

The Paleo Solution

Episode 51

Andy Deas: Robb Wolf, Andy Deas, back with episode 51, The Paleo Solution. What is shaking?

Robb Wolf: Dude, I am still running on European time. I'm going to bed at 6:30 or 7:00 in the evening and waking up at 3:30 in the morning. I'm keeping Butte County methamphetamine addict hours.

Andy Deas: So many things wrong with that statement. How was the trip?

Robb Wolf: It was awesome. It was awesome. Denmark was totally amazing. I was massively jetlagged when we first got there, but it was super, super cool. I got to hang out with Nicole and Franklin who used to own -- be part owners in CrossFit Oakland. Super cool people. Franklin is also a chemist, so he and I get to bro out on chemistry-related stuff. And then we went to Italy and went from Milan to Florence and while taking a train ride from Milan to Florence, I was sitting next to a nun who was coughing on me incessantly, and I swear she had ebola. So I kind of got a little bit sick from that. But Florence was totally amazing. We had really good food. I had some really kick-ass road forgers from just eating through Italy and whatnot. So that will be super cool to put up.

Andy Deas: Nice.

Robb Wolf: Yeah.

Andy Deas: You're heading out this weekend, right? So this episode will be posted the day you get back I guess, right?

Robb Wolf: Yeah, yeah, so we're going to Anaheim doing a gig for Naval Special Warfare this weekend, and then we are doing the NASA gig a couple a day --when this podcast posts, it will be a couple of days after that. So yeah, hoppin', man. I'm glad to be home with the gato though. He's been very needy.

Andy Deas: He missed you obviously.

Robb Wolf: Yeah, yeah, we have a pretty good rotation of people coming in taking care of him while we're gone, but it's never quite the same.

Andy Deas: So Robb, while you were gone, we had a gentleman, Mark, and his wife, Aubrey, come up from Sacramento, big fans of the podcast. Did a little consult work on his -- some of his starting strength type stuff. And he walks in the gym, and the first thing he says to me, he's like, "Huh? I was expecting a much bigger beard."

Robb Wolf: I heard about that.

Andy Deas: And so I was like, well, Robb Wolf, you probably expect like ZZ Top? I don't know, man.

Robb Wolf: Which I thought was super cool finding the ZZ Top concert poster in Denmark. That was pretty sweet.

Andy Deas: So people are out there listening, Robb, and just for clarity, my beard is not as long as ZZ Top.

Robb Wolf: It is not. It is not. It's still impressive though. It's damn impressive. That's all.

Andy Deas: Well, I got to shave it this weekend because I'm going -- I'm going to see and Dallas and Melissa. You know, Dallas will have like a perfectly coiffed beard. So I'm going to have to clean myself up a little bit so I don't look like a wooly.

Robb Wolf: A schlep.

Andy Deas: Yeah.

Robb Wolf: Being around Dallas always makes one feel schlep. He just cleans up well. So, cool.

Andy Deas: Cool. So we got a cool group of questions. The first one, Robb, is from our friend, Nathan, who posted a hilarious picture comparing myself to Chris Pontius from Jackass on his Facebook page.

Robb Wolf: That was hilarious. That was super cool. Yeah.

Andy Deas: So just for posting that, he gets the first question in the episode.

Robb Wolf: Perfect.

Andy Deas: So here we go. "Hi, Robb and Andy. I wanted to ask a question for the Paleo solution about leaning out. I am currently returning from my two-

week honeymoon in New Orleans and Little Corn Islands and a two-week business trip to Oahu." I'm going to insert the editor's note. I really bleed for you buddy. That sounds like a rough month.

Robb Wolf: Seriously.

Andy Deas: So anyway, "My diet went to hell in a hand basket, and I might be a borderline alcoholic from the copious amount of booze I drank in all three locations. Needless to say, my sleeping habits have been trashed as well. I consider myself an insomniac, where sometimes I force myself upstairs only to lie awake with my thoughts bouncing around my skull and eventually falling asleep a few hours later. All right, here's the meat and sweet potatoes. I'm 28, 6'2", 210. I'm not sure what my body fat is but it's not Brad Pitt-esque for sure. I get between 4-8 hours a night depending on my undiagnosed insomnia.

My goal is this: Sweet freaking abs! Vain, I know, but I could give 2 shits about elite level performance and especially ever winning or striving to be in the CrossFit Games. I just want to look badass! I think most people are lying if they say they don't care about looking rad naked. I am not fat by any means but no one is confusing my mid-section for Mr. Pitt's. Here is what I think you will recommend. Get at least 8 hours of sleep, Paleo eating ala 1 gram of protein per pound a body weight with minimal or no fruit, no alcohol (oh, God, please don't take away my tequila), natural calm to get me sleepy, vitamin D and fish oil supplements. Am I right so far?"

Robb Wolf: Yeah.

Andy Deas: Let's start there. Good?

Robb Wolf: It is super good, and I just have to back up a little bit. Little Corn Island is just like as off the beaten path as you could get, but the booze there is really amazingly good like Flor de Cana, 750 milliliter bottle of rum is \$3. So it is really easy to become an alcoholic there. Back to our regularly scheduled program. Yeah, I mean this all seems totally spot-on. Attack sleep, Paleo, keep carbs on the low side for the most part, maybe post workout carb spike here and there, vitamin D, fish oil, good to go.

