

The Paleo Solution

Episode 48

Andy Deas: Robb Wolf, Andy Deas, back with episode 48, The Paleo Solution. What's shaking?

Robb Wolf: Dude, not too much. Just a little bit of spanky training because I'm still crushed from all my travels, but it was more than just sitting on my fanny today. So that's a good thing.

Andy Deas: Before I got on the show I was telling Robb that I can actually officially say Robb Wolf is worldwide due to the new Libsyn service we're using to distribute the podcast. I can see what countries people are downloading the podcast from. So we're hitting all of the major continents; although, I have not seen anything from Antarctica yet.

Robb Wolf: Damn! I was really holding out for Antarctica too. I know there's a research station down there. I know you people are listening.

Andy Deas: No, there are actually a number of countries that I don't even really know where they are. Obviously, some of the smaller ones, my geography is not that good, so I'm going to have to look them up, but nothing from the continent of Antarctica.

Robb Wolf: Okay. Well, we'll keep holding out and hope for that. I know those guys need to sleep so this thing would be the perfect solution for that.

Andy Deas: Did I tell you -- I think I had mentioned last week that one of the folks that are on CrossFit, Marina del Rey -- is that what that is? -- in Florida, I think that's the name. The wife was explaining to me how her husband makes them listen to us before they go to sleep. I was like, "Geez Louise!"

Robb Wolf: It just sets the tone for some romantic amorous stuff so....

Andy Deas: So you're going to Denmark, right? Isn't that the next trip?

Robb Wolf: Yeah. When this show flies then we're probably -- I think we're leaving the day after this. The Wednesday after that we'll be in Hellerup, Denmark and then spending about five days in Italy just kind of like unplugged. And then we'll be back and then we are doing a gig for NASA at the end of October. And then we have a few other things like -- I think I've got an updated list of things, but we'll be in Woodinville, Washington,

just outside of Seattle. We're going to Hawaii, which I need to still post that, and I think that's most of what we have cooking. I'm probably forgetting something in there. And then either the end of November beginning December we'll have Tim Ferriss of 4-Hour Workweek, 4-Hour Body Fame on here. They're probably going to be horrified with what a knuckle dragger operation this is, but we'll have him on here at some point. So he'll be like, "No, it ruined my career. I was doing so well, then I went on that, that show."

Andy Deas: Just blame me, it will be fine.

Robb Wolf: Perfect. Okay. You're big so you're easy to blame.

Andy Deas: That's right. That's right. Are you ready for questions?

Robb Wolf: I'm ready to roll.

Andy Deas: All right. Here we go. First question, from Beth, "Robb, I attended your seminar some time ago at OneWorld. Juliet Starrett was my team mate for years on the US Women's Whitewater Team, and I own Wine Country CrossFit." Now that's a cool name.

Robb Wolf: It is.

Andy Deas: "Since doing your seminar we have implemented the Paleo Challenges in our gym every quarter and, of course, have amazing results. A new client is pre type 2 diabetic and also has Crohn's disease. Her doctors tell her not to eat many vegetables because of the Crohn's. Can you please weigh in on that?"

Robb Wolf: Well, if this whole Paleo approach kind of goes the way it should go, you can probably get some really good progress on the type 2 diabetes and hopefully put it in remission. I mean that should ultimately be the goal because that whole condition is an environmental insult. It's lack of sleep, omega-3, omega-6 fatty acid imbalance, too much carbohydrate, liver pathology brewing into type 2 diabetes. And then the Crohn's is obviously some inflammatory reaction in the gut most likely related to all that stuff I mentioned, plus some grain, legume, dairy intolerance.

So by changing this stuff around, we should get some really good improvement on the Crohn's also. In the beginning, just whatever vegetable matter she's eating, probably have her cook it really, really well. Undercooked raw broccoli is probably going to be hell for her. Whatever vegetable matter she cooks, just cut it up really small, cook it

well, then she's still getting some good nutrients out of that whole thing. You certainly could gravitate more towards, like, squash and zucchini and all that stuff.

