it's kind of like you have automobiles coming out of a factory and that's the basic protein, and then post-transcriptional modification is like sticking different-colored paint on the car or different hubcaps or whatever. It's some little tweaks and fiddles that different enzymes do and that's what transglutaminase does. It affects virtually every organ system in the body.

And gluten intolerance targets transglutaminase and we're finding that transglutaminase upregulation and abnormally high level of transglutaminase may be at the heart of Huntington's disease, Parkinson's. It's understood to be a player in celiac disease but it's just we haven't looked in enough tissues yet to really determine, oh, yeah, transglutaminase activity is high in this situation, you know, porphyria. Gosh, pick a disease and then look at it. We just haven't looked enough places like everywhere that we are looking we're finding elevated transglutaminase activity. The main thing that we see as an elevator of transglutaminase activity is gluten and cereal grain type items.

So this is where I am still of the opinion that your best bet is to just get in and remove this stuff completely. Remove the grains, the legumes, the dairy; give it a month or two months; see how you look, feel, and perform; reintroduce it if you want; and then run from that. But it's interesting also when the Precision Nutrition guys, they have their own in-house gluten sensitivity test and so it's like, "Well, gluten sensitivity, but it's not a problem for everybody. Use our gluten sensitivity test and then we can tell you whether or not you're gluten sensitive."

And it's bullshit, you know. It's like it is way far more far-reaching than that, and then sensitivity tests are not comprehensive at all. They do not give you the full picture. And really, in my opinion, the elimination diet is the only way to go with that.

And again, I'll kind of back that up in that it is free. It doesn't cost you anything. If I could figure out a way to monetize, like, "Hey, guys, cut this stuff out of your diet," and somehow I could get a nickel for every time somebody did that, I would do it. But I can't figure out a way to monetize somebody simply doing an elimination diet, but what happens is people get well and they feel better and they perform better and that's pretty much what I've been hanging my hat on with this stuff. So I forgot what the situation was that prompted me to bring that up, but I think touching on that again is definitely good.

Andy Deas: Wow! So many thoughts in my head. So two things, Robb. One, the people listening to this podcast, the new seminar would be last weekend 'cause we're recording it two days before the actual seminar.

Robb Wolf: Exactly. Yeah, yeah. Yup, yup, yup.

Andy Deas: And yeah. I mean I think that's it. Although there are people that have actually monetized the elimination diet, Robb, you just weren't slick enough to figure out how to do it.

Robb Wolf: Damn it.

Andy Deas: Good old Dax Moy over somewhere in Europe has a little -- I think basically if I recall what he did was something with recipes and kind of some steps and things, but it's simply the same idea. We're talking about remove this stuff for a period of time, see how things go, add certain things back in, do some food rotations, and just kind of tinker with it.

Robb Wolf: Yeah, I'm either a horrible self-promoter or I feel like I need to actually give people something to charge them money for it so it's probably a little bit of both, so yeesh.

Andy Deas: When you're done with this, Robb, there'll be nothing left for you to sell. You'll have to eat it all to death.

Robb Wolf: Just my body. Just my body on the streets and nobody will want that at that point.

Andy Deas: If we get you big enough, maybe.

Robb Wolf: That's true. Yeah, I could pull the whole power bear kind of card, so yeah.

Andy Deas: All right, good stuff. Well, now we're going to go to a question from Darren. I'm actually going to read most of this. I was originally going to cut up on chow but I just think it's -- it's kind of long, but I think I'm going to read it just for simplicity. So "Hey Robb, awesome podcast as usual. I find myself surfing this blog several times a week, trawling the archives and rereading posts again and again. Insane amount of useful, practical info here.

I was really interested to hear your comments right at the end of the podcast, RE: your consult with the guy built and wired up to look like an NFL linebacker. I feel like I hit a similar wall in the last 3 months of last year. I am 220, dead of 495, back squat 410 etc. so genetically I am exactly the same. Built like all the dudes on my mom's side of the family and they were all 6 foot plus, 200 pound plus, we have all been involved at a high level in rugby, power field events like shot put etc.

As I mentioned late last year we had a lot of WODs programmed that were just long slugfests, 40 minutes plus of tons of bodyweight movements, running, box jumps etc. at least 6 to 10 times a month. By December I just felt like I had gone from a strong, powerful 220 pounder to a big dude who could grind okay through long slugfests but had lost that power and explosiveness. I don't know if I had gotten fatter, but definitely not leaner. Was wondering if you could comment a bit more on the genetic influence here, possibly point me in the right directions to read up a bit more on how cortisol is increased via these long WODs, your take on genetics and how your training should be structured to accommodate your particular strengths.

I'm just beginning a program similar to that detailed in your adrenal fatigue article, Wendler 5-3-1 strength progression, some gymnastic stuff I suck at, and then a short 5 to 15 minute max CrossFit Football style WODs four times a week. I really feel I'll be better off going this route. Have you seen guys who look to just get wicked strong and powerful also see improvements in longer WODs? I intuitively think this may be the case. Any comments/suggestions/hints or tips would be appreciated. Thanks you from Down Under!"

Robb Wolf: Holy cats!

Andy Deas: That is a good question, Robb.

Robb Wolf:

That is a good six questions. Man, how do I tackle that one? Andy always preps this stuff ahead of time and then I read them and try to do research where appropriate and have some references so I don't completely fumble through everything, but there's just a ton going on here. You have to really --

The thing that popped into my head when I read this thing, and maybe Andy, we can put the link into this, the picture of the twins, the two track and field twins that Art De Vany had, and it's basically these two guys who are identical twins. One dude is a distance runner. One dude is kind of a shot putter or something like that. And so these guys have exactly identical genetics or as close as what you can get neglecting recombination events during cell division when we're an embryo. They're about as close as what you can get and these look dramatically different. One guy is very lean and muscular. The other guy is pretty skinny, kind of typical endurance athlete sort of gig. And what we have expressed here is epigenetics. It's the interaction of your genetic wiring with the environment.

One of these guys was oriented very much on strength and power and built physique and an engine that was indicative of that. Another guy was very much built on kind of optimized endurance, low bodyweight kind of thing typical of an endurance athlete, and both of these things popping out of the same genetic pool; and we don't even know for sure what type of lineage these guys come out of as far as like were they more predisposed towards strength and power and hypertrophy kind of muscle gains? Whereas like Darren, it sounds like it kind of comes from that stock, like he is a big, thick, strong dude.

And so that's just a thing to keep in mind is that the stimulus that we expose our body to is very, very important in what our desired outcomes are. And if you start pushing 40-minute long WODs, all that you're going to develop is strength endurance. Your explosiveness, your maximum strength is absolutely going to be impacted by that. Period.

Now, if you want to be a CrossFit gamer or say like you're a soccer player, then that's probably an appropriate place to go. If you're more rugby, shot put, American rules football, that is in my opinion a wholly inappropriate place to go.