Andy Deas: So here's the money question, Robb. "Training: ??? Wendler 5/3/1 program with sprints and Tabata work? Pure CrossFit main site? CrossFit football? The Marine in me tells me more cardio is better, but my inner Robb Wolf says 'Holy Cats! Limit that fracking shite!' What training,

assuming all my nutritional and sleeping habit ducks are in a row, will get me to Abs-Ville."

Robb Wolf: We totally need to do a trip and go with Nathan somewhere. I don't know where but somewhere.

Andy Deas: Then he goes on to say, "Thank you for your time and consideration. By the way, Robb, thanks for the Little Corn Island recommendation. The wife and I loved Nicaragua. Also, Andy, your Facebook profile picture kinda reminds me of Chris Pontius a.k.a. Party Boy from Jackass. You should be a stunt double. Thanks again and I look forward to your thoughts."

I actually need to take his picture that he made and make that my new profile picture because it's --

Robb Wolf: That would be awesome.

Andy Deas: It's hysterical. So anyway, Robb Wolf, we'll throw it out to you first. Training for Nathan's goals of Brad Pitt-like abs.

Robb Wolf: Yeah. I just had a consult with a girl yesterday. Actually, a type 1 diabetic in trying to get a handle on her blood sugar levels and on her body fat levels and all that, and she's a real athletic, a good athlete. But it's just interesting to get really, really lean like the work output actually needs to be in this more moderate area like much more along the line of classic like bodybuilding or strength work mixed with a little bit of sprint work.

You could certainly do some interval training but -- Clarence Bass had a great piece on some intervals where he was talking about the need to periodize this stuff and say like if you were going to do some rower intervals. Your first week on the rower you might do three to five 500 meter rows but with a, say, like a two-minute 500 meter row split. So not really that hard, and then the next week maybe shooting for like 150 split, the next week maybe like 140 split, and you're keeping the intervals the same. So like ramping that intensity up over time and then providing some unloading and then some changing and all that sort of stuff.

If you subject your body to a really massive amount of stress, you will not be able to run super, super lean. It just doesn't happen. You can run really lean with kind of a sprint, bodybuilding, sprint, powerlifting kind of combo because the loading that you're getting is of a short enough intensity that we're not really digging into that glycolytic pathway so hard that is causing a blood sugar crash, that then is being answered with a

cortisol release. And then since Nathan is already kind of showing some hypercorticism type stuff, like the head that's just kind of spinning and going and going and going, probably better to do some mellower type training. But you absolutely can get freakishly lean on this.

And this is kind of the Art DeVany-esque sprint protocol type stuff that I was doing prior to CrossFit. And we've talked about this a bunch like CrossFit filled a lot of holes in my game, and it introduced me to a type of intensity and type of training that I had never quite done before. But I also found it to be competitive in that realm at all, I was always operating at a higher body fat level than really what I kind of want to do for just vanity reasons and also for some performance reasons that were kind of related to strength to body weight ratio stuff. So I think that this is all spot-on. Nathan is totally spot-on. It's just we may need to do some sort of an intervention to get them off of the booze.

Andy Deas: Ah, Nathan. I feel like a month of boozing deserves 12 months of less boozing maybe, you know.

Robb Wolf: Maybe. Yeah, yeah.

Andy Deas: Unless you naturally look like Iggy Pop.

Robb Wolf: In which days maybe we need some Krispy Kreme, so yeah.

Andy Deas: Cool. Good question. And by the way, I just noticed Nathan put a note and asked me if I wanted to take down the Chris Pontius a.k.a. Party Boy picture, and I told him, "Heck no. that's my profile pic, buddy."

Robb Wolf: Awesome. Awesome.

Andy Deas: All right. Moving on. Next, we got a question from CrossFit Northwest, "Long time listener, first time questioner. I'm fully Paleo but only supplement with BCAAs now. Would you recommend taking a pre workout supplement like nitric oxide or the like? I'm not a coffee drinker, but maybe even that could give me a kick. Thoughts? I am 100% Paleo apart from the BCAAs."

Robb Wolf: You can play with it, but all of those nitric oxide releasers, I just -- I've tinkered with them, never really saw any type of like benefit out of it. The studies on it are really dubious. If you wanted to get probably the best bang out of anything like that, like doing 2 to 4 grams of just arginine pre-workout, that's -- the arginine is really the nitric oxide precursor, like kind of the biggest factor there. Arginine can also enhance some growth

hormone release. There's some cool stuff that can be had from some smart amino acid supplementation, but you can get completely geeked out on this stuff.

Are you eating really clean Paleo? Are you sleeping 9 to 10 hours a night? Are you supplementing with magnesium? Do you have a smartly periodized program? Like, all of that stuff is going to give you better return on your investment before tinkering with some of these really fine point type things. And then from there is some stuff that definitely works. Creatine definitely -- seems to -- for the people who are responders that really improves that short-term power output and seems to help recovery a little bit and has some nice blood lipid effects. I think beta-alanine is some pretty good stuff and has some benefit, definitely way more pricey than creatine. But I would really focus on like good nutrition, good sleep, smart periodization.

If you're not following some periodization, get a coach who can periodize for you. Dan John has a nice saying that "He who coaches himself has an idiot for a coach," and I've been an idiot for an awfully long time. And finally coming around -- I think when I finally am through with this big travel block, I'm going to have Keith Norris from Theory to Practice set me up with a program to get me in jiu-jitsu shape and try to meet some other performance goals but just giving up that responsibility of doing my own training development. And so that's all the stuff I would focus on before looking at all the nitric oxide releasers and stuff like that.

