

The Paleo Solution

Episode 47

Andy Deas: Robb Wolf, Andy Deas back with Episode 47. I think we're now called "The Paleo Solution." Is that correct, Robb?

Robb Wolf: You know what, we could roll either way.

Andy Deas: I just saw on your blog it's Paleo Solution, so I thought I guess it would be good to change the name in the show notes. I don't want to violate some sort of branding.

Robb Wolf: Similar to everything in the gym, I'm the last one to know and probably the worst person to ask. So yeah, I don't know.

Andy Deas: Well Robb, I saw that you put up a quick start guide on the website. I've never seen it before so I was like, "Oh, this is interesting."

Robb Wolf: Yeah. Actually, all those new tools, I'm going to try to actually make more accessible for new people to find. So that's just kind of a novel idea there, like not only provide schwag for people to use but maybe make it possible for them to find it too.

Andy Deas: That is a crazy idea, Robb, and you know it.

Robb Wolf: So we have further website updates rolling here. So you just got back from the OPT wingding down in San Diego. How was that?

Andy Deas: Oh, yeah. It was phenomenal. I am physically just crushed from five days of lecture. I did the assessment and then program design module and had a little break in between; and I hadn't got a chance to hang out at OPT a time before and was super impressed sort of on his techniques for manipulating CrossFit and kind of marrying that with bodybuilding and legit strengthening and conditioning principles; and I think my favorite quote of the week was, "You know, Andy, there are no rules. There are only guidelines and legitimate principles that you have to follow."

Robb Wolf: That's good stuff. Well, you and I were talking right before we pressed record and what was James's kind of close or something? Did the effect, even if you go home and you can't affect change, at least you'll know why you're doing what you're doing?

Andy Deas: Yeah. His big thing was making sure that under the hood you may not change how you write the WODs or you may have reasons why you do it the way you do it, but he is like I want you to understand the science and some of the principles upon what that's based, and if you want to change things, great. If you decide you know what, I don't want to change any of the stuff, fine, but at least you understand kind of what you are doing with different athletes and how you're impacting them and ways to potentially modify that over time to see better results.

So honestly, I was saying, Robb, it's definitely one of the best things I've done within kind of we'll call it the CrossFit fitness certification kind of community, obviously notwithstanding The Paleo Solution seminar and then got a ton of good stuff out of Kelly's too; but both of those are sort of one-day things. And so these modules or mostly two of them, some of them or three of them, and then there's a ton of homework; and actually, what I liked about it was sometimes you'll leave the seminar and you'll be like, "You know what, that's B.S. I'm never going to try it." And I think his approach is "I'm going to make sure you understand what I'm saying and practice it," and then if you really think, "You know what, there's not a lot of value to it," great, but at least you actually tried to implement it and to see if it made things better or worse or stayed the same.

Robb Wolf: Yeah. That's shocking actually giving it a shot instead of a massive theory war about why it would or would not work. That's fascinating.

Andy Deas: Well, and also I enjoyed that several of James' themes throughout the weekend was test retest and it was sort of like the Kelly Starrett test retest. Did this make change?

Robb Wolf: Right.

Andy Deas: Of course, sometimes, a MOAB might make change a little faster than changing someone's programming. But really good stuff. I can't recommend it enough. It was interesting. There was a number of folks there that actually don't run boxes or do programming. Some of them like for example follow James's OPT Big Dogs template on the web and wanted some more understanding when they tried to reverse engineer what James is doing to them.

Robb Wolf: Wow!

Andy Deas: So I thought that was just sort of interesting. So I'm like, "You guys don't do any programming." "No, we just do the online competitions with James. We get a lot out of them." And they're like, "We're trying to figure

out what we've been doing and why it's working." And I'm like, "Oh, that's cool. Right on."

Robb Wolf: So they came to the Death Star to learn Emperor Palpatine's tricks. That's pretty hot.

Andy Deas: Well, it was. They're like, "We're trying to figure out why he is doing some sets unbroken and all these things." And so obviously, I think you play around with some of the stuff. I know if you're learning all of that unbroken before a set, he is trying to make sure that you take appropriate rest and that kind of stuff. But I think if you don't coach people a little bit, sometimes you start to think, you kind of you're like, "Oh, why would you do some of this? Why would you a WOD and force every set to be unbroken?" Well, obviously, because you want appropriate rest in between each set and that kind of stuff. So yeah, really, really good stuff.

It's funny. I got a ton out of both those modules. Everyone I've talked to says his kind of life coaching is the best one, but I think it's the one that going into, everybody wants to do the program design; and then if you do the program design -- you know, luckily we did the assessment first. You realize some of the stuff he is talking about, you need some type of data to get you to do the design. And a lot of in his world, he is like "I do this particular test. You may not do the same ones but this is the data I'm using to help drive some of the program design obviously along with talking to the client and goals and all that stuff."

But everyone I talked to like Scottie Hagnes said the life coaching one was the most challenging and sort of amazing, overwhelming one where they're trying to get you to do a bunch of understanding what some of your personal life issues and coaches and understanding that before you can effectively make change in other people.

Robb Wolf: That's cool.

Andy Deas: Yeah.

Robb Wolf: Legit. James is awesome. Where he treads, lotus blossoms pop up beneath his feet, so like he is an amazing coach, amazing dude.

Andy Deas: Yes, and I got to watch James work out which was compete in the Big Dog challenge. And I'd tell you that the first part of the WOD, Robb, was like 10 minutes and you did -- you had 3 minutes to warm up and then you had 7 remaining minutes to do a 3RM snatch and then the remaining

time after that, max burpees to calculate your score, and it was pretty impressive to see some dudes get like 185 three reps and then bust out 105 burpees in the remaining 5 minutes.

Robb Wolf: Totally.

Andy Deas: That's a fair amount of work capacity.

Robb Wolf: Indeed, indeed.

Andy Deas: Not that I'd want that kind of working capacity, but I was like, "Man, that's a lot of working capacity."

Robb Wolf: I wouldn't mind having that work capacity. I could live with that.

Andy Deas: You could deal with that.

Robb Wolf: I'd have to deal with that. Yeah.

Andy Deas: What else is going on with you? Anything exciting? So you're home for a little bit right after your sort of tour de force?