Certainly, Darren asked about the whole cortisol issue. Cortisol is a very subjective thing based on your training age, your nutrition, your sleep. It's a stress and it's a stress that becomes abnormal in its duration and its frequency in which we start getting a problem with hypercorticism, high

cortisol levels, and that also will start impacting strength and power production, androgen hormones like testosterone, recovery, sleep, all that sort of stuff, and this is one of the first things when we're monitoring even our general population or athletes. How did you sleep? How have you been sleeping? If we start seeing sleep disturbance, then we know that they're probably burning things a little bit too hard.

Later, Darren asked, would a strength work plus CrossFit Football style WODs four times a week be a good deal? It could be or it might be way too much. It's really hard to tell. You need to see how hard you're going after that stuff. Again, the food, the nutrition, the sleep, all that sort of jive needs to be dialed in; and really, you need to be making consistent progress.

That Wendler deal is kind of a nice format to track that. I found Wendler most beneficial just in the peripheral work, kind of like the supplemental work, like the main 5-3-1 template was a little bit goofy for me. It just didn't seem to be driving things the way that I wanted to, but if I actually did my supplemental work well, then I've made some progress on it. But the nice thing about that is that you have very clear numbers from week to week and you can see if you're going forward to backwards. So I think it's very, very helpful in that regard.

And then when you're talking about CrossFit Football style WODs four times a week, this is really subjective too, like four times a week of met-con, depending on how you set it up, may be four days too much. It may be two days too much. There needs to be a lot of thought given to what the variety is and all that.

Andy and I have talked about this. Mat Lalonde and I were just emailing about this. Like somewhere in the mix, we also need to remember that there's this spot for kind of long, slow distance, more along the lines of hiking around with the vest, flipping tires, sledgehammer drills, but not at a frenetic pace. Maybe you keep a timer running to just say, "Okay, I did 30 minutes of work," but it's kind of unstructured, really legitimate kind of work capacity stuff, not just anaerobic capacity type work.

So I know I'm throwing a lot of stuff out there but Darren also threw a ton out here. You know, if he wants to kind of run with his genetic gifts, which I think would be smart thing to do, I would definitely orient more on the strength and power side of things. I would start looking at a little bit of block periodization and tackle things in that regard, like really going a baseline modicum of kind of met-con type stuff, maybe even just sprint work, 40 and sub 100-meter sprints, full rest and recovery, lift heavy

weights, do that for 6 to 8 weeks, and then go into a 3 to 4 week a little bit more lactate or work capacity driven kind of phase, go into a strength maintenance phase and then cycle back and forth between those. I think that makes a ton of sense. And keep an eye on making forward progress would be where I would take this thing.

Andy, what's your thoughts on all of that?

Andy Deas: That was a mouthful.

Robb Wolf: It was a mouthful.

Andy Deas: No, I'm with it. I think back to your point about his genetic potentials, I think Darren needs to give some thought, what are his goals? What's he trying to get to? I don't know if he wants to be a CrossFit Games competitor. If I was built like that, I would probably really focus on strength and power and just ride that horse until I couldn't ride it anymore. But I think, you know, I feel like a lot of folks, especially that have been CrossFit influenced, get stuck in this process of trying to improve on everything all the time, and I feel like after you've made --

I think that works well with beginners but even with slightly intermediate athletes, I think that's hard if not impossible to keep that maintenance. And that's why as we talk about the Dan John seasonal training, block training, periodization, whatever we're talking about, I feel like at some point you got a sense of time thinking about "Okay, what am I going to focus on for this amount of time?" You're not going to be able to, you know, some people say they can't ride two horses at the same time.

Robb Wolf: Right.

Andy Deas: So you might as well decide what you're riding and ride it till it won't go anymore, and then we'll do something else.

Robb Wolf: Yeah. And, you know, words from Poliquin where he's like, "Figure out what type of animal you are and run with that." Thinking about some stuff that James Fitzgerald talk about, kind of differences between he and Brett Marshall, when they were comparing narrow grip bench press between the two of the guys, like they're both doing some assessments on kind of anterior pressing versus posterior scapular retraction and they're doing some assessment with that.

But also, there was some interesting fiber type assessment on that which is that Brett Marshall can only get -- I think James said about three reps



with 85% of his one rep max, whereas James can get about 11 or 12 reps with 85% of his one rep max. So Brett is wired up much more fast twitchy; and subsequent to that, when he started doing more volume-based CrossFit WOD type stuff, it destroyed him, I mean absolutely crushed him.

And I see people like myself, Josh Everett and some other people who are a little bit on that fast twitchy side, I didn't find as long as I kept my programming on that kind of 10 minute and under sort of thing, occasionally 15 minutes, and then when I started really pushing hard WODs 20-25 minutes, you know, stuff like Filthy 50 and stuff like that, when I had some inklings of chasing the CrossFit game, that mixed with bad sleep and a lot of stress, travel, all the rest of that, it destroyed me. I mean it absolutely crushed me.

And so obviously, the HQ response to that would be that I'm a pussy which I think goes without saying, but then the deeper thing to that is that there are some people who are wired up better for short, middle, and long distance stuff, and that shouldn't be that big of a surprise for any of us, you know. We see that played out in adolescent, high school, college, and Olympic caliber athletics. There's a big selection criteria based on like mental capacities and legit physiological capacities.

And I think Darren is probably, you know, he has probably got the potential to be a big, strong dude and that's probably going to be maybe not easy but easier and probably pretty gratifying and he is going to actually have something pretty good waiting at the end of that process with some decent work capacity. I mean doing some CrossFit Football type stuff in a smart way plus some dedicated strength work is obviously going to produce loads of work capacity, but maybe these 40 and 45-minute long WODs, he is not going to do all that well just because he's not that well wired up to do it. And what you need to give up to be good may not be worth it. I mean certainly experiment with it and see where you're at, and if you just love it, go for it.

But we had a girl who was training with us who was all American, 100-meter sprinter and she came in and had 12 or 15 deadhang pull-ups, bodyweight and three-quarters back squat, and this is just right out of the gate because she had a phenomenal genetic base and she had O-lifted and powerlifted to support her sprinting for years, for like 8 years, 12 years, something like that, and then she decided she wanted to become a triathlete, and I literally could cry.

I wanted to cry because we had this amazing strength and power base that we could have really done something within the kind of mixed modal CrossFit land, which this makes me think a little bit about the dudes that were going after Melissa Urban the other day and like this just whole kind of fantasy land that people are existing in with regards to where the strength athletics come into play in this. We still have not seen somebody who is an Olympic caliber bobsled pusher, 100-meter sprinter or anything like that come in and then do some mixed modal activity. We just haven't.