Andy Deas: But you can get some cool vein action.

Robb Wolf: Maybe.

Andy Deas: Dude, all the high school kids take that stuff, man? I'm sure it works.

Robb Wolf: I am sure it's working for them. Yeah, totally.

Andy Deas: Cool. Good question.

Robb Wolf: Yeah, a totally good question. And I like how Andy has snuck in like 15 supplement questions.

Andy Deas: Well, Robb, I'm just going to leave it alone.

Robb Wolf: Yeah, yeah. As Andy pointed out, the supplement podcast would probably -- not going to happen before 2012 so yeah, let's

Andy Deas:

Next, we got a question from Jim, "Hey, Andy. I got a question for you guys. My wife is going back to work after a year off raising our first child. Our son has been breast-fed and eats a 90% Paleo diet. We admittedly give in on occasion with crackers or bread when he simply won't eat anything else. We've looked into daycares but the affordable and even expensive ones have terrible food choices, mostly based on DCFS requirements here in Illinois.

One brilliant menu example we were given was a veggie burger with tater tots and French fries. I shit you not. The kitchen we toured at another daycare was a hodge-podge of frozen chicken fingers and canned veggies and fruit. Any suggestions on how to navigate this stuff without spending thousands on special daycare venues or expensive in-house nannies? All we want is what's best for our son, but today's institutions simply haven't caught up. Thanks, Jim."

Robb Wolf:

Oh, boy. I thought about this one a ton and maybe this would be a good one for listeners to chime in on. The really tough thing is that -- in my experience, and we don't have kids yet, but we've seen a lot of people kind of go through this stuff. The better daycares like you get into a Montessori deal or something like that -- that's getting beyond that, but - - beyond daycare but it -- the better daycares seem to -- if they have good curriculum, and they're teaching some kids some science and some art and some music, they're all completely like vegetarian in orientation.

So all the snacks are like brown rice and tofu wedges and stuff like that, which at the end the day I would way prefer that versus like Goldfish crackers and whatever else you're feeding the kids. I think grain in general are a problem, but obviously I think like some brown rice is probably less problematic than some sort of wheat containing item. It's really a tough deal because you -- any forward thinking institution like inevitably, it's vegetarian in orientation. Everybody is a hippie. Everybody is vegetarian in orientation.

You might be able to get into a situation in which you're basically like our kid is more or less grain intolerant, and then you're able to pack a lunch for them, but I think that many of these daycares have problems with that now because kids have so many food allergies. And so you can't actually bring food from the outside because it's potentially like peanut or tree nut contamination and all that stuff. I don't really know what the good solution is with that. I mean it may just boil down to you get a good breakfast, you get a good dinner in the kids. You've got more control over the weekends, and then you just do the best you can within the parameters that they have.

Try to see if they've got any type of special nutrition requirements. For sure getting a gluten-free menu for the kid would be -- I think a big move in the right direction at the very least. But I don't know. That's a really tough one to navigate. And again, maybe some listeners who have some kids and have navigated this thing personally would have some better insight on that.

Andy Deas: I got nothing to add, Robb.

Robb Wolf: Nothing? Okay. I did. It's a biggy, and I think over the course of time we're going to see things improve on this particularly like the -- at a base level like the gluten-free awareness is getting much, much better. But it's so funny even within that. I was talking to a dietician who herself had celiac, and she was really like gluten avenger, like people shouldn't eat gluten. But she was totally advocating all these gluten-free pancake products and all that sort of stuff. And I was like, "You know those things are problematic too from an autoimmune consideration." She's like, "Oh, no, they're not."

And we had this debate back and forth, and I finally shot her this paper showing consumption -- basically almost identical celiac type symptoms in kids -- basically, they were calling it rice intolerance, and it was manifesting exactly the same way these kids got it from eating brown rice and all this stuff. And she was just shocked. She's like, "I just can't believe that rice would cause this problem." And it's like, "Dude, one grain caused the problem. Why would it be so earth-shattering that the other grains are a problem?" but I still think in the grand scheme of things, the gluten is probably the big, big issue to take care of.

Andy Deas: But now they got these cool sections in the supermarket, Robb, where it's all gluten-free with the gluten-free brownies which I'm sure are healthy. You should be able to eat brownies at every meal.

Robb Wolf: It is true. I advocate it. We will have a line of those on the website tomorrow.

Andy Deas: Oh, if only that were true.

Robb Wolf: And you can have five fries with those.

Andy Deas: Five fries. Oh, my Lord! All right. Moving on.

Robb Wolf: Moving on.

Andy Deas: A question from Melanie, "Far be it for me to question you, Robb Wolf. I'm all in on everything you advocate. However, could you please take one more look at coconut sap? In particular Coconut Secret Raw Coconut Nectar. The label says it is only 0.5% glucose, 1.5% fructose, 16% sucrose, and 82% inulin. I know in a past podcast you said you thought it was primarily fructose. The link to the stuff is here. Thank you for your enlightenment on all things Paleo. I'm recovering and getting well."

Robb Wolf: Yeah. This link with the product she has linked here -- that Melanie has linked here, it does look like it's mainly an inulin product. Inulin is a long-chain polysaccharide. It's fairly sweet, and actually it has some kind of cool effects by helping to boost beneficial flora in the gut and everything. I would still -- this thing is still though a refined carbohydrate product. I mean it would be similar to maltodextrin or something like that. So I mean it -- I would still use this sparingly.