Robb Wolf: We're home. I have been home. We will be home until October 6 then we'd go to Hellerup, Denmark. We made New York Times Bestseller which is totally bad ass. The book is still doing really, really well and seems to actually be picking up in sales as we get pushed into our outer market. We're trying to get on some TV, newspaper, radio, and all that sort of stuff. So thank you again to everybody for your help and just super excited to see where this train goes. So super cool. Everything is going really well.

Andy Deas: And I'm still waiting for Robb Wolf on The Colbert Report. Just throwing that out there.

Robb Wolf: You will be the second or third person to find out when that happens, but I'm still keeping my fingers crossed for Chelsea Lately.

Andy Deas: Wow, she is much more attractive to be clear. I'm just saying. And that's an important component when you're trying to get on a TV show, Robb. I say you go with the most attractive host.

Robb Wolf: Yeah. And there's not a lot of hot female show hosts out there. So, you know, I'll do whatever I can, but Chelsea Lately would be a lot of fun.

Andy Deas: All right. Cool, man. We got a group of questions. I'll tell you, Robb, that the question volume has increased significantly since the new website has gone up. Maybe it's the fact that there's a nice little form for people to fill out that clearly says, "I'm sending a question to the podcast." I don't know but the volume is way up.

Robb Wolf: Cool, cool, cool.

Andy Deas: All right, man. First, we got a question from Marc and I got some comments for you, Marc. So he says, "Hi Robb, I'm still waiting to hear if you have any warranted fear of excessive fish oil oxidation. But more importantly, how about Pittsburgh getting some love? You have lots of fans here. I understand that the East Coast gets most of the love, but, Philly notwithstanding, PA gets mostly left out of Paleo, CrossFit and other great seminars. Even Ohio gets some more....WTF."

So I want to comment Marc that being from Ohio, that's the reason that me being from Ohio, that's why Ohio gets more love than Pittsburgh and then Pennsylvania. I'm just saying.

"If interested, I know my box owner Jen at CrossFit Athletics would love to bring most of you to her members. Thank you for all your work."

So Robb, I think actually today, did you make a post about fish oil oxidation or today was mercury?

Robb Wolf: No. It was actually just the importance. A further justification for the seemingly large fish oil recommendations for people who are sick was the initial deal.

And this idea of like excessive fish oil oxidation, yeah, I think that's legit. Like when we have turned the Titanic away from the iceberg and we get people eating more short chain saturated fats, a little bit of monounsaturated fats, get their antioxidant intake up from nonfibrous multicolored vegetable matter, hopefully getting further antioxidants from grass-fed meat and fish, I think more money and then we don't really need that much fish oil or long chain Omega-6 for that matter.

I think Kurt Harris and some other folks made some arguments for kind of minimizing Omega-3/Omega-6 intake, you know. Have enough to run the metabolic machinery that you need but not so much that these things start becoming a fuel substrate or spend a whole lot of time hanging out in your cell membranes throughout your body because they are an oxidative stress.

So the point here again, just like almost everybody is like who are we talking about? If we have a super lean, hard charging athlete who is eating well, they probably don't need nearly as much fish oil and would want to mitigate the fish oil or think about intelligent ways of getting it into their system. Somebody who is severely overweight, chronic inflammation, possibly autoimmune disease, they're going to need a ton of fish oil and it may in fact be an oxidative stress, but it's also going to start turning the Titanic, changing their inflammatory profile so they can start leaning out and start losing some body fat and start making some changes.

Andy Deas: Yup.

Robb Wolf: And we will definitely come to Pittsburgh. I promise.

Andy Deas: And maybe Robb will go to Ohio. Who knows?

Robb Wolf: We'll go to Ohio. What the heck. I have heard in Philly though that there's a bar that so long as you keep a beer ordered they give you a never-ending supply of deep-fried bacon.

Andy Deas: Really?

Robb Wolf: Yeah.

Andy Deas: In Pittsburgh they do these cool sandwiches when I used to eat sandwiches. I don't remember what they're called but they have like French fries on them and coleslaw on these. They're phenomenal after you've been out having some Norcal margaritas in the morning, but I can't remember the name anymore. Probably someone will email us and let us know what they're called. But anyway, Marc, Robb will get to PA someday.

Robb Wolf: I promise. I promise.

Andy Deas: Cool. Next, we got a question from Daniel. "Dear Andy and Robb, if this question makes the podcast, I can cross off one of the lifetime goals on my bucket list."

Robb Wolf: Wow!

Andy Deas: I'm just going to let that sink in.

Robb Wolf: We're just bringing Daniel one step closer to death. That's good to know.

Andy Deas: "I recently started listening to the podcast four months ago. I'm a type 1 diabetic. I am currently 5'7", 158, still in the process of leaning out, still carrying some body fat, average athletic performance, slow at short metcons, was 185 four months ago, been CrossFitting for almost two years.

I've listened to all podcasts related to type 1, post workout, and insulin. I was wondering if your post workout recommendations of sweet potatoes are recommended for type 1's. What recommendations do you make for type 1 post workout? What recommendations for weekly workouts? I work out at 5:30 a.m. Monday, Wednesday, Friday, and 8 a.m. on Saturday. Occasional CrossFit Endurance on Sunday. I'm experiencing blood sugar spike post workout. Probably liver dumping. Doctor is recommending insulin pre workout. Should reducing insulin intake be a goal?

Eating about 20 blocks or less. Sleeps 6 to 8 hours. Probably in the book or just one of those emails that can take up a whole podcast."

Robb Wolf: The type 1 deal is just so complex. I was doing a consult with a woman maybe three weeks ago, four weeks ago, and everything that she was presenting to me just seemed really squarely and counterintuitive; and I told her, I'm like, "Why don't you go to your doc and have him or her sniff around and see if you might have some type 1 diabetes brewing?" And sure enough, the woman was type 1 diabetic and had probably been type 1 diabetic for a long time.

And so a lot of what she was doing, like she would exercise and then end up with high blood glucose levels that would then attenuate over time. So this woman had a flavor of type 1 diabetes such that she still had some pancreatic function but not full pancreatic function and so she could kind of get behind the curve on the hepatic glucose production that happens when inadequate insulin has been produced and whatnot. So it's kind of an interesting gig.