But again, just cook it really well. But if you dig around in the archives where we've had folks with the ulcer difficulitis and Crohn's and all that stuff, they seem to do really well, soups and stews and curries, just kind of minimizing all those gut irritating items -- grains, legumes, dairy being at the top of that. And then just cooking the food well, chewing the food well, possibly using some digestive support, classic deal, NOW Foods Super Enzymes, tracking down a really good probiotic. And she should do fine with that. Just have to ease into it.

So I think the doctors are probably – in their mind if you were to throw this back at them and say, "So the vegetables that she does eat, if we cooked it really well, processed it, chopped it up small, made sure she chews it well, that will probably be okay, doc?" And the docs will probably be like, "Yeah, that would be fine." They're just probably not recommending that she does a raw carrot and broccoli platter and eat a pound of it. It would be what I'm thinking with that.

Andy Deas: Cool.

Robb Wolf: Yeah.

Andy Deas: Next, we have some interesting handles too this week, Robb. So next question is from Ultimate Russell.

Robb Wolf: Sweet.

Andy Deas: "Hey, Robb and Andy. I've been doing the Paleo thing pretty short term but have been getting great results. I'm 5'10", between 170-175, body fat between 8% and 9%, sleep is great at 8 to 9 hours a night, very few midnight wake ups, and my body comp is looking great. I've never had a six pack before and now I can see it forming, just effing amazing. Anyway, my wife and I work basically a commission-based job so sometimes we have a whole bunch of money to spend on food, and sometimes not so much.

Usually, if we're going to drop some big bucks we use it to buy local grass-fed, no hormone, free range beef, chickens and eggs but sometimes there's not much money left over for good produce. So if we're having a bad month for fruits and veggies how much of those should I eat to maintain healthy levels of vitamins and minerals. I do

some CrossFit Endurance every week as well as my own bodyweight strength training program a few times a week and mostly follow Mark Sisson's The Primal Blueprint when it comes to activity levels. I'm going to pick your book up this weekend, thanks for everything you guys do."

Robb Wolf:

Nice. And you know, just a shout out to the Primal Blueprint which I am almost done with and will do a review on here, almost a year late, but I really like from a just visual inspection level the way that Mark breaks down the activity level. Which is basically try to do a little bit of stuff every day which is that the stuff that we've talked about in the past, that long slow distance but not necessarily out like marathoning. It's just like get out and scamper and ramble and do some stuff, a couple of days a week, maybe do a little bit of sprinting a day or two a week, do some heavy weightlifting and you can be pretty damn fit.

You're not going to be a cross games competitor, maybe you're not going to win the Mundials in jiu-jitsu or something, but for a nice triple point balance of like performance, health and longevity, I really dig that. That's right out of my playbook for all of the stuff which is out of DeVany's playbook and all that jive. So I think that that's really, really good shiz.

But back to the actual question here which is like how much fruit and veggies to get on the skinnier economic months. If you focus on whatever is local and in season, I think you'll get better mileage out of that. I mean, it's a little bit of a slippery answer. But if you just focus on what is inexpensive and available, I think it would probably do fine with that stuff.

We've found kind of a sneaky trick too. We'll hit the Farmer's Market, but our Farmer's Market in Chico officially closes at 1:00 p.m. And so if you start sniffing around the booths around 12:30 to 12:45, folks are ready to wheel and deal because they do not want to carry all that produce home because chances are it's just going to go bad. And so showing up late at the Farmer's Market, obviously you'll run the chance that some stuff is sold out, but you'll also run a really, really good chance of being able to just mega stock up on stuff.

I did a roadster dealio when I mislabeled it. I called it acorn squash when in fact it was butternut squash and everybody totally hammered me on it, but I got five huge butternut squash for I think \$0.75 to \$1 each. And in the store like even the FoodMaxx like the mega food place, those things would have probably been about 3 or 4 bucks apiece. And so I mean you just have to be a little bit crafty and look around a little bit. The mega food places are pretty good for cheaper food and then hitting the

Farmer's Market and trying to hit it near the end of the market, and you can wheel and deal a little bit.