The coconut sap that I looked at previously was basically a fructose-sucrose blend. And so it was probably about 70% fructose or something like that. So it definitely wasn't all that great of an option. It wasn't something magical. This looks different. I don't know if it's a different process, if it's a different type of coconut plant. I don't know what the deal is on that, but this looks pretty legit as far as it goes. But it is still definitely a refined carbohydrate source. So I mean you can't just go wild and spritz yourself with this stuff so yeah -- or you could, maybe that would be fun. I don't know.

Andy Deas: Well, you can. You just might not get the results you're looking for.

Robb Wolf: Yeah, yeah, it's not going to be super healthy. We just keep revisiting the alternative sweetener deal. It's like Sucanat sugar and then brown rice syrup and then what's the tequila stuff?

Andy Deas: Agave.

Robb Wolf: Agave nectar and, you know. It's just thing after thing. And so now coconut is kind of a favored son right now because we're digging on the coconuts products. The MCTs are good for you. Saturated fat appears to finally be getting exonerated from any type of implication in cardiovascular disease and stuff like that. And so everybody is looking at coconut products in general, and the coconut sap deal seems to be gaining some foothold as a sweetener, but it's still a sweetener. And so you've got to use it with some rational thought. And if you've got body

complications and goals, weight loss goals or anything like that, it's still not all that great of an option.

Andy Deas: Sorry to let that secret out, Robb.

Robb Wolf: Indeed. Indeed.

Andy Deas: All right, Robb, next we got a question from a contender for the best handle.

Robb Wolf: It's a goody. It's a goody.

Andy Deas: This is a question from The Edible Justincredible.

Robb Wolf: I like it.

Andy Deas: He says, "Much like the other 12 listeners, I like booze. So I was hoping you could give your thoughts on drinking and how to best get silly. I'm not going to pretend that the antioxidants in wine make fermented grape juice the ideal Paleo beverage of choice, as much as, I'd like it to be. Sadly, I know better. So what are your thoughts on wine, tequila, clear liquors, rum and whiskey? I can thrive on meats and veggies all the live long day, but a caveman-in training needs to get his drink on every now and again. So how do I best get silly while minimizing gut-health damage? This is being asked by someone that eats damn near nothing other than locally grown veggies, grass-fed meat and wild-caught fish, cooked in delicious fats, for what it's worth."

Robb Wolf: Shoot. I thought we've covered this.

Andy Deas: Well, just like the next question. We have covered many of these. This is like -- I think sometimes people wanted to ask the same question again hoping that they get a little different answer. As the most popular recipe you've ever given was the NorCal Margarita. Every alcohol question is a good question.

Robb Wolf: Right. It's true. It's true. Let's revisit this, folk, shall we? So yeah, I mean the NorCal Margarita seems like a thing of perfection to me, the tequila, some lime juice, juice of one lime so actually a lot of lime juice. I would run equal amounts booze, any way you want to mix this stuff whether gin or vodka or tequila, do an equal amount of like lemon or lime juice. It just really enhances the flavor a lot and then a splash of soda water, and I think you're just rolling. And that to me seems like the best way to get

your booze on. We are really minimizing glycemic load. We're not really taking in hardly any type of carbohydrates.

The bubbly fizzy water helps to enhance the absorption of the booze. You take down a couple of double NorCal Margaritas on an empty stomach, and you will absolutely get a great head change, and then your protein and fat later in the night. Just try not to drink too close to bedtime so it doesn't growth hormone release. And then we have our standard of -- the best way to gauge our drinking is drink as much as you can such that it optimizes your sex life but doesn't impact your performance or recovery. And I think that's like as good a standard as you could do.

We have been tinkering with a drink option which is low carb, but it's damn yummy, and it's basically doing kind of a coconut milk -- or not coconut milk but coconut water plus -- although we did -- when Welbourn and I went to Nicaragua, we did a bunch of coconut milk piña coladas and we got fat, man. Shocker. I'll talk about that here in a second. But coconut water plus rum, and then you can do just a little bit of mint and like doing a Mojito out of that and it is really, really good.

What Welbourn and I were doing was basically taking a whole can of coconut milk, throwing that in a blender, ice -- in Nicaragua, they didn't have whole pineapple so they had some pineapple juice concentrate, and so we threw that in, and then we threw a bunch of rum in and, dude, it was so amazingly tasty. But we sat down and figured out on day 2 that we probably drank about 4,000 calories apiece of coconut milk because it was so amazingly tasty. And this is when Robb was fat. So it did not help things at all, but it was damn tasty.

So I wouldn't really recommend the coconut milk version unless you're really in a masking phase and don't really care about living particularly long, and the other options are pretty good. I mean if you like wine, go for the wine. Red wine is pretty good to go. I had some Lambrusco which is a Florence or a -- it's a wine that is typical in Tuscany and it's a bubbly, slightly sweet red wine. It's not like a dessert wine, but it's just a little bit sweeter than say like a pinot noir or something like that, and it was really, really good. I usually don't like wine all that much, but I really like the Lambrusco. So you could give that one a whirl too.

Andy Deas:

Nice.

Robb Wolf:

Yeah.

Andy Deas: Never have too many alcohol questions, Robb. That's one of the guidelines of the podcast so....

Robb Wolf: It's true. It's true. They're always very popular.

Andy Deas: All right, Robb, next question from Tom. We are revisiting this again because this is like -- this probably comes in the little question queue like 5 to 10 times a week.

Robb Wolf: Yeah, it does.

Andy Deas: Once again, "Robb, what is your take on krill oil versus regular fish oil?"