You know, there are a couple of people that we've had brushed into the CrossFit scene who are professional athletes like Jocelyn, Rob Orlando, a couple of other people. They ended up stomping a hole in people's ass because they're very, very strong and mentally tough and very competitive. But we haven't even like opened the doors of the top-tier athletes yet; and I know I'm getting kind of far afield here but there's just all stuff people need to keep in mind with all this. Like there's just a ton of different ways to go and having some sort of a goal or a plan in mind is really helpful with all this.

Andy Deas: Yeah. I mean if I was there then I think I would, you know, maybe drop all met-cons for a couple of weeks, play with the Wendler, play with the gymnastics stuff, see how you feel, and then do some, as you said, general work capacity stuff, light sled drags, walk in with a vest, and just kind of see how you feel.

Robb Wolf: Yeah, yeah.

Andy Deas: I feel like your comment of fantasy land, there is like this imaginary world out there where everyone -- I feel like things that the CrossFit definition of fitness is optimal and applies equally to everyone no matter your genetic type, no matter your strengths, weaknesses, etc., and I just feel like that is like the most abstract, unrealistic thought I've heard in a long time.

Robb Wolf: Yeah, I agree. And, you know, like as a definition of fitness and health in general, I really, really like it. I've got some tweaks that I would do, but in general, I really, really like it. But it's very, very limited in scope and it paints the only picture in town, the only game in town is trying to be a CrossFit gamer, and I get that like that's part of the marketing and the hyperbole associated with that.

But had they been a little bit more open to like, "Hey, we can apply this stuff is a sportive way, sport-specific way, like what CrossFit Football was

done,” and just have a little bit more open discourse on that, it’s like, “Okay. Well, we can apply these concepts in this way here and that’s fine.” But instead, it became this kind of all-or-nothing thing, which I think is really unfortunate for everybody because it could have been much more comprehensive, all-inclusive, and all that. But hey, I just practice pseudo science so what do I know.

Andy Deas: No. But I think you’re totally right. I think one of the best things I got out of the CrossFit world is the exposure to a little more of that mixed modal activity and I think there’s just a lot of application to that as long as you realize it’s not the end-all-be-all, it’s not magic, and it’s got to be applied smartly depending on what the goals are you programmed on.

Robb Wolf: Yeah, and most of the solid coaches out there get that and they start implementing it. And yeah, yeah, good. We could do a whole other show on that topic. I don’t want to beat that. I got very far afield from what Darren’s original question was, but hopefully, that helps to answer that and provides a little food for thought on the rest of that stuff.

Andy Deas: We’re sorry, Darren. This is what it sounds like at the gym while I’m rolling and Robb is back squatting and we’re just talking.

Robb Wolf: And my wife just rolls her eyes constantly, so she’s like, “How did I get stuck with this schmuck?” So yeah.

Andy Deas: All right. Well, I think that dovetails nicely into our next question from Ian. He says, “Okay, something weird is happening. I ditched my cheat meal, kept up with a Paleo dairy/gluten-free diet, dropped my cals to 2000, increased protein to 180 grams, carbs to under 50 a day and started doing Max Effort Black Box 3 days a week. I have gotten stronger and have put on 5 pounds in the last 3 weeks. Not trying really to gain size but it is nice. Could it be that those long met-cons had my system all f’ed up making it next to impossible to gain muscle?”

Robb Wolf: Folks, this question is not a plant. Yeah, I think that this is pretty standard stuff. You know, it’s interesting again going back to the dudes who were kind of nipping at Melissa Urban’s heels about some stuff. I forgot if it was Russ or which one of the guys it was, but they were like, “I made really good progress on the standard kind of .com WODs and then I did a strength routine and I made progress, but then I started plateauing out, and then I went back to more met-con, and then I made better progress than I’ve ever made before.”

And it's like yeah, you just described block periodization. No shit. And not to be a dick, but it's like this is more of what's going on, and if you've pushed and developed a ton of work capacity and then you drop in and so some strength work, and reel that work capacity effort back, then you theoretically have a greater kind of potential reserve put into strength and power activities. And this is kind of classical Russian super compensation theory, and then you're going to ride that pony about as far as you can, and then you'll shift gears and do a little bit more of a work capacity oriented thing.

And like they used to use things like Javorek complexes and circuit training. I mean you flip open Science and Practice of Strength Training and they talk about this stuff all the time. It is not rocket science. It's just we got very, very enamored with mixed modal activity. You get great results out of it but it's again, from the Mark Rippetoe thing, it's the no-vest effect.

And then you need to sit down and start doing some thinking about where your next step is and how you're tackling that next step; and I think you need experience here. It's like yeah, it totally makes sense. He got his protein intake higher. Metabolic factors are better. Max Effort Black Box programming, Rut is just a stud on that stuff. It's really smart, really, really solid programming. And then all of a sudden, you start making some progress.

And he'll probably ride that thing for 6 months, 8 months, maybe stagnate out, and then he'll need to do some gear shifting and figure out where his next step is depending on how Rut is stratifying his stuff. If Rut's tinkering that stuff well, which he usually does, then he may be able to ride that thing kind of indefinitely; and what Ian would need to do is just kind of think about some peripheral work that he needs to do. "Okay, I want to bring up some gymnastics skills, I want to walk on my hands for 100 meters, I want to do some kickboxing or jits or whatever," and then he starts endeavoring into a different sportive endeavor.

But I think what we're seeing here is just kind of a classic gearshift seasonal training a la Dan John, block periodization a la like 50,000 different Eastern Block exercise physiologists with 30-syllable names like Zatziorski and all that. And it's like yeah, okay, this totally makes sense.

Andy Deas:

Are you tapping? What's going on over there, man? I'm hearing the clicking today.

Robb Wolf: No tapping. I do get very expressive with my hands. Maybe I should set the laptop in the Ottoman in front of me and then not have it sitting in my lap. Let's see if that helps.

Andy Deas: It's not me. I got the headset on. I'm very Zen right now, Robb.

Robb Wolf: I've got the headset. Usually, I have the laptop sitting in my lap and I start waving my hands around all excitedly. So let me know if that's better. I'm sitting in the floor, laptop on the Ottoman.

Andy Deas: No. That sounds awesome right now.

Robb Wolf: Okay. Sorry, folks. It only took me 13 episodes to figure that out. Sorry.

Andy Deas: Put Keystone in your lap and then we'll be good to go.

Yeah, and you know, one comment on the Max Effort Black Box, I feel like that's a really solid template where Rut is using some mixed modal activity in short bursts. He gets a lot of the benefits out of it but not beating the crap out of people and I think it's really smart, it works, and it's efficient, and we don't spend 70 minutes doing like Filthy 100 or whatever the latest beat-down is.

Robb Wolf: Right, right. And for a once-a-month gig, you want to see the white buffalo in the sky. Like our clients love that stuff. When they see the Filthy 50 pop up, they're just like, "Oh, my God, I love it!" And that's great.