For Daniel, I mean I would just have to put on you what are your main goals here? Like for me, if I were type 1 diabetic and it's hard to stick myself in someone else's shoes and say, "Well, I would do this or I would do that;" but even for where I'm at right now, being 38 years old, having trained a lot, done a lot of different stuff, I'm very much focused on kind of the health and longevity shtick.

And like probably the most demanding thing I do at this point is Brazilian jujitsu. I think Brazilian jujitsu would be tough to regulate blood glucose levels in a type 1 diabetic setting. But I would really have a very good sit-down with myself such that I'm kind of like, "Okay, is jits worthwhile such that I know that it's potentially impacting my long-term health?" And where I would go with this is just really keeping an eye on A1cs and doing whatever was necessary such that my A1cs were controlled below 5. If they start popping up above 5 then just bad things are happening.

So there's a bunch of questions here. What I'd recommend, yam or sweet potato for type 1's post workout. What would I recommend for the training and all the rest of that stuff? Again, it really depends on what you want. If you want a health and longevity bias, you might be appropriate for some yam or sweet potato post workout; but then again, maybe not because hopefully your work -- like if you legitimately have a health and longevity bias, your training probably looks like kind of smart, programmed bodybuilding and walking. And frankly, that may not be exciting enough for maybe like I, I just -- this CrossFit type stuff, CrossFit Endurance type stuff is the business. That's what I've got to do.

And so if that's the case, then we need to reevaluate what the heck is going on with that. I think considering a pre-workout insulin bolus as per your doctor's recommendations is probably a good idea because that's going to mitigate hepatic release of glucose. But here again, the top thing that you find with this is because the workouts are very -- because the intensity is variable, because all this stuff is variable, you never know what to do.

And so each time you do something, you don't really know what the result is going to be. So then you face the potential of too much insulin, not enough workout, and then you end up with a hypoglycemic event. And so that's where for the type 1 diabetic in my opinion, being a little bit more serial killer consistent, doing things in kind of a repetitious manner so that you have some data points to be able to compare "Okay, I did this workout at this intensity and it produced this blood glucose level subsequently." And also you weave into that "I had as much sleep and this level of stress." Like all of those things really matter for your blood glucose levels and they're going to matter on what type of decision you make with regards to your training and nutrition and programming and all the rest of that stuff.

So I can't just give a blanket recommendation on any of this. It's all 100% dependent on your goals, but I would really sit down and figure out are you health and longevity oriented or are you performance oriented. If

you're health and longevity oriented, then do whatever it takes such that your A1cs are low and that is generally eating a lowish-carb, quasi-ketogenic diet. You'll have to play with insulin boluses and probably check out like the Bernstein Diabetes Solution. You mention that you've read stuff that I've written on this stuff before so you should be pretty familiar with that.

If you are interested in performance optimization, then again, we want to do everything such that we can keep an eye on A1cs and overall blood glucose levels. You might benefit from enhanced glycogen loading post workout and kind of taking advantage of that pre-workout insulin bolus. But you're just going to have to play with that stuff. The thing is that you're going to have to map it and play around with it. And it's so variable from moment to moment. I cannot give a prescription on that. You just need to play with it and create a map of what things produce what blood glucose levels under what situations and then play with that. And it's hard, man. It's not simplistic stuff to manage.

Andy Deas: Yeah. The answer as with everything usually, Robb, it depends.

Robb Wolf: It depends a little and you need to inch into what the inputs and outputs are.

Andy Deas: Yup. All right, cool.

Next, I got a question from Jenny. "I was diagnosed with hypothyroid 15 years ago. First endocrinologist put me on the wrong medications and ran wrong blood tests to boot. Found a doctor that actually knew what was going on, but at that point 14 years later my body was so messed up. I eat Paleo now, CrossFitter, Firefighter. My doctor has slowly been testing my nutrition markers, short term and long term. My C3 serum is coming up slowly, 111 now, up from 20, but my long term is going down, started out at 50, came up to 98, now heading back down, currently at 80.

She is not totally convinced about Paleo although is impressed with how quickly my body has rebounded once I started Paleo. She is thinking about putting me on a T3 supplement because she thinks my T4 isn't being converted to T3. What can I do nutritionally to avoid taking a supplement? I'm currently keeping a food journal to make sure I eat enough and consistently. I need your thoughts. Thanks."

Robb Wolf: You know, I'm guessing because of the mention of the C3 in here that there's kind of potentially like a Hashimoto's thyroiditis autoimmune component to this. Jenny didn't mention that but I'm assuming that

that's the case here. In this situation with Hashimoto's, it's pretty dodgy to add additional dietary iodine. You can have some problems with that.

The T4-T3 conversion, there's a lot of moving parts with that. Cortisol can be an issue, so like a classic deal. In here we have Firefighter, CrossFitter, like all that sort of stuff. Cortisol can dramatically impact conversion of T4 to T3 though. So I would really look at potentially like an ASI test that would look at potentially finding somebody who does BioSig or Functional Medicine Doc or something like that to get a little bit of support on whether or not Jenny has some altered cortisol levels in there and that potentially is inhibiting the conversion of T4 to T3. If cortisol is legitimately normalized, which I would find shocking if that was true, given the fact that she's Firefighter and just rolling in the CrossFitter there, like I'd be surprised if she didn't have some overcortisol issues.

I think the cortisol management stuff, getting better sleep, prioritizing some downtime, doing some prioritization in your training, that is labeled to fix the T4-T3 conversion issue. If that is not the case, then you might need to go with like some Armour or some Synthroid or something like that, and you just work with your doc and figure out what the smart move is with that. But there are some cortisol issues that relate into that conversion.

And then stepping back again, the whole hypothyroid, if this is part of a Hashimoto's thyroiditis type condition, which I'm suspecting it probably is by what she mentioned in here, then by all means grain, legume, dairy free and let's try to address the autoimmune underlying piece. So those are my thoughts on that stuff.

Andy Deas: Yes. Yeah. There's a theme in a couple of these questions about questioning maybe workout intensity for some of these folks depending on what their goals are obviously.

Robb Wolf: Yeah, totally, totally. Andy and I had a fairly lengthy talk before we started rolling, just kind of debriefing him about this week with OPT and checking out OPT's training and all that stuff. And James is a huge fan of the CrossFit model which really I am too. Like even though there's been all kinds of drama and all the rest of it, like I think there's some amazing benefit to be had from that stuff.