Robb Wolf: The krill oil is super cool. It's got some fat associated carotenoids. They are really, really good. Honestly, I haven't researched a ton of this, but it just makes me nervous harvesting the base of the food chain in the ocean, basically getting out and harvesting the krill which the krill is what feeds whales and fish and birds and all this -- basically, it's kind of like the higher piece of the phytoplankton in the ocean. And it just makes me a little nervous harvesting it and using it for an oil supplement.

I may be totally off-base with that. I need to do a little more research with it. But it seems to be good stuff. The Eades push it and like it. They like it because of the carotenoids that are associated with the krill oil. I've been doing some palm oil, like red palm oil, for exactly that purpose. No, I'm not getting EPA and DHA out of that, but I'm getting some of those really cool fat associated carotenoids, and I really like that stuff.

Andy Deas: Yup. Krill oil is not magic though, folks. Just so we're clear.

Robb Wolf: No, no, it's not magic. It kind of gets pushed a little bit that way that it -- it orders a magnitude better than regular fish oil, and it's definitely not.

Andy Deas: Yes. All right. Next question from Meri, "Hello, Robb and Andy. I know this topic has been covered several times in the podcast but since it's something currently bothering me I'm still asking despite having listened to every single one of your shows. What are, in your opinion, the most important things to consider lifestyle, diet, supplement, exercise and otherwise regarding excess cortisol production? I have had a saliva test four samples throughout the day taken and it revealed a wicked high cortisol and too low DHEA.

I'm a client to a clinic of restorative endocrinology in the States. I live in Finland but luckily there's Skype and I've got some specific instructions to

take some minerals. I'm lacking magnesium, zinc, calcium and some other stuff. I'm eating 100% Paleo since January 2010 and I sleep in pitch black and usually at least 8 hours. I do workout quite a lot but I've always done that. Work as an occupational therapist is stressful but motivating and fun. I just like to hear your take on things. This cortisol issue got probably started over a year ago when I was in a bike crash. Anyway, thanks again, hope to see you in Helsinki some day."

Robb Wolf:

When we look at cortisol, we can tackle this from a couple of different perspectives. Food, are we getting enough? Are we getting too much? Too little? Undereating can be a stressor. Overeating can be a stressor. Food intolerances can be a stressor, so anything that damages or irritates the gut lining can be a serious problem. So we can kind of look at what variables of food do we have? Too much, too little or the wrong types? Some sort of food intolerance kind of gig. Exercise; too much, too little, wrong duration? Andy, you could probably comment on this. After having done the OPT course, where James is very wired in from kind of a Polaquin-esque perspective of a fine -- what type of critter you are and work within that.

And so that's where for me doing longer duration aerobic work or longer duration metcon type stuff absolutely crushes me. I do much better at short powerful burst type activity, and so how you're wired up for your training and then working within that in a smart and reasonable way, a little bit of periodizations, some unloading, all that sort of jive. And then we've got like lifestyle stuff which includes work stress, relationship stress, all that sort of jive, sleep quality. Are you taking care of all that stuff? Are you sleeping in a pitch black room on and on and on?

And then it sounds like the cortisol issue popped up from a bike crash. So we had some sort of traumatic injury event. Was there some sort of internal organ damage? Was there a massive -- was he riding the edge? Was it -- or Meri? So actually probably a she. So was Meri kind of like riding the edge of something here? We just had a really cool email thread with some of the folks that I talked to via email and with the condition called Bell's palsy which is basically a facial paralysis that can be stimulated by a viral infection. And it's usually precipitated by stressful event. It's a sign that the immune system is compromised. It's not totally dissimilar from shingles.

And so those things like shingles and Bell's palsy are symptomatic of other stuff going on, and usually it indicates that the system at large was really being challenged. It was really being stressed, and then you have one kind of precipitating event that kicks things over the edge. And this

may be a little bit of what Meri had. And so probably need to do a little bit more digging, like we have a precipitating event, a stressor. What were the other lifestyle events that were going on here, lifestyle factors? How good was the food? Were you totally gluten-free? The fact that she lives in Helsinki, maybe some vitamin D deficiency. I would definitely be thinking about some potential curtailed photoperiod and all that sort of stuff.

So looking and making sure that vitamin D, tissue levels are in the 65 to 85 nanograms per deciliter range. So those are the things that pop into my head.

Andy Deas: Yeah. I think you handled it -- the one thing that I took away especially from OPT and additional to -- additionally to this thing about figuring out what type of energy systems you play best with. That was kind of his point about some of the stuff was that, not that it was magic, but there was some nice correlates about additional data points like, hey, if we make changes that we think will impact the cortisol level, we should see changes in your umbilicus measurements and all that stuff. And if not, then we need to examine other solutions rather than continuing to beat our head against the wall over and over that, "Oh, this is the right choices that we've made. This should work."

Robb Wolf: Right, right. Totally. Totally.

Andy Deas: So cool. Helsinki, Robb. Put that on the list.

Robb Wolf: Dude, I'm game. I'm there. Paleo gets some of the biggest search terms out of Scandinavia -- Finland, Denmark, Sweden, actually, a lot of activity around those areas.

Andy Deas: Nice.

Robb Wolf: Yeah.

Andy Deas: Cool. All right. Next, we got a question from Lauren, "I have been following the Paleo diet for quite some time now and am in the midst of my first pregnancy, 20 weeks currently. While I believe that Paleo diet is ideal, I just wanted to know if you had any specific recommendations. Any advice would be greatly appreciated. I will be buying the book soon."