So like from a gym owner perspective, we definitely want to cultivate that stuff and have it in there in a way that people enjoy it and they like it; but at the same time, most of the people, like I got to say who are the most geeked out on that stuff, are people who are the most orthopedically challenged, they cheat reps, you're never real clear about whether or not they're counting their reps quite correctly and all the rest of that stuff.

So it's a real interesting psychology the folks that are very, very drawn to those uber long beat-downs because it just ends up again and again, like what I see out of a lot of endurance activities -- running, biking, run, bike, swim being kind of the primary ones, is that folks literally have like kind of an out-of-body experience. They just disappear, they're off someplace else, they dissociate from their body, and they're just not home.

And a lot of times, when they get dropped into a CrossFit mixed modal kind of activity, that level of intensity that they're called upon to generate is very uncomfortable for them because you are very front and center. You are in your body. And then over the course of time, where this stuff inevitably seems to go is instead of it being higher technicality, more cognitive demands, it's like can you do a workout that involves muscle-ups, overhead squats, and walking on your hands instead of it turning into stuff like that, it just starts getting longer and longer and longer and then we start seeing shitty reps, orthopedic problems, and kind of this dissociative deal where people just kind of leave their bodies and then they're gone. They're not focusing on where they're at.

And that's another thing where I really, really like surfing, snowboarding, jujitsu, kickboxing, like all that stuff where if you let your attention wander, you're dead, you're getting pounded, you're either getting dumped into the rocks, you're doing a Sonny Bono into a tree or some dude is going to tap you out. And I really dig that stuff for that regard and that's also why I like --

If you're going to do some of the mixed modal stuff, make it technically, you know, make it challenging or time index it enough that people are able to keep some mental focus on it. Don't take people too often to a point where they need to dissociate from their body to get through it is my opinion. We're not making Navy Seals. When you need to do that, then sure, fine, do that. But for the bulk of people, I think they could really benefit more from getting in their body and actually feeling what's going on and experiencing all that stuff.

Andy Deas: Well said.

Robb Wolf: Maybe. Our listenership has gone from like 8 to 2. People are like, "I'm over it, dude."

Andy Deas: Robb, only you and I are sitting around thinking handstand walking. That's the best WOD there is.

Robb Wolf: That's true although I did make my prediction for the games so we'll see.

Andy Deas: All right, good, good answer. Let's see. Next we got a question from Kevin. He says, "One subject I would love to see in the podcast is a review of things that can cause Paleo not to work. I am a prime example. I've been eating pretty strict Paleo for several months and didn't lose any weight. I switched over to a very low carb-diet with higher fat and that didn't help either. I take 3 to 6 grams of fish oil a day along with 95%

Paleo compliant eating. Something is wrong and it can't be my diet. What other factors can contribute to stalled fat loss?"

Robb Wolf: Whenever I start seeing people quantifying Paleo or even Zone or whatever and it's like I'm 95% compliant, that's some significant digits that they're keeping track of but not a whole lot to back it up. And so it starts making me wonder, okay, really how solid is that, so I would want to probably see a food log for this person to really get a sense of what the heck is going on.

Some obvious things that can derail this, if you have a feed bag attached to you with a bunch of almonds or cashews or something, then obviously you can consume a massive amount of calories. And although you may not get hugely fat from it, you're definitely not going to lose any weight or lean out or anything like that.

Sleep, overtraining, some mineral stuff like lack of magnesium or zinc could be some of the other biggies here, but sleep and then just making sure that we're not doing a situation. Like Poliquin has a saying, "You need to understand the difference between a mouth and a vacuum cleaner," and so that would be the stuff that I would consider here.

Andy Deas: Yeah. I would be curious also in the fish oil thing. I think we've seen a fair number of folks. I'm not sure how much Kevin weighs that he needs to start at that higher dosage to help push things along.

Robb Wolf: Mm-hmm.

Andy Deas: And this is also one where, you know, we don't really push weighing and measuring 'cause for most people I don't think it's magic, but for some folks, there's certainly a time and place. "Hey, we're not making progress to your point food journal, weigh and measure. Let's see how much you're actually eating."

Robb Wolf: Yeah. And, you know, the food journal can happen at steps. Like the first food journal is just a qualitative thing. It's like breakfast is a salmon scramble. Lunch is whatever. It's a salad with some meat or whatever. But then it's like snacked on almonds throughout the day and then you're like, "Okay, about how many almonds did you eat?" And you're like, "Well, I had one of those Costco tubs and I go through one of those every two days." And you're like, "Okay. So what we're going to do is take a handful of almonds, throw that in a Ziploc bag and that's all you get for the day."

And so then it becomes very, very simple to eyeball this stuff, and then if that doesn't work, then we break out the food scale and we start weighing and measuring on this stuff and we'll really tackle it aggressively. But it all depends on where your buy-in on this stuff is. A lot of people find the weighing and measuring so invasive, so kind of neurotic that it just spins them out and they're done, and I only base that off of almost 10 years of pseudo-scientific clinical experience doing this stuff, you know.

And so we want to make it as easy as possible for people in general. Now, that said, if I have somebody who's doing one-on-one training with me and they're paying me \$800 or \$1000 a month for training and they want to lose some significant body fat, then they are going to weigh and measure their food from day one. Period. Like I'm going to just crush them on the details because I'm not going to let them get any latitude on this thing such that they can screw it up, like they're going to do it exactly the way I want them to do it. But I think that there's a really easy, stratified way to analyze this thing to get somebody much better results and it doesn't have to go head over heels weighing and measuring right out of the gate. A simple food log can tell you a ton.

Andy Deas:

Yup. All right, good. Next, question from Brian. He says, "Wonderful, wonderful, wonderful podcast!" Three wonderfuls, we'll take that.

"Two questions I hope you consider: 1) Losing too much weight on Paleo." He has an athlete, female, 31, 5'3", 111 pounds. She went totally Paleo two weeks ago, the biggest change being no grains. Since that time, she's lost 12 pounds.

"I noticed the weight loss and approached her about it, worried that there was some dysmorphia or stress involved. She said no and the only change had been going 100% Paleo. I told her she really needs to try to eat more and she told me she's eating every two hours to try to gain weight back, but while she's stabilized, she's not gaining. She's never hungry. She's still eating as much as she can. I haven't gotten a food log, but told her tonight to start one and share it with me ASAP. My first reaction is whole milk. Wondering if you have any other recommendations."

Robb Wolf:

Well, I guess I would just kind of look at this and try to get a sense of is she still -- does she look good? Does she feel good? Is she performing well? I guess I would kind of look at it first with that. I mean if the hunger isn't that big of an issue and her performance is good, 5'3", and he is saying that she is...



Andy Deas: She should be 99 pounds.