But I think there needs to be some fourth eye and some planning to the exposure that people withstand some thought towards the energy systems that were working and some thought toward prioritization and downtime. And the historic problem that I think Glassman has had with

prioritization is that unlike some sort of a physics situation, I cannot press play on this system and then predict where I'm going to be one year from now with my prioritization. So it's unscientific in that regard unlike some sort of a close Newtonian model where like if I launch a projectile on space, I'll be able to track its velocity and angular momentum and all that stuff, and I can exactly predict where it's going to be.

But the thing is okay, so we're not at that level of sophistication with prioritization. We probably never will be. But does that mean we just throw the whole concept on this scrap heap? And absolutely no, and I think that what we're seeing with a lot of people is some significant problems with living far too long in that glycolytic lactate-producing pathway. Yes, there is some magic that comes out of that pathway at the appropriate points, and then just like the magician's apprentice, you get too damn much of a good thing and you need to think about some other ways of slicing and dicing that, particularly if we have someone who is autoimmune and a shift worker which I'm guessing that Jenny is definitely a Firefighter so there's almost implicit shift work, and then I'm thinking potentially like Hashimoto's thyroiditis underlying that stuff.

So we just need to be more sophisticated about how we apply this otherwise good technology and hopefully receive a little less kickback from simply trying to help people.

Andy Deas: Yup.

Robb Wolf: That would be phenomenal.

Andy Deas: Next question from Joe. This is problematic when they question T Nation Robb. You know what happens.

Robb Wolf: Oh, man, yeah. So much commentary on that.

Andy Deas: The internet police are out to get you. Anyway, Joe says, "I was looking at T Nation's site and one of the heavily marketed supplements includes Power Drive, a focus, attention, and mood supplement. What is the chemist's take on this formulation and what are possible Paleo alternatives? On a similar note, what is the Paleo take on supplements that boost testosterone? i.e., Biotest's Alpha Male. I'm not trying to get you to endorse or slam any particular company, I am just aware of this and the links were close at hand. Awesome show. Thanks for the info."

Let me just note in my mind by mentioning specific names, you are forcing Robb to endorse or slam.

Robb Wolf:

Absolutely not. I will skirt this issue in a crafty manner.

So the stuff in Power Drive is some L-tyrosine and then it also has an acetylcholine reuptake inhibitor constituent called DMAE, dimethylaminoethanol bitartrate, which is some cool stuff. It definitely is kind of neurologically stimulating. The Power Drive is a not bad supplement, but the thing is, and this is maybe where the T Nation police come after me, you're basically paying a little bit more. It's like \$24 for 30 doses of it and so you're paying just a smidge under a dollar per dose.

But DMAE, you can a third cheap, like Source Naturals is a good company that makes DMAE if you wanted to buy that stuff. DMAE bitartrate is a good way to go. It's very, very inexpensive. I think the dose that they add in the Power Drive was like 200 milligrams tyrosine in bulk. It's third cheap. So you could take 3 grams of tyrosine. You could shoot down 200 milligrams of DMAE and you could probably do that whole supplement bolus for probably about 25 to 30 cents, or you could pay almost a dollar for it. And I think the formulation is cool.

The thing is though is since I've been in kind of CrossFit Land for so long and because so many of the folks that I work with are usually kind of borderline frying their nervous system because of overtraining and stuff like that, I don't find a ton of need for neuroenhancement that would go along with heavy lifting and stuff like that. Like coffee does kind of the same thing. DMAE works via a different pathway. But I don't find too many people who lack the ability to get up for a session unless they're overtrained.

So that's my only caveat with this. I think this stuff is good. I think it could be good for a legitimate max effort gig. It could be good for a contest. But then if you use it at contests, you need to use it a little bit in practice because it will definitely get you much more focus, much more neurologically kind of up and all that stuff, and you need to figure out how your body is going to respond to that.

So I think it's an okay product. I think you need to be smart about how you use it because I think the potential for like overreaching, overtraining particularly on the CNS is very real and I think you can find it for cheaper elsewhere, but I think the formulation they have is just fine.

Testosterone boosters, when you really root around on the information on this stuff, like it doesn't really seem to do a whole lot for testosterone specifically; but I think a lot of these things like Tribulus and some similar

almost Adaptogen plant extracts, I think that they're doing a whole lot with dopamine and the brain, and the dopamine ends up having some really nice effect on kind of training intensity and on libido. And so I think they're helpful in that regard.

I don't think you're really getting a whole lot of mileage out of a legitimate bump-up in testosterone levels. Like the literature doesn't really seem to support that. But I definitely noticed like bump in kind of like training intensity, bump in libido when I've played around with this stuff, and so I think that that's where it's all playing out. And so in the long term, I think that they're probably okay to cycle in. Particularly, you start getting like 35, 45, 55 and older dudes. Possibly even some females might benefit from some of the like luteinizing hormone effects.

Andy Deas: You did a good job walking the line, Robb. Good work.

Robb Wolf: Thank you. Thank you.

Andy Deas: You may be invited back to T Nation again. Who knows?

Robb Wolf: I don't know if I want to go back there, Andy. The guys were mean. There was a dude this week, Eric, I forgot his last name, but a big strong dude, strength coach, really good background, has worked with Pollack, M.D., Pascual, Cordain; and he basically put up a low-carb intermittent fasting, Paleo type lean out program. He had some brain sheen amino acids in there and all that stuff.

But essentially, he cites the Paleo thing. He never says Paleo. He cites people who are very Paleo in orientation, particularly Cordain. And there were three or four pages of comments before, you know, and everybody was like, "Oh, this sounds great. This sounds cool." And then I pinged on there. I'm like, "Really good article." And then I was like, "Hey, where are all the guys who were like totally kicking my ass a couple of weeks ago?" And then as soon as I popped up, there were like six guys that popped in and they're like, "This Paleo stuff is ridiculous. Ahhh!" And I was like, "Okay, this is the T Nation I know and love." As soon as you get somebody who is a successful coach, good athlete, seems to do a good job helping people and wrote a pretty good article, let's publicly attack this guy so he never wants to come back. So it's pretty awesome.

Andy Deas: I think that's the way the world works, Robb.