Robb Wolf: Not really anything specific other than taking a DHA heavy fish oil supplement, staying grain- legume-dairy free ideally. I did a blog post on Paleo and pregnancy I think, and I basically just did a breakdown looking

at -- it's that paper that Loren Cordain did which was a meal plan based on -- Paleo diet built on contemporary foods and looking at the amount of vitamins, minerals, antioxidants that you get calorie for calorie out of a Paleo diet, and then comparing that if you were to then introduce any grains, legumes or dairy. And what we find is that if you introduce these Neolithic foods, you immediately decrease the amount of vitamins and minerals basically the nutrition that you were getting from the diet per calorie.

So these other foods have less nutrition per calorie than what you can get out of these other Paleo type foods. So really calorie for calorie is the most nutritionally dense way that you can possibly eat. And I can't think of a better -- the thing that you can do getting a little one started is just eating in a smart way that controls glycemic load and provides a load of nutrients, and then just providing all those brain cofactors so that the little buggers can grow as rapidly as they need to grow.

Andy Deas:

Yup. All right. Next question, Robb, a question from Laura, "Robb and Andy, I love the podcast. Thanks for doing it and answering lots of tough questions. I just finished reading *Lights Out: Sleep, Sugar, and Survival* by T.S. Wiley and Bent Formby and have a question about a statement they made related to barbecued meats. On page 176 it says: 'The average serving of barbecued or burned meat imparts to you an amount of cancer-causing particles equivalent to what you would get from smoking 250 cigarettes.'

I understand the burned meat part but what do they mean by barbecued? I'm asking because I grill most of my meats/seafood for dinner -- fish, steak, chicken, pork, turkey -- it all tastes better on the grill. Does grilling your meats -- as long as you don't burn them or cook them to death -- create the same carcinogenic compounds that they state in the book? Since reading this I've been more cognizant of not eating any part that's burned but do I need to stop grilling too?"

Robb Wolf:

Oh, man. So I knew someday -- this is something that I actually purposefully have not even mentioned, and it's something that actually in the whole Paleo scene probably around like actually like 2000, 2001, would -- when the -- the pool of people talking about this stuff was vastly smaller. But there is some information out there floating around on some websites where some food chemists look at what some of the kind of glycation products and potential oxidative compounds that are created from different cooking techniques.

And what you end up coming away from this is this understanding, and Matt Lalonde could probably and may jump in and chime in on this. He commented on -- I forget if it was an email or a -- it must have been an email that he commented on with this. He mentioned that he cooks all his food at low temperature usually in water, kind of like a slow cooker type thing because when you look at trying to minimize reactive oxygen species and any type of nitrosamine formation or some of these nastier food products that are brought about by cooking. What you're left with is steaming and boiling if you don't want to create any of these problematic compounds. Any time you get browning, you have some problematic molecules on the food from a toxicological standpoint.

So yeah, grilling ends up being somewhat of a problem. But then the reason why I've never brought this stuff up is that we're just trying to get some general buy-in from people and not totally freak them the hell out, and so if we really start talking about this other side of things with the cooking techniques -- I usually tell people as in aside, cook on low to medium heat. Don't scorch your food. And we just say don't oxidize the fatty acids in your food and stuff like that. And really what that is it's just trying to not create more of a thing about all this, but there's actually been a number of questions like this topic has just been waiting to kind of pop up. And so here it is, so we'll just kind of have to take it head on.

Grilling your food creates more problematic compounds including polycyclic aromatic hydrocarbons which can get in and like or slice through DNA and they are bad. And this is basically like the charcoaling type stuff that you see on grilled meat or veggies. You get nitrosamines which are these protein derivative compounds which are really pretty nasty from a toxicological standpoint. The higher the temperature of cooking, the more potential for browning, then the more likely you are to produce a number of these compounds.

There is a bunch of other compounds that I'm totally blanking on right now. But if you want to minimize the production of this stuff like baking things covered, not broiling but brazing by cooking stuff in water, boiling, steaming, that sort of stuff, low temperature cooking like in a Crock-Pot or something. If it's a higher temperature cooking, like in a pressure cooker, but even then pressure cooker temperatures are lower than any type of grilling or frying and stuff like that.

So when it's all said and done, I honestly don't know how huge of a deal this is. If it's just a huge deal breaker for you one way or another, it's like you really, really like grilling, just try to grill smart. Some of these infrared grills are kind of cool because it distributes the heat a little bit. You're a

little less likely of getting a flare up or a fire up, and so a little less likely to get some scorch on your food. I guess that is some stuff to consider, but in general, I don't to freak people out about this too much because it will just be like, "Oh, my God! I can't grill" and "Oh, my God! I can't fry anything," and so then they just go back to eating bagels. It's really like this crazy slippery slope with this, and so it's a topic that I've been cringing, waiting for it to pop up for three or four years and it seems to happen. So there you are.

Andy Deas: You said it first, Robb. Grilling is better than eating bagels.

Robb Wolf: It's possibly better than eating bagels, but not better than eating five fries.

Andy Deas: Nothing is better than five fries.

Robb Wolf: Indeed. Except maybe six fries though.

Andy Deas: Did you see the picture of Matt Lalonde eating the five pounds lamb or whatever on Facebook?

Robb Wolf: No, no, I didn't.

Andy Deas: You need to go -- he was visiting someone. Someone commented Barry Sears would be --

Robb Wolf: Horrified.