Robb Wolf: So she's 99 pounds? That's going to be skinny. That's going to be itty-bitty but not totally outside the realm of possibility too. We saw a deal with this with Sarah Fragoso where she lost a ton of weight. It got down real, real little, but then over the course of time with some linear progression, back squat, deadlift, press, push press, all the rest of that stuff, she still is a size zero but she has gained about 8 or 9 pounds of muscle and kind of filled out and everything.

And so I don't know. I mean again, you could food log it and look and see where she's at, but I'm just -- if the performance is good and like her hunger isn't crazy, then I would be reticent to really mess with it. You could certainly try some whole milk and try to beef her up a little bit that way, but then we'd get into some insulin resistance issues and some acne and androgen issues and stuff like that that may or may not be her best gig. I would just want to make sure that there is a legitimate problem here, not just that you've got a petite, small gal who is athletic and just kind of running with that. So I guess that would be my thought on that.

Andy Deas: Yeah. You know, unless you're willing to take the potential pain associated with heavy milk intake for some people and you really, really want to bulk up, I don't think it's the best idea. I mean I am drinking milk right now, but you know, I'm trying to put on serious weight, not 8 pounds.

Robb Wolf: Right, right. Yeah. Again, I would probably have her food log first and really just get kind of an eyeball of what she is doing and then see how she is looking, feeling, and performing; and if she is lethargic and tired and burned out and cold, kind of low metabolic rate, then yeah, let's really tackle some aggressive way to get some more food in her.

And if she is just not hungry, then you could also just up her carb intake -- more fruit, more yams, more sweet potatoes, and then you're going to get a better appetite out of that. Like you will definitely be more hungry from eating more carbs and she'll tend to eat more food overall.

Andy Deas: Yeah, good, all right. Question 2 from Brian: A vegetarian that literally can't stomach meat. I have a very good friend that's interested in the Paleo diet. She's tried to eat meat in the past and either throws it up or has bad lower GI issues. She was raised as a vegetarian, is 32, and though she has no moral issues with not eating meat, she can't seem to keep it

down. Leaner meats that she's tried tend to be less of a problem than fattier meats but still end in the same result.

She suffers from migraines and general ill health. I'm especially motivated by the story of Andy's wife, and I'm looking for a way to get my friend started on Paleo, but I don't know a way to get her to be able to digest meat, or give her a light at the end of the puke-filled tunnel." Nice image. Thank you.

"Any insights or guidance? Supplements that could prep her digestive system? Ideas on how to ease her into it? Any cases of clients going through this and coming out of it after a period of time? What kind of timeline?"

Robb Wolf:

I think, you know, almost I guarantee this girl is probably hypochloritic like low stomach acid. I would stand by like the NOW Foods Super Enzymes, have her take like two or three capsules with a meal that contains protein, you know, like some sort of a meat type protein, and see how she does with that. If she doesn't get any type of heat in the epigastric area, you know, like that stomach xiphoid process where your ribs come together, then her next meal she should drive force, keeps adding NOW Foods Super Enzyme until she feels some heat and then she dials that back. Andy and I still need to do a little video clip on this so that we can make sure that people understand how to do this gig.

I would do that. I would cook the meat or chicken or whatever that she is doing and like soups and stews and curries. Like anything like that where it's very, very cooked, cut up into small pieces, and kind of more processed, that will make it easier for her to digest it and then just tackle it in small amounts.

You know, Andy and I talked about the migraine deal before. This is absolutely an insulin crash like a blood sugar crash sort of gig shoring up her insulin-glucagon axis, like getting better blood sugar control will absolutely help that stuff. There's no doubt about it. We've definitely had clients go through this.

I mean the rate of resolution is just so subjective based on like are people actually compliant? Like if somebody gets in and actually does what we tell them to do, then the turnaround is usually pretty quick, but a lot of folks like this just hem and haw and drag their heels and don't really do it, and so the turnaround can be intimate. They kind of make a little forward progress and then backslide.

I've seen people who were very, very ill, horrible digestion, and they actually got in and aggressively tackled with this; and within three or four weeks they had a stunning resolution of their symptoms, like way, way, just huge improvement. But then we still have people in house who have been training with us for three years who still fiddle-fart around with this stuff and are not making the progress that they should. Chicks with still like 8 pull-up or 2 and they go in and out of having them and it's all food-related.

Andy Deas: It's not about the food, Robb.

Robb Wolf: I guarantee you it is.

Andy Deas: Yeah. So I mean I'm trying to think -- we had a woman recently on, Robb, but I'm trying to figure out how many weeks ago that was, that came in as a vegetarian and now consumes a reasonable amount of meat. But there's definitely an adjustment and, you know, your stomach is going to go through a little bit of adjusting especially if you haven't had to digest any meat in a long, long time.

Robb Wolf: You know, I find people all over the place with that. Like I was a vegetarian for four years or whatever, two years vegan, and I broke that fast with about 10 pounds of ribs and I was fine because I think psychologically I was just over it and I never really had any type of like aversion to meat. I thought I was going to be healthier. It was really the main drive for all that stuff. I didn't even have like huge moralistic issues because I was usually tracking down some grass-fed meat and all that sort of stuff when I was eating it previously.

So I think a lot of this stuff also ends up being somewhat psychosomatic but all of that is legit and you have to honor it or tackle it however you need to tackle it, but I've seen people -- Laura DeMarco is a good example, 18-year vegetarian and she attended the nutrition gig that I did in Atlanta two years ago now, hadn't eaten any type of any type of animal protein at all in 18 years and went out and had a steak and was fine. But she was just like, "Okay, I'm over it. I'm fully on board with this," and went out and got a grass-fed steak and ate like 12 ounces of steak and was fine.

And it's all over the place. Like Laura was already healthy and kind of on top of the food chain athlete and before a vegetarian she was eating very, very well, kind of a Zone ratioed vegetarian gig, so she was pretty damn healthy already. So there's a lot of spectrum on this but I think

people just need to get in and tackle it and give it a shot. Definitely, the digestive enzymes will help a bunch.

Andy Deas: You just compared your four-year fling with vegetarianism to this woman's 32 years fling with vegetarianism. I'm messing with you. I know.

Robb Wolf: I'll default back to Laura DeMarco's deal which is only 18 years as compared to 32, but there was no transition, there was no burpiness or anything. Like the main people like see what the problem with that. Usually, there's still some kind of psychological issues with like consuming meat, which I mean if somebody put -- I traveled through like Thailand and Vietnam and Laos and all that stuff, and you'd have like crickets on a stick and stuff like that. I ate some, but man, it was not a comfortable gig for me, and I can guarantee you, my digestion was not anything like what it was when there was chicken on a stick. So I fully get the kind of psychological nature of that stuff.