Andy Deas: Cool. Farmer's markets are legit if you live near one.

Robb Wolf: Yeah, yeah. I mean when you live in Michigan and it's the middle of winter, good luck, but you know it's a -- we're just super lucky. Most of the kind of peripheral states even Seattle, Oregon, California, Arizona, New Mexico, Texas, Florida, New York, New Jersey, most of those places end up getting a decent Farmer's Market most of the year. Even if it's trucked in a little bit, you can usually track some stuff down. Obviously, we have it pretty sweet in Chico because this thing just rolls year round, and it's really pretty damn good. But you just have to look around and then from outside of that, hit the mega food places and see what's cheap and just buy a lot of that and just rotate with what's inexpensive at that time.

Andy Deas: Yup. Cool. Good question. Nice handle, Russell.

Robb Wolf: Next, we got a question from Cindy, "I am a faithful listener to the podcast and just received my copy of the book. Thank you for all you do. Some background, I am a 49-year-old female, CrossFit 2-3 times per week, cyclist, Paleo lifestyle. I had thyroid cancer 7 years ago, thyroid removed and when sent the organ to pathology they found I also had Hashimoto's disease. I had been treated for years for hypothyroid. My question is this, you often talk about not eating eggs and nightshades if you have autoimmune issues. If my diseased organ was removed 7 years ago would this still apply to me? Again, thanks to you and Andy for the great work."

Andy Deas: It's a really good question, and one way to look at this, and I believe I covered this in the book. I mentioned this study where children with type 1 diabetes – which type 1 diabetes is an autoimmune condition. They ran some very interesting pathology on these kids where they were looking at gut permeability and either WGA, wheat gluten antigen, in their intestinal mucosa and also transglutaminase antibodies. And what they found kind of the take home with this was that a lot of the kids have what we would characterize as pretty much like celiac disease, like they had some definite reactivity to gluten.

But then a bunch of these kids, and that was on the WGA side, but then a bunch of these kids who didn't react to the WGA, which would be kind of classic kind of celiac symptoms or expression, they had reactivity to transglutaminase. And kind of the closing line of this paper was just that

although these kids have an autoimmune disease, it's obvious that the autoimmune disease can happen without overt gut pathology, and it's highly likely that these kids will at some point probably develop some sort of celiac type symptomology. Like, the likelihood of the gut pathology getting worse was pretty high. So then driving this back around to like the Hashimoto thyroiditis, if we have some manifestation of autoimmunity, then there's a higher likelihood -- this is just statistical kind of gig epidemiology here; there's a higher likelihood of having some other problem pop up.

And so I would be -- this is where I would play with this stuff. I would play with rotating eggs in and out of the nutritional program. I would rotate nightshades like have tomatoes when they're in season, maybe go a little bit lighter on tomatoes when they're out of season. I would definitely play with that stuff like I tend to rotate these things. I have pretty sure at some point I had what they would characterize as rheumatoid arthritis, like when I have all the ulcerative colitis and kind of IBS type stuff going on. I had so much joint inflammation and actually started getting some changes in the morphology of the joints in my hands, like the shape started changing, and that's pretty classic rheumatoid arthritis symptoms.

I never had that diagnosed. But I definitely noticed certain things like dairy will flare it up and obviously gluten will just kind of hammer me on kind of a full-body systemic level. So if you have a known autoimmune condition even if the thyroid has been removed, in my opinion there's probably still likely some other systemic inflammation problems that are likely, maybe even going on. And so I would just be tighter with that than say somebody who's never had some sort of symptoms like that.

Andy Deas: Yup. Cool. Good question.

Robb Wolf: Yeah.

Andy Deas: By the way, Robb, to the listeners, if we sound tired today, it's early Sunday morning.