Robb Wolf: Totally dude.

Andy Deas:

All right. Next, we got a question from David.

“Robb, I’m currently in my 4th year working towards Bachelors in Science, hopefully with Honors in Physics; and having gone through a graduate program yourself you understand the mental demands of the hard sciences.

From my understanding the CNS runs on glucose. How does one ensure that my brain is running on optimal energy levels as well as energy for training later in the day but not spiking my insulin levels from eating too much fruit? Can the glucose come from veggies or complex carbs or just fruit? Keep in mind my training is focused on hypertrophy and I’m aiming to get as low body fat as I can.

On a side note, I really appreciate your lengthy blog answers and your more science-based approach to nutrition in contrast to the more anecdotal sounding diets that are common in men’s magazines.”

Robb Wolf:

Thank you. You know, a good place to look for some insight in this is actually the gestational diabetes piece that I did pretty recently where I’m basically looking at like the oral glucose tolerance test and some different things like that. But this whole thing that the central nervous system runs on glucose is partially true. There are some neurological tissues that will only run on glucose, but there’s other neurological tissues that will also run on ketone bodies and actually run great on ketone bodies, and then there’s also the rest of our system that can either run on glucose or fats/ketone body metabolism.

And so the thing to do in my mind, and Mat Lalonde and I were having a nice talk about this yesterday, the problem arises if when you take a bolus of glucose, your blood sugar goes up and stays up, we’ve got a problem. We’ve got overinsulin resistance brewing.

And so this middle line that I think I arrived at a long time ago and we’ve kind of been back and forth on this when we think about like cyclic low carb diets and different things like that, is that you in general are going to eat meals that are protein and fat, lots of veggies in there so you’re going to get a little bit of carbohydrate from veggies, you get a little carbohydrate from gluconeogenesis post workout when and where appropriate, you take a larger glucose intake via like yams and sweet potatoes, maybe like plantains or something like that, and obviously built around leanness and work output needs and all that sort of jive.

But then what you have is a body that runs very, very efficiently with regards to glucose because it mainly runs on fat; and if you run efficiently on fat, you don't run the danger of blood sugar crashes. You just can't crash with regards to blood sugar because your body is being crafty with it. It is sparingly running on blood glucose and this is why people on a ketogenic diet or a quasi-ketogenic diet have so much energy and they don't lose cognitive function and whatnot because the amount of glucose that's being produced by the liver moment to moment is enough to maintain the brain. The rest of the body is largely being run on fat, and even part of the brain is being run on fat via ketone bodies.

So there's kind of a middle ground that you need to play with this. Some people legitimately I think run a little bit better on a little bit higher carbs. If somebody is training really, really hard, particularly kind of CrossFit metabolically demanding type of stuff, they're going to need some more carbs post workout. Nutrition is the time to take care of that. But then beyond that, you don't need to sweat it too much. Eat lots of fat. Eat plenty of protein, lots of vegetables, some carbohydrate in the post workout window. Make that carbohydrate appropriate to the amount of the work that you did. Basically you need to earn your carbs and then you're good to go. It's not much more complex than that.

Andy Deas: Yes, and learn the difference between yams and sweet potatoes. That is an important side note.

Robb Wolf: I'm still confused on that myself.

Andy Deas: I've actually seen some grocery store chains that are labeling them wrong because people I believe are really trying to get yams but they would think they're sweet potatoes. So I've been to a couple of places where they have actually labeled the yams as sweet potatoes.

Robb Wolf: Hmm, bastards!

Andy Deas: I know. I feel like somehow you're involved in confusing people. Somehow someone is perpetuating this problem.

Robb Wolf: That sounds like something I would do for sure.

Andy Deas: Anyway, moving on.

Robb Wolf: Yes.

Andy Deas: Next set of questions from Jason.

“Hello Robb. My eight-year-old son has been diagnosed with Oppositional Defiant Disorder (ODD), which basically means that he’s a pain in the ass. The result is massive quantities of stress-induced cortisol 26 weeks a year for every other member of my family.

I have this theory that nearly all childhood behavioral issues are really autoimmune disorders in disguise, likely related to transglutaminase as you've alluded to a number of times with other diseases. A literature search, however, does not reveal anything.

I was hoping you could add something to or destroy my theory as my stepson's stepmother is a steeped in conventional wisdom nurse, who feels the only possible cure is experimental-level drug use.” Wow! “Obviously I need some sort of medical proof to get them on the board with his adopting a Paleo diet as he currently gets lots of whole grains at their house.”

Robb Wolf:

You know, I guess my Google foo is possibly better than Jason’s. I just put in oppositional defiant disorder gluten. Maybe Jason was digging too deep here, going straight for transglutaminase first, although I did find some stuff of that also.

I mean what I tracked down was largely anecdotal type stuff. You get a lot of like message boards frequently very related to autism and people talking about gluten-free, casein-free diets improving ODD, oppositional defiant disorder. And so I don’t doubt, like I’ll guarantee you that there’s some sort of a dietary element to this, both probably with regards to some inflammation on like a leaky guide autoimmune response kind of gig, blood sugar crash due to -- we were just talking a second ago about how where in a lower carb diet we’re effectively immunized against blood sugar crashes.

And you think about it as an adult when adults suffer blood sugar crashes because we have a little bit more steeping and social mores like we don’t just sit down and throw tantrum typically. Some people kind of sort of still do, but it’s just less rare. Kids aren’t as steeped in that and so they’re just more likely to like express their internal dialogue more directly. And then also, if you had a kid that’s got a little bit of kind of autism/ODD type thing I guess going on, then they’re going to be even more likely to do that.

And then God help me, but I’m also going to throw one other thing out there. Like I think all of the nutritional stuff is legit. Like there’s definitely

stuff that needs to be addressed. If people don't suffer blood sugar crashes, if people aren't suffering from food intolerances, they generally feel better and they're more enjoyable to be around. There's no doubt about that.

And I'm going to go out there and I'm going to create a ton of hate mail probably, but there seems to be this thing in our -- I'll throw it to like probably 28-to-45-year-old parents out there. You guys don't tell kids "no." You are like risk averse at telling kids "no," giving them like some sort of boundaries and telling them, "If you freak out again, there's going to be sort of consequences and actually stick into that." Like the number of parents I know that actually tell their kids "no" when the kids melt down publicly is like zero; and I think that that's a big chunk of this thing too.