Andy Deas: All right, cool. Let's see. Next we got a question from Dave. "Thanks for the fantastic podcasts and all of the great info. Two issues that I am hoping that you could address are: 1) What are the best oils for cooking with? Is canola oil okay?"

Robb Wolf: I guess I would probably default with coconut oil as kind of the primary one; standard olive oil, probably two. Canola oil actually has a fair amount of both Omega-3's and Omega-6's in it and so it's a little more prone to oxidation, some transfat formation, fatty acid peroxides which are highly, highly reactive. So I would kind shy away from the canola oil. It's okay but it's not my favorite gig. Andy, what do you think on that?

Andy Deas: Animal fat.

Robb Wolf: Yup, you have some, you know, butter, lard, all that sort of jive. But I really like the coconut oil, like Andy and I just bought two gallons, he took a gallon, I took a gallon, of the standard Tropical Traditions coconut oil. It's not the extra virgin stuff. It's the step-down from that but it was like 25 bucks for a gallon and it's awesome for like frying eggs and doing all that sort of stuff. It's really, really good.

Andy Deas: Or you could just eat it like I do.

Robb Wolf: And you can spoon it out and eat it. I'm getting ready to make some pemmican out of it.

Andy Deas: Oh, nice. Cool!

Robb Wolf: Yeah, yeah.

Andy Deas: God, the things that make me excited.

Robb Wolf: Seriously.

Andy Deas: Whoo! Okay. Question 2: "What does it mean when certain deli meats are labeled as 'nitrite free'? Is this worth the extra expense?"

Robb Wolf: You know, nitrates and nitrites have some kind of mutagenic characteristics in a Petri dish kind of format. There were some studies that were done that actually showed that gut bacteria end up converting the nitrates and nitrites into some actually beneficial products, which it's been a long time since I did any reading on that. If Brad is listening to this thing, he is a toxicologist, maybe he'll chime in on the comments with this and tell us whether or not I'm totally full of dookie on that or whatever.

But in general, I don't think it's that big a deal one way or the other. Hopefully, we're not seeing like a ton of deli meats as your primary food source anyway because it's very salty and kind of that acid-base balance but if push comes to shove, not that big a deal. I would not really worry about it that much. Is the nitrate/nitrite free worth the extra expense? No, not really, but again, I would prefer not seeing that as kind of a primary staple too.

Andy Deas: All right, good. Ah, the vinegar question. Next we got a question from Jason. "Did anyone read this New York Times article from November about vinegar and its ability to lower blood sugar? I'm curious about folks' thoughts."

Robb Wolf: It seems legit and I think vinegar works. A really big dose of like lime or lemon juice seems to work pretty well so it's kind of the acid load and it seems to have something to do with the gastric emptying.

So the theory all along say like from Zone land was that you would take in a mixed meal. The mixed meal would have a significant amount of fat in it and that fat would slow gastric emptying and does blunt insulin response and glycemic response. That ended up not being true.

And in fact, actually, the addition of fat to a meal, a carbohydrate, and protein meal is actually synergistic to the insulin response. It makes it even larger so that Barry was completely wrong in that account. But

interestingly, in this account, the acid load actually ends up slowing legitimately gastric emptying without triggering any other type of gut response with regards to insulin release. So it seems like a legit way to mitigate your insulin release.

So you certainly could play with it. Usually, I'm recommending the bulk of people's carbs come in the form of a post-workout kind of window. So to some degree, where would you utilize this? Say like you're having some sort of a carbier meal and then you just throw back a couple of teaspoons of vinegar or lemon juice/lime juice to kind of blunt that, it seems like a totally reasonable thing to do, pretty easy to do, and it will actually work.

Andy Deas: Zone lands, we're going to give Mat Lalonde Zone Land, Mat Lalonde Land. I don't know.

Robb Wolf: But I'm just waiting for Mat to do his full treatment of the whole Zone and that's going to be spectacular, so yeah.

Andy Deas: Oh, my Lord. That will be popular.

Robb Wolf: That will be very popular, yeah, and that will be the day that like four days after that, Robb and Andy just disappeared.

Andy Deas: And it wasn't because we came into a lot of money and moved to the tropics.

Robb Wolf: No. They will have body parts on each continent from us, so yeah.

Andy Deas: Oh, man. Awesome! Next question from Brandon. "A question in regards to gram of protein per pound of bodyweight and weight loss." And I think we talked about this before but we'll touch on it on a little bit again. "Is this always going to be the case? What if you had a client who was 20%-30% body fat? Should you ever eat the 1:1 using your lean body mass as a guide?" I guess as opposed to total bodyweight.

Robb Wolf: Yeah. Poliquin was the one that made this point and he did it for a couple of reasons. Protein has a very high thermic effect so it actually requires a fair amount of energy to process protein so you actually are getting kind of fewer calories out of it compared to like carbohydrate or protein. It has a very potent satiating effect so people tend to feel full and satisfied.

Also, a problem that can happen with some people when they're trying to lose fat is they can become carnitine deficient. Carnitine is an amino acid that is critical in shuttling fat into the mitochondria, the little

furnaces in our cells that produce energy, and that's where fat gets basically burned. Carbohydrate and protein does too to some degree but that's what we're wanting to do in fat loss. So if someone is carnitine deficient, they can be very, very lethargic and kind of slow on body fat loss.

So if we do a pretty good whack of protein then we're covering a whole bunch of issues at all once, and that amount of protein can be adjusted as they lose bodyweight. But this thing also, you know, I mentioned satiety, it also addresses that thing where people are bellyaching about like, "Well, I'm hungry." And "Gee, whiz, whoa me. I don't get to eat Twinkies and all that stuff." And I was like, "Well, dude, you need eat --"

We had a client who was over 300 pounds. I was like, "You need to eat 300 grams of protein in a day," and he was kind of like, "Well, okay, whatever, but I'm going to be hungry." And the dude had a hell of a time getting the 300 grams of protein down and he just kind of instinctually ended up eating more veggies just to balance all that stuff out, and we've got them down to around 250 now.

And so it definitely works and then they just kind of adjust all that stuff as they go. It really works. I think it's legit. I would jump in and do it, and then like Andy mentioned earlier, the high dose fish oil for the very, very overweight individual and then titrating that down as they start getting healthier.

Andy Deas: Yeah.

Robb Wolf: There's some good science behind it and then anecdotally kind of empirically, we've seen it work quite well.

Andy Deas: Yeah, yeah. That's a lot of food.

Robb Wolf: That's a lot of food.

Andy Deas: All right. Next we got a question from Brett. He's got a question concerning diverticulitis.

Robb Wolf: Diverticulitis, yeah.