Andy Deas: -- horrified because he may overeat. It's possible.

Robb Wolf: Awesome.

Andy Deas: All right. Next, we got a question from Eric, "Any Paleo solutions for seasonal allergies. Looking for relief from pollen allergies without medication."

Robb Wolf: The standard Paleo diet grain-free, dairy-free, all that stuff, like, if we lower systemic inflammation then we tend to see much improved allergies. It doesn't always fix everything. Two of nutraceutical based things that you could try to do; activating quercetin can be a pretty nice -- you can't quite call it a histamine blocker, but it has some interesting modulating effects on histamine production. Source Naturals is a really good company for getting activated quercetin.

And then this is kind of a wacky one but getting bee pollen from your local area, you actually can get a little bit of a desensitization process by eating a little bit of bee pollen that is produced locally. But you need to make sure that it's locally produced because it needs to be coming from the plants and whatnot that are locally derived. And this is -- I haven't seen much study that would support this, like I've fished around for it, but there's a lot of anecdotal stuff floating around out there that the locally derived bee pollen might be helpful for some of that stuff.

So I mean get your basic Paleo ducks in a row. Make sure you're sleeping, dark room, all that sort of jive. Make sure your training is smart. I mean again, I just can't emphasize enough. All that stuff is absolutely critical because all of it is really the major players with regards to how much inflammation you're going to be experiencing. If you decrease inflammation, you're going to decrease the relative severity of your allergies, and then from there you've got some of this kind of naturopathic nutraceutical type approaches that you could do.

Andy Deas: Cool. Good question. Unfortunately, Paleo is not magic. People still have allergies.

Robb Wolf: It doesn't cure cancer?

Andy Deas: I wish --

Robb Wolf: Only Chuck Norris' tears.

Andy Deas: Yeah, only Chuck Norris' tears. Maybe we can get a line of Robb Wolf t-shirts with sayings like that. Ooh, that would be funny.

Robb Wolf: Yeah. Yes.

Andy Deas: All right. A questions from Catherine, "Hi, Robb. I'm a type 1 diabetic and have been on an insulin pump for about three years. I am now five months pregnant with my first baby and my endocrinologist cannot figure me out. He told me at the beginning of my pregnancy that my insulin usage would steadily increase as my pregnancy progressed. He also said that if I had any 'morning sickness' it could be very dangerous and cause some lows. When I got pregnant I was on a basal rate of .55 units per hour and my A1C was 7.5.

I go to the endocrinologist every other week to get an A1C done and this week it was the lowest I can ever remember at 5.7. What shocked my doctor was that I told him my basal rate was down to .25 units per hour.

Also my carb ratio started at 1 unit per 10 carbs and now I'm at either 12 or 13 depending on the time of day. Apparently, this is completely contrary to what normally happens to type 1 diabetics during pregnancy. I never did get any of that nausea or sickness either. That is also typical during pregnancy. Any thoughts on the insulin use and why it dropped?"

Robb Wolf:

Holy cats! I have no idea on this. This is a really interesting piece. We could do some more digging around later. Like I dug around on this a fair amount and didn't really come up with anything. It is totally counterintuitive because normally we see impaired insulin sensitivity during pregnancy because we're shuttling more -- we need to create basically insulin resistance in the mother, so that we have a nutrient flow that goes to the fetus. If the mother is too nutrient sensitive, too insulin sensitive, then we're not really going to get that flow towards the fetus.

And so normally during any type of pregnancy we see, whether type 1 or otherwise, we usually see a little bit of insulin resistance in the mother. And I've written about gestational diabetes and why that comes about. Most people are usually eating poorly enough that they're already kind of borderline diabetic, and then the increased insulin resistance that comes about from pregnancy ends up pushing them into full-on gestational diabetes. And then there are some other weird situations when people are eating low carb that they can look like they're gestationally diabetic, but they're not. This situation is really odd because the insulin use is gone down, all that stuff.

The only thing that I could think of is maybe you're sleeping a little better. Some women do. Sometimes they sleep a little bit better. Potentially also like you're just being a little more fastidious with your food, and then this is like the outsidest one that -- but it may actually be the thing that's going on. Type 1 diabetes is an autoimmune reaction, and so typically it precipitates from an autoimmune scenario. And it could be interesting in that you are actually one of those people that maybe still have some pancreatic function left. And I don't know if you have ever gone 100% grain, legume, dairy free but you might actually -- when women become pregnant, they get an immunosuppressant effect because the fetus could potentially experience tissue rejection similar to a transplanted organ or something like that.

So it's very, very common that women who are suffering from autoimmune diseases see a remarkable improvement in their autoimmune disease while pregnant. So this could be what's going on, that actually some of the pancreatic inflammation, pancreatic damage that's been occurring as a type 1 diabetic, you may still actually have

some functioning pancreatic tissue in your body, and when I think about all this stuff, that's probably the most likely thing that's going on with this.

I haven't seen examples of that specifically in the literature in a type 1 diabetic or in a type 1 diabetic pregnancy situation, but I've seen the reversal of type 1 diabetic symptoms in other scenarios in the literature and usually with the improvement of gut health and reduction of the inflammation. So that's my thought on that. We're actually seeing a resolution in the type 1 diabetes symptomology and inflammation of the pancreas, and you're actually probably getting some endogenous insulin production.

Andy Deas: Yup. That is a very unusual situation.