We'll probably definitely be at six listeners after this show now, but I don't doubt that the nutrition part of this is a big piece of it and I also think that setting up some decent banter. And I'm not saying like beat the kids senseless. No, absolutely not. You can do timeouts. You can do whatever. But there needs to be some sort of a behavior consequence theme and it may be hard and it may be a lot of work, but to start effecting some change in that way, I think that you need to head down that direction; and I think a dual-pronged approach, a nutritional change, and probably holding the kid accountable would probably result in some remarkable changes.

And the nurse who wants to start experimenting with drugs first, how about doing some nutrition changes? How about practicing the least invasive level of medicine that we can do, which is some nutritional intervention, which has some possibly still anecdotal but certainly some compelling issues to it, and let's try that before we try putting the kid on some meds? How about that? So Robb is fired up now and nobody will ever listen to this show again, but those were my thoughts on that.

Andy Deas: You probably had a lot of coffee today.

Robb Wolf: I didn't even have that much coffee today. So maybe I could use a nap. I don't know.

You know what, Jason, if you play with that, I would really like to hear on both sides of that. You know what I mean? A lot of this stuff, I end up talking a ton about like kind of the biochemical metabolic elements of this stuff, but there's a reality that all this feeds into a free living life in which we have challenges and demands of family and society and all

these different things, and I think figuring out, okay, so you have a kid who's a challenge to parent quite frankly, it sounds hard. It sounds like there's some difficult stuff here and there's some kickback from the spouse involved with all this stuff. It would be nice to know what you do both on a biochemical mechanistic level, how do we address the nutrition, and also it would be really valuable to hear what did you try like on a parenting level and a social level to try to affect some change with the kid. I think that would be hugely valuable for folks to hear about and to learn from.

Andy Deas: Yup. All right, Robb. We're moving on.

Robb Wolf: Okay.

Andy Deas: I got a question from Mike. He says, "Hey guys. Love the podcast! I'm a 29-year-old, CrossFitting, Zone eating healthy male moving towards Paleo lifestyle. I have been really restricting my grain and gluten intake the past couple of weeks. I continue to eat dairy and nuts.

My father and I, and his father before him, have suffered from stricture of the esophagus and dysphagia. For me it started around puberty and occurs especially when eating meat. The bolus of food gets stuck in my esophagus and I either have to regurgitate the food back up manually or hopefully drink enough water fast enough to force it down. Three years ago I was diagnosed with..." Robb, I'm going to let you read that.

Robb Wolf: Eosinophilic esophagitis.

Andy Deas: Thank you. "Via an endoscopy with biopsy. I was given Flovent to swallow, not inhale, for two months which stopped a lot of the symptoms for a long time. Since then occurrences has been few and far between but still happen. My dad has to have his esophagus ballooned every four months and I don't want to get to this point. Do you know of any specific foods that would cause this, or would a Paleo/elimination diet be the only way to go? Thanks again! Keep up the great work. I look forward to getting the book."

Robb Wolf: So here's another great example. So a guy who's probably a pretty good athlete, eating pretty well, but hey man, why bother going fully grain, legume, and dairy free, because I've got pretty good performance? But this whole eosinophilic esophagitis, eosinophils are one of our immune cells. They are typically mainly focused on parasitic infections. They do other functions but they're frequently found and responding to parasitic infections.

But then interestingly, in celiac, because we end up with a damaged duct lining and subsequently intact large good particles including WGA, wheat germ agglutinin, going into the system as well as like LPS foreign bacteria, and different constituents making their way into the body, we get an upregulation in eosinophil activity which would be typical of a parasite type infection like Candida or tapeworms or some blood-borne pathogens that you could get in like the Philippines or something like that.

And so it makes sense that kind of a celiac type situation, you would see eosinophil activity. And then like I had mentioned before, this GI problem that we see with regards to particularly gluten intolerance but other lectin related to grain intolerances is that we end up with a progression of digestive problems up and down the whole digestive tract, typically culminating in some sort of a dysphasia, an inability to swallow with people in their later years. Usually earlier on, we end up with gallbladder issues and whatnot, but when you do a little bit of Googling eosinophilic esophagitis and you put in gluten or celiac, then you have tons of linkage on this.

We can link to some of the show notes on this stuff, but I'll guarantee you that going grain, legume, dairy free will put this eosinophilic esophagitis in remission. And the food that is causing it is mainly gluten, although dairy can be problematic because of potential lectin contamination. Other grains could be potentially problematic. And so yeah, you could fix this whole problem by pulling all these foods out of your diet, potentially reintroducing them up to the level that you find some problems, but I would absolutely keep gluten out of your diet the rest of your life because this has a high likelihood with --

Because you have the inflammation along the esophagus, along probably the whole of the GI tract, whenever we have the inflammation in a tissue, we have greater rates of tissue turnover and we have a higher likelihood of cancer. So you have higher likelihood of esophageal cancer, of GI cancer. So this is one of those other side problems with regards to gluten and other grain intolerances. If it sets up an inflammatory condition, it's not only an autoimmune potentiality. In this situation, it's a choking potential because food get stuck because his esophagus is inflamed, but it's also a potential carcinogen. So I would definitely give some thought to maybe modifying the good and weighing and measuring.

Andy Deas:

We'll all fix it, Robb.

Robb Wolf: Again, weighing and measuring itself is not going to fix it.

Andy Deas: You could have all the dingdongs you want, Robb. Don't tell anybody I said that.

Robb Wolf: Our friend Charles in BTB CrossFit, he has this gig where when they had the Barry Sears piece where he is this like old lab and everything and he is like, "I was working with Evander Holyfield. And I said, 'Evander, what's your favorite food?' and he said, 'Hamburger.' I said, 'Okay, Evander. You can have a hamburger with the bun and five fries.'" And so the whole weekend in Atlanta, the joke was "Five fries" with the hand motion of five. "Five fries."

Andy Deas: 'Cause you may overeat the ribs, right? That's what's going to happen.

Robb Wolf: Yeah, 'cause you're going to overeat the ribs and all would be lost then.

Andy Deas: Poor Evander, getting pulled in the mud along with Barry.