Andy Deas: Thank you, diverticulitis. Man! The smell is making me a little hazy. "I know you mentioned in a previous blog post that sufferers would benefit from a gluten-free Paleo diet. Several years back my father had a rupture and every so often and currently experiences a partial blockage. I

remember the docs told him not to eat stuff like seeds and nuts, but of course nothing about cutting out gut-irritating foods like grains, legumes, and dairy. I don't believe there is any scientific evidence proving that small bits of food like seeds get lodged and cause problems anyway.

It all makes perfect sense to me. Remove the gut irritants, eat a Paleo diet to prevent systematic inflammation, thereby reduce/prevent problems, but I haven't been able to get through to him to change his diet. Maybe with a little extra information from you I can finally convince him. Also, I recall he's blamed straining himself while 'working out' and that coinciding with the flare-up and original rupture. Any thoughts on that theory?"

Robb Wolf:

We'll tackle that first chunk first. The reading I was doing this morning on the transglutaminase again, and this is a recurring theme, but they're finding elevated transglutaminase levels in folks with diverticulitis and this was my point again that we just haven't looked in enough tissues to see if we are finding elevated transglutaminase levels in these inflamed tissues to be able to tie all this stuff together.

And so folks with diverticulitis have higher rates of celiac but there's not a linear correlation there, but we are seeing elevated levels of both transglutaminase in both diverticulitis, Crohn's disease, celiac and all these kind of gut-irritated type scenarios. And so it's a really easy argument to be like, "Yeah, dude, try going grain, legume, and dairy free." You could go with coconut oil, coconut milk, all that stuff for a nice gut-healing fat source. It has antimicrobial activity. It helps heal the gut in an irritated gut scenario.

So if you're removing all the nuts and seeds, it would be problematic. Make sure that he sticks with like soups and stews and kind of puree the food and chew it very, very well. Another good argument for the NOW Foods Super Enzyme on this to try to get all the signaling going.

But it's this thing again where it's like for crying out loud, you've got a month or two and you're going to notice almost immediately if this thing improves. Like we have a ton of people on the blog that have had Crohn's and diverticulitis that are like, "Dude, I tried gluten-free, dairy-free Paleo diet and I had resolution within like three weeks." And so it is easy if you just give it a damn shot.

And I will say this though. Trying to get your family to do stuff is just about like pissing in the wind. It's about as fruitless endeavor as you can get. You can give it a shot. Swing through the fences. God love you for



trying but the likelihood of your parents actually listening to you is damn low. But you could also maybe try to make up a bet and be like, "I'll bet you \$1000 you can't do it. You can't even try doing this. You're not tough enough to do this." I don't know what psychology you use on that situation.

The whole deal that he is straining himself while working out, and that coincided with the flare-up, it could be. I mean that isn't super hard to imagine on kind of a mechanical level. Just maybe you could have like a little intestinal adhesion where the intestines get stuck to the peritoneum, like the abdominal wall, and then you kind of pull or tear something

Also, all of this stuff, the gut irritated sort of scenarios are dramatically worsened by stress. And so if he ended up getting an injury, say he had a particularly hard workout and he did strain himself, let's say it was an abdominal strain, the abdominal strain had absolutely nothing to do really directly with the diverticulitis, but it was a stressful event and the guy is already kind of like fragile, then that could be something he could kick it over.

So yeah, I could see that being a potential, but it still doesn't really make a strong argument for sitting on your ass and just rotting away, at least not in my mind.

Andy Deas: Turn that phone off.

Robb Wolf: It's off.

Andy Deas: All right.

Robb Wolf: Thoughts? Feelings on that?

Andy Deas: No, I'm with you, I'm with. I hate this straining himself by working out. I guess that's obvious. It's theoretically a possibility.

Robb Wolf: Well, it's like the dude that he was 104 years old, like a former strongman and then he got hit by a taxi or something, riding his bike. So it's like exercise can kill you I guess, but it can happen in a whole variety of ways and I again would still probably rather die having a heart attack during a workout or something than being in a rest home and just going that way.

Andy Deas: Oh, I'll put in a second vote to that.

Robb Wolf: I'm sure Nicki will put in that vote too, and then she and Raul, the pool boy, can run away and live their dreams.

Andy Deas: Live their dreams, all right.

Robb Wolf: Someday she'll actually listen to one of these and she'll be like, "You're an asshole. I can't stand you."

Andy Deas: See, my wife listened to the first ten in a row and won a business trip and I got a ton of feedback, so don't listen to ten in a row.

Robb Wolf: Very positive.

Andy Deas: Yeah.

Robb Wolf: Okay, next one from Joey.

Andy Deas: All right, question from Joey. This is like Mat Lalonde land, but anyway, "Well I've been thinking about something for a while so here goes another question which I'm sure other people are wanting to know the answer to. On a low-carb Paleo diet, do you run the risk of not getting enough of the vitamins/minerals/antioxidants/etc. as you need? I eat pretty strict Paleo and eat a ton of veggies/fruit, but if I cut back on those, aren't I losing a lot of the vitamins/etc.?"

Robb Wolf: You could eat a ton of veggies and delete the fruit, delete like yams, sweet potatoes, all that sort of stuff, the dense carbohydrate sources. Eat a ton of vegetable matter and still be under 70-80 grams of carbs a day. I mean you can eat mountains of like broccoli, kale, spinach, tomatoes, onions, all that sort of stuff.

And I think Mike Eades did a nice analysis of this word, and that dude really does not eat that much food, but I think he pumped his food through a nutrition analyzer. He was about 1700 calories a day and he was like at or above the RDA on everything except like calcium, which we talked about the whole calcium issue. It's not really how much calcium you take in. It's vitamin D and weight-bearing exercise and acid-base balance.

So yeah, I mean I really would not be worried about that. It's a common question but so long as you keep plenty of veggies in there, that's fine. And plenty is really relative. I mean it's like a cup or two of broccoli with breakfast, something similar with lunch, a similar deal with dinner. You're

doing pretty well. You're not that off. You're way better than what most people are doing.

Andy Deas: Yup. All right, good question. Next question from Steve. "Hey Robb, looks like it's been a rough wind up to the 09/10 transition. I hope things get on the up and up soon." Things are on the up and up, man, I don't know. Anyway --

Robb Wolf: Things are good. Thank you for that.

Andy Deas: Yeah, things are good.

Robb Wolf: Yeah.

Andy Deas: Other than Keystone, nothing happening. "I've got a question from a friend who's basically eating Paleo minus meat. No soy, wheat, dairy, caffeine, very little starch and has had pounding headaches going on about six days now.

Says he: 'The bulk of my protein in the next month will come from nuts, seeds, beans, and a little bit from yogurt and a supplement to fill in any gaps. Daily protein intake will be 70 to 120 grams. I'm aware of the challenges of a vegetarian/vegan diet, and rather comfortable working within them. At first I thought I might be experiencing caffeine withdrawal, but it's been 6 days now and my head is pounding almost every day. I'm fairly sure I drink enough water, at least four 12-ounce glasses a day.'