Robb Wolf: And there's probably some testing, if I thought about how you could go about doing that. They could do some radiolabeled insulin in your pump, and then you could see where that is going in the body, do some tissue biopsy. And if you are seeing tissue that isn't expressing radiolabeled insulin, then you probably have some inhibition of the endogenous insulin. I'd have to think about that some more how you could do a study designed to figure out if it's your own insulin that's being produced with that, but there's probably some fairly easy ways that you could do it.

But again, one thing that I would think about this, have you ever gone 100% grain, legume, dairy free because if you haven't and if you are experiencing -- like if you do potentially still have pancreatic function, you might be able to improve this whole scenario even when you're not pregnant. You may be able to reverse the type 1 diabetes or dramatically improve it.

Andy Deas: Yup. Cool.

Robb Wolf: Yeah. Tinker with that and let us know what you do. I'd be really interested to follow up on that.

Andy Deas: All right. Next, we got a question from Big Chris, "Hey, Robb. Thanks for the podcasts. I listen to them every week and I cannot wait to read the book. A little background info: 32, 6 foot, 300 pounds, and just started eating Paleo. I've been an athlete all my life in numerous sports and currently training/competing in Brazilian jiu-jitsu. During college football/semi-pro rugby/powerlifting I have juiced in the past, but it has been a few years. After a back injury, I gained at least fifty pounds and

had no energy. I was diagnosed with secondary hypogonadism and given a testosterone script.

Definitely, I felt better when I was on the test, wanted to work out more. Knowing I want to have kids one day, I no longer take the testosterone. My lowest blood test score was in the 150s about a year ago and now after my script it is totally out of my system. I am in the 250s, just below my doc says. So there has been some improvement when I train in Jits and lift.

Here is the question, do I go back on test to help me lose the weight and then try recovering again or do I suffer through and try to drop the gut naturally? My hip measurement is 46 inches and waist is 52, ergo most of my fat in my abdominal area. I know I must seem like a complete fat ass, but I assure you I can squat/dead 400 any time I want, do back round offs, do over ten kipping pull-ups, and I win most NAGAs and Grapplers Quests I compete in. The weight loss is truly difficult now unlike when I was a wrestler back in the day and don't know what to do.

Doctors have given me opinions to do either. If I do cardio in the morning, I have no energy to lift. If I lift, I don't want to go to practice. I still have a decent amount of muscle, it seem that energy loss is my biggest issue. Mornings are best due to higher levels of natural testosterone I assume. Sorry about the length of this question. Thanks, man. Any help would be appreciated."

Robb Wolf:

Interesting stuff. This would be a lot easier to figure out what's going on with a really comprehensive metabolic and endocrine panel. I would really want to know what free versus bound testosterone is, what cortisol is. And for the cortisol, I want to know a 24-hour cortisol, like an ASI test type deal, definitely figuring out some of the insulin growth hormone axis stuff. There's probably something else going on here. If the cortisol is really high, some other things like I would want to know a little bit more information.

Tracking down a good naturopath, tracking down a functional medicine doc, possibly a BioSignature practitioner might be able to help with some of this stuff. But there's a little bit more under the hood stuff that I would want to know to be able to direct you in the right direction. A good functional medicine doc would be a really, really good asset. And with all these people, I would always preface like, when you're interviewing them, say "What do you think about the Paleo diet?" And if one haven't heard about it or two think it's bunk, then I would go shopping elsewhere as a starter.

Obviously, there are some testosterone production issues. You start thinking about sleep. You start thinking about some other factors that are going on. If insulin is real high, then you can start getting some competitive inhibition of -- not competitive inhibition but inhibition of testosterone production via increase cortisol release. There's a lot of moving parts here that we need a little bit more information on the -- to figure out more of what's going on. But I would definitely do some investigating to figure that stuff out because you'll lean out faster, you'll feel way better.

It may come down to needing to do some exogenous testosterone therapy to really get down lean and get healthy and whatnot, but it's -- with some other tweaking, you may be able to rely on some stuff like a really high quality tribulus, maybe some DHEA supplementation in conjunction with that and you might be able to pop up endogenous testosterone production without suppressing spermatogenesis which is part of the problem with the testosterone supplementation like you end up shutting down sperm production. There are some other ways around this, but I would need a little more information. You would need some more comprehensive blood work to get in and see the full picture. But I would definitely investigate that stuff.

Andy Deas: Yup. Good question though.

Robb Wolf: Yeah, yeah.

Andy Deas: Hey, Robb, with that, that's it, man. The end of episode 51.

Robb Wolf: Dude, can it be?

Andy Deas: We're almost to one year, 52 full episodes.

Robb Wolf: What are we going to do to celebrate?

Andy Deas: I don't know.

Robb Wolf: Catnip all around. Catnip for the gato.

Andy Deas: Yeah, we have to give Keystone something. He's really the linchpin that holds this thing together. So I have to give it some thought.

Robb Wolf: Totally. Totally. We'll roll Keystone a giant catnip reefer and just get him -
- watch him get crazy.

Andy Deas: Oh, man.

Robb Wolf: He's passed out across my leg right now, and his ears are twitching, so it's pretty funny. He knows he's being talked about.

Andy Deas: His ears are burning.

Robb Wolf: Yeah, totally.

Andy Deas: All right, man. Well, thanks for your time. We'll talk to you again next week on the mythical episode 52.

Robb Wolf: Awesome, man. Thanks, Andy.

Andy Deas: All right. See you, Robb.

Robb Wolf: Okay. Bye-bye.

Andy Deas: Bye.