Anyway, question from Lori. "Hi, Robb and Andy. First I want to say my husband thinks you are gods." I'm not even going to address that statement other than the last.

Robb Wolf: We need to expand his social network for sure.

Andy Deas: Check! "That said I would love for you to answer a quick question. We get sides of grass-fed beef every year and I've just started to render the fat. This year I have also ordered a pig from a great farmer off the Eat Wild website and want to also render the fat from the pig. My husband is worried that there is too much Omega-6 in the pork fat. He is working hard to keep his Omega-3 levels up. So, is rendered pork fat good or bad? Is rendered beef better or best? Sadly I am only the wife and have no valid input he would listen to.

By the way, I've been doing Paleo for almost a year now and the entire family loves it. Thanks for everything! We have been listening to the podcast since the beginning and you are doing a great job.

P.S. My husband said I'm not giving you enough info on the pig's diet. They mainly forage, followed by spent grain, brewing byproduct, juice and wine making byproducts, apples and wine pomace, expired produce and dairy from a variety of sources, and last some commercial hog feed (info directly from the farmer's website)."

Thoughts on this, Robb Wolf.

Robb Wolf: You know, if you got right down to brass tacks, probably the grass-fed tallow is going to be a better Omega-3/Omega-6 ratio, but I'm willing to bet that that pig rendered fat would be damn yummy. So even though it's not like 100% Paleo fed or whatever, like 100% fruit and veggies and everything, I'm guessing that that's probably going to some really good quality stuff. I would render it down personally.

Andy Deas: Yeah.

Robb Wolf: So yeah.

Andy Deas: Cool. Pig and fat legit. That's what I'm going to say.

Robb Wolf: Indeed.

Andy Deas: Cool. Next we got a question from Brian. "Hey, guys. Long time listener, first time asker, male, 35, focus is body comp, follow original Art DeVany workout style, 6 feet, 200 pounds, mid-teens body fat due to recently corrected poor habits, headed in the right direction, down from 205 and stronger in recent weeks.

One, if I find myself sitting down for a cheat meal (e.g., pizza), am I better off trying to add a salad or grilled chicken to the meal assuming it won't reduce pizza consumption based upon my experience? Or am I better off just enjoying the pizza and then trying to get back on track ASAP afterwards because the insulin shock will stuff most good nutrients and protein into body fat anyway?

Robb Wolf: You know, interesting again. In general, I would just try to get people to go gluten free. If the gluten really legitimately isn't that big of a deal for you, I wouldn't really sweat it all that much, but we get some deeper stuff here as the story goes along just with regards to cheat meals and everything so we can dig in a little later. But in general, if you know it's not going to stop how much you eat, then probably eating more on top of it in fact may not be a lack of insulin. I'm just going to go out on a limb there and say that eating even more food is probably not going to help.

Andy Deas: Although I comparably follow the latter logic rather than the former, but anyway.

Two, related clarification requested on intermittent fasting. I've seen people utilize IF after a cheat meal. Brad Pilon and John Barban tend to

utilize IF to manage overall caloric load. They're less concerned with Paleo, et cetera. I suspect people would be better off getting their ducks/cats/hormones in a row with Paleo a day or two or three if they are going to utilize IF, but the other side of the argument might be that IF may be an opportunity to the body to regroup insulin free. Again, focus is body comp.

Robb Wolf: So, I mean this one is just so nebulous. It's almost just kind of like so you want to eat huge and then starve yourself to make up for it later, right? I guess that works. I mean if you do a massive overfeed today limit your food a little bit tomorrow to make up for it. Yeah, that generally works. It still to some degree goes back to the quality. The food is going to have some bearing on this with regards to like gut irritation and different things like that. But I mean if you way overeat today then yeah, minimize some food tomorrow and you'll probably finish off somewhat okay when it's all said and done.

Andy Deas: Robb, you know that's not true. Very seriously said, if I weigh the dingdongs, I will be fine. It doesn't matter.

Robb Wolf: Five fries.

Andy Deas: Five fries.

Robb Wolf: Evander, you can have five fries.

Andy Deas: Oh, my lord! Anyway, "A couple personal notes, which you don't need to address, just to stuff in the files," and I think we should just read this 'cause of some interesting stuff.

Robb Wolf: Yeah.

Andy Deas: "Really appreciated your advice on IF, regarding only utilizing it if everything else is in place. I've since stopped IF when work picks up, my food is off, or my 5 month old is conspiring against my sleep, and that has helped greatly. I now mainly use IF to avoid bad meal options, which shortened the fasts to 16 hours or so, and my body seems to feel less stressed from IF as a result. Plus, I found that 16 hours makes it easier to control the fast-breaking meal.

Robb Wolf: That will totally make sense. I mean this is one of those things that working with people in shift work and trying to really chase CrossFit type stuff. Like, too much of a good thing is too much of a good thing. So that's

good to hear that reeling it back in and using it in an appropriate, smart way is helpful.

Andy Deas: Yup. Second one: "I've come to realize that my planned cheat meals, even if I shoot for 90/95% Paleo, completely unravel my efforts, probably because unplanned cheat meals tend to pop up in addition to the planned ones. I spent two weeks weighing/measuring/tracking nutrients to see what was going on, and my eyes popped at what I was really doing to myself. Sometimes it is hard to argue against math."

Robb Wolf: Yeah, and this is where like I just -- I question that whole thing.

Andy Deas: It is funny.

Robb Wolf: I question that whole thing of being like the heroin addict who is tying off and melting the stuff down and like the whole ritual who's like, "Oh, my God. I'm going to go out and get my shoes on this weekend." It's like if you go out and like you want to have some nachos or do pizza and beer, then go do it. I just generally eat well. Like the success that I've seen, the people who make this stuff non-neurotic and it sticks long term, you generally well, when an opportunity comes to kick your heels up, then you kick your heels up and then you're back at it. And I think when you start getting in and like planning derailments then it's huge. Like you go off the rail so hard you barely even come back on.

And Mat Lalonde and I were talking yesterday and I alluded to a little bit of this earlier, but I think some of the failings historically of like natural hormonal enhancement and the metabolic diet and different stuff like that, and even to some degree what will stick to Zone in this is that these diets to some degree try to be all things to all people. So the cyclical carb diet say, "Monday through Friday or some permutation on that, eat carb, eat protein and fat, and then during these narrower windows of time, you can just freak the hell out and eat whatever you want."