Any ideas on what's going on here? And feel free to totally ignore this if life is crushing you right now. Good vibes from Australia dude."

Robb Wolf: I cannot wait to get to Australia. One thing, and this goes back to like insulin and glucagon. Glucagon is released by protein but it needs to be dense, non-fibrous protein sources. What we have here is a guy taking in what we could call third world proteins -- nuts, seeds, beans, and all that stuff. It will keep you alive but you're not going to thrive on it and that's just the facts. I wish it was different but it's not.

What he needs to do is get some dense protein sources in there -- tofu, tempeh, brown rice, protein powder, some split pea protein powder. Like he needs to find as many diversified options as he can and get some dense protein sources in there to just get some glucagon release. The dude is getting nothing currently.

And I wouldn't doubt that he's got a little bit of caffeine withdrawal that's being exacerbated by like a kind of constantly elevated insulin level, and the two things are kind of landing together in a really nasty synergistic fashion.

So he can for sure pull this off in a vegan/vegetarian way but he's got to get more dense protein sources in there. He has to do it if he wants to get better body composition and kind of get a handle on this stuff. And he might try just doing like one espresso in the morning or something like that, like a double espresso and kind of titrate down that way instead of just the full cold turkey thing like tackle things one stage at a time.

And yet again, I would probably recommend this dude do some sort of a betaine hydrochloride, NOW Foods Super Enzyme sort of thing to augment his digestion 'cause I'll guarantee you, the dude's digestion is poor. I'll just guarantee that.

Andy Deas: Yeah. I don't know how much caffeine he was drinking but if you're drinking enough caffeine, six days is nothing to still have headaches.

Robb Wolf: No. When I did my full caffeine removal, day 3 I literally was hallucinating and I was having tactile hallucinations and stuff, and that extended into day 5, and then I just felt miserable after that for a while. So it's no joke, man. That is no joke. But I can quit that stuff anytime, anytime.

Andy Deas: All right, Robb. We have arrived at the last topic.

Robb Wolf: Cool!

Andy Deas: Of the day. This may be the topic of the day depending on how it goes. Who knows? This could turn into train wreck but an interesting topic.

So there was a comment on the blog and I don't remember the original comment but you had responded to Sarah about I think female egg fat being a combination problem of growth hormone and estrogen, and this is part of why CrossFit works so well for women, not so well for men, is the potent growth hormone release. So I wanted to get your thoughts on that. We're actually having a related conversation of this at the gym this morning and folks are super stoked that we're going to talk about this.

Robb Wolf: You know, okay, use your words, Robb. We see in a lot of women -- you can see it in men too. The estrogen sites in the whole Poliquin Biosignature world are on the quads, and in elevated sites they're just

usually indicative of either too much estrogen as a baseline or some type of an estrogen detoxification insufficiency.

Now, all of our hormones that get produced will release cortisol, testosterone, estrogen, whatever. These things go through circulation, they bind to receptor sites and whatnot, and then they either get pulled into the cell and kind of degraded or processed or they work their way through circulation, hit the liver, and then the liver processes and detoxifies these things. And by detox, it usually makes them water-soluble and then they get excreted in the urine or the feces or they get attached to the bile salts and get excreted in the feces with the bile and all that stuff.

And so what we see with a lot of women, and we see more and more of this stuff, xenoestrogens out of the environment so like plasticizers and stuff like that, beer because Hops have a ton of estrogenic compounds, soy-related stuff. We can see some high estrogen site activity in folks.

Now, women tend to respond very, very well to CrossFit because the lactate-producing workouts end up releasing a lot of growth hormone and this will tweak that estrogen axis in a favorable way. It seems to be very, very favorable for females. James Fitzgerald alluded to this in his awesome but very nebulous Performance Menu piece in which he talked a little bit about Biosignature, and I'm sure he will be expanding upon that stuff at his OPT coaching certification stuff.

Now, with men what we find is that this overaccentuation of the growth hormone axis can actually do some suppression interestingly of some of the other androgen hormones like testosterone. And even though testosterone and growth hormone are very, very synergistic, too much of a growth hormone kind of axis can start suppressing some of the testosterone function, and this stuff gets very, very far afield.

But this is where something is handy having someone who knows how to do Biosig, or a lot of this ends just playing out when people have smartly periodized programming. We keep coming back to this theme again. You maybe don't even need to have a super strong eye on this stuff, but just periodizing your programming and being focused on some sort of a strength-oriented progress can be an indicator that you've got your ducks in a row with all this.

So for Sarah, the thing that we were going to talk to her about is potentially looking at some sort of estrogen detox with like calcium-D-glucarate which enhances liver metabolism of estrogen. Di-indole

methane is another item that can be helpful with all that and shoot, I should probably write up a specific protocol on this for her to work her way through this.

This is where it gets really, really hard because folks have these very specific questions, but then, there's not a formulaic approach to this. It's very specific to what they have going on. But in general, if you start looking into like calcium-D-glucarate or di-indole methane and this probably could go into the supplement podcast as well, but these are some estrogen detox methodologies that you could look into, and you will likely then see a decrease in that quad-oriented fat deposition.

Andy Deas: One size fits all, Robb. You're totally wrong right now.

Robb Wolf: I need to adopt that with my underwear. It will make it easier to shop. When you try to find mediums they're all gone, and that's left are extra, extra grande. So I'll start wearing the extra, extra grande clothing too.

Andy Deas: One size fits all. Grow your market share up. You're missing the boat.

Robb Wolf: I like it. I like it. Does that make sense? I mean we'll see if it makes sense to folks and see if it helps them at all or if it generates a ton of questions.

Andy Deas: That makes sense. It's a reminder that Robb, after the seminar that is occurring two days after -- before this post, we need to get the Intro to Paleo out first and then the supplement one. I'm getting like hate messages on Facebook from people like, "Andy, stop teasing this stupid supplement episode and just record it."

Robb Wolf: We could do that. We could map out some specific protocols on all that stuff too so that will take a little time to map it out, but like the estrogen detox deal would be a perfect thing for that. A cortisol management protocol light so we give people more ammo than what they know what to do with would be a good one too. So we could certainly tackle that stuff.

Andy Deas: All right, cool. Well, with that, that's it, Robb. I'm going to wish you luck that you don't need on your first seminar two days before.

Robb Wolf: Well, you'll be asleep partway through it so it will be good fun for everybody.

Andy Deas: Well, if we're going to talk about pemmican, I might be excited.

Robb Wolf: We'll definitely talk about pemmican, I promise.

Andy Deas: All right. Well, with that, I will talk to you later. Enjoy the rest of your day, man.

Robb Wolf: Thanks and thanks everybody for listening.

Andy Deas: All right. See you, Robb.

Robb Wolf: Bye.

Andy Deas: Bye-bye.