And it just doesn't work. It kind of sort of works but the downside is that Mat and I were talking about this a bunch. When you eat generally low carb, your ability to store glycogen may or may not be effective. So then, when you go absolutely bonzo crazy on carbohydrate intake, that may not be all that healthy of a thing to do, and it's probably not that damn shocking. It's like okay, so I go eat a bunch of cheaty food. It's going to be bad for me. That's not that surprising whether it's under a cyclic low-carb parameter or not.

But where I had seen these things fail is when people try to emulate the like huge carb refeed on the weekend or the singular meals or whatever instead of just simply driving the boat by a basic deal of most meals are protein, veggies, and fat; post workout, consume carbohydrate based on work output and body composition needs; and be somewhat moderate about it; and when people start doing that, stuff starts working. And so I am seeing a little bit of a moderation approach but it's not a moderation approach based out of crappy foods, which is what the Zone's failing is, which is that it's kind of like again, "Evander, five fries." It's like you can't do that. If you're going to go out and eat bad food, is it better to eat less bad food? Yeah, obviously.

But it's just kind of funny. On the one hand, obviously, moderation works. On the other hand, some food quality stuff is certainly important. Where you find your happy place with this, I don't know. You just got to kind of play with it and see like there's not really anything that I don't eat except for gluten stuff because it wrecks me, but I don't really have things all that often.

Once every six months, I'll have some ice cream, but I just honestly don't want it all that much more. Like, I really like feeling good. I like normal blood sugar levels. I like being productive in writing and achieving stuff, and that's just what I like doing and I'm less fired up about food. Other people are really fired up about food and that makes it more difficult.

But I don't know. I mean definitely finding some sort of a middle ground with this jive instead of like planning the cheat meals like a hookers and cocaine binge, I think people do better with it. Let them pop up. Let them be organic. Let them kind of be natural. And then you're pretty good from there.

Andy Deas: The hookers and blow binge never works out, Robb. That's what I just heard.

Robb Wolf: You know, there's always some downtime to it no matter how you try to dress that one up.

Andy Deas: That reminds me I'm still waiting for some people listening to this podcast to post their blog about what they really think about the primal blueprint, 80/20 rule. So I'm just going to throw that out there and see if someone posts that blog soon.

Robb Wolf: Cool, cool.

Andy Deas:

Moving on. We're moving on. We'll leave that one alone.

Question from Tim. "Hi, Robb. I'm 6'7" 225. I'm looking to start bulking and get back up to around 235-240. I just started the Paleo diet and I literally jumped into it. Lost about five pounds due to the diet and adding in more cardio; but now that summer is over I'm ready to get my weight back up. How do I do this with the Paleo diet the safest and most effective way?"

A little background: About four years ago I went to the doctor for a standard physical for baseball. While checking vitals they found my blood pressure was high and had a history of being high the past few times I went. Considering I played college baseball, ran 2 to 3 miles a day at that time and worked out five days a week it didn't add you that my blood pressure would be so high. They did an extensive amount of testing and found out that I had a blocked ureter and that my kidney had shut down to working at only 5-8%. Later that year my kidney was removed and I feel great besides being left with a scar in the shape of an "S" on my back.

Now that I only have one kidney I need to monitor the amount of protein along with sodium and other compounds I put into my body. How much lean protein can I get away with eating? Are there any other products that I should be looking at to improve kidney function? I know last podcast you talked briefly about adrenal fatigue and a few products to help with that. Is that something I should consider looking at? Thanks a lot for your help. Love the podcasts."

Robb Wolf:

So here again, like I'm not Tim. I'm not in his shoes. But if I were, people can't live with one kidney. Obviously they do but the reason why we have two is that we generally place enough demands on two kidneys that we need two functioning organs. When you get relegated to one, it places a stress on that kidney.

And I would be reticent to recommend some sort of an aggressive mass gain for someone in this situation. I would definitely eat Paleo. I would eat on the low-carb side of things because carbohydrate damage -- advanced glycogen end products that damage the nephrons and the kidneys is a real legit problem. I would eat on the lowish-carb side of things; probably have protein somewhere on that lower end of like 0.5 to 0.75 grams of protein per pound of lean body mass.

So we're down in the like the lowish side of the Zone or even where we would see some recommendations coming out of the primal body, primal mind sort of things. This is not going to be optimum in general for like a

massive bodybuilding type approach, but it is absolutely going to be good for maintaining your kidney function over the long haul.

If you had two kidneys, I would be less concerned about recommending more protein in this situation, but the fact you have one kidney and the fact that that one kidney is already to some degree a little bit impacted, I would probably run like the 0.75 grams of protein per pound of body weight. I would run a mainly vegetable-based deal after that. Post workout carbs seem okay. I would lift heavy; try to get as strong as you possibly can; do some hypertrophy works certainly mixed into that, but I would mainly focus on being strong and athletic and let the body weight go where it wants to go but have really excellent body composition within all that.

It's a great question and this is definitely a place where for me, I would immediately, when we start considering that performance, health, longevity like triple point, man, I'm looking health and longevity immediately because we've got a strike, maybe two strikes out there already because of missing a kidney. Like, I wouldn't want to mess around with that personally.

Andy Deas: Yeah, and I think on a related topic, when you think about sports, and I'm considering CrossFit a sport at this point for the most part, like I don't necessarily associate health with that long term just like I don't associate health with playing high levels of professional football or whatever. So I'm always cautious at this point when people are really shooting for some particular performance goals without having that talk about "Okay. Well, how is that going to impact the rest of sort of your triple point there?"

Robb Wolf: Right, right, absolutely.

Andy Deas: Yup. Robb Wolf. That is it. 58 minutes, 24 seconds.

Robb Wolf: Woo-hoo! We did it.

Andy Deas: Yeah. And assuming we get the podcast slips and thing working, this will be distributed on iTunes tomorrow, Robb. We're live.

Robb Wolf: Sweet. Right on.

Andy Deas: All right, man. Thank you very much for your time. That's it for Episode 47. We'll talk to you next week.

Robb Wolf: Thanks, Andy.

Andy Deas: Nice to see you, Robb. Bye.