Robb Wolf: Do I sound tired?

Andy Deas: No, but I probably do. I may just feel tired, and I'm blaming the show's lack of energy on myself.

Robb Wolf: Well, we'll get the gato in here to liven things up for you.

Andy Deas: By the way, I did see on someone's book review out there, very upset that you did not thank the gato.

Robb Wolf: It was an oversight for sure. It was an oversight.

Andy Deas: I can't remember whose that was but I got --

Robb Wolf: Wayne Riddle.

Andy Deas: That's right, it was Wayne's. I got his -- I just was laughing uncontrollably for several minutes because he had a very valid point. He felt like the gato was left out.

Robb Wolf: And the -- Keystone has definitely suffered the brunt of our travels and everything. So if anybody deserves a shout out, it's probably Keystone.

Andy Deas: Well, I'm still arguing a la Art of Strength. We need to find a way to develop some type of logo for you that involves Keystone's face.

Robb Wolf: We'll shelve that one for next week so....

Andy Deas: Moving on.

Robb Wolf: Yes.

Andy Deas: Next, we got a question from Tony, "Hey, Robb and Andy. My girlfriend loves to eat popcorn with salsa. Gross, right?" I've heard of weirder things on popcorn.

Robb Wolf: I can warm up to that. I can warm up to that.

Andy Deas: "She loves it so much that she eats it practically every day. It doesn't help that she works at a movie theatre." Well, okay. "Salsa is generally nutritious, besides the possibility of her having issues with nightshades. But I know popcorn and other corn products are essentially indigestible, it just passes on through without any nutritional benefit besides calories. Lately, she has been complaining about stomach pains. She does not eat Paleo. She had an 'Eggel' -- egg + bagel = eggel apparently -- for breakfast just today. I do make meals for her that are very nutritious and entirely Paleo.

However, she tends eat the meat, push the vegetables to the side, and supplement with popcorn and salsa. I have to imagine that the bulk of her stomach pains are from the persistent consumption of the popcorn.

Is this probably true? What are the effects of popcorn on the system? Does it serve any nutritional benefit? Also, what would be some tasty substitutes to eat with salsa since chips and popcorn aren't exactly ideal? I would really like to get some feedback on this subject. I believe she is causing some damage to her system that she doesn't realize. Also, I love salsa and do indulge in chips and salsa from time to time and would love a Paleo alternate for the chips. Thanks again guys. Love your work."

Robb Wolf:

Wow! Well, if she's eating an eggel with any consistency, there's probably a lot of stuff going on here. Corn has -- all grains have some high proline content. Proline's a really large kind of funky looking amino acid, and all grains contain proline-rich proteins which are difficult to break down, and they tend to cause some gastrointestinal problems in gluten containing items. The protein is called gliadin or gliadin depending on how you want to pronounce it. There's lysine which is in corn, which is actually quite similar.

There's a similar protein in rice. Just the other day, I was kind of Googling around on PubMed and just popped in "rice intolerance," and found this really interesting study looking at a bunch of infants that had what looked to the doctors, to pathologists, for all intents and purposes looked identical to celiac, but it was caused by rice. They narrowed it down. It was caused by the rice proteins, which I kind of suspected that stuff. I think rice and corn are probably less problematic than gluten-containing items but again individual genetics being variable and whatnot. You've got people who can react to this stuff. It sounds like her nutrition overall is probably fairly poor.

And so I wouldn't doubt that both the gluten-containing stuff and the corn-containing items, like popcorn, are probably causing some GI problem. And then it really just kind of boils down to is she's more cracked out on that stuff than she's interested in not being sick. It's that simple thing again. You remove all those foods for a month and see how you look, feel and perform. See if the GI problems go away, which they inevitably do. And then you just kind of figure out some sort of a buy-in where you don't have problems. I think having chips and salsa, you get some really good blue corn chips that aren't -- ideally these things would be cooked in some palm oil or some coconut oil. Most of them end up getting cooked in some kind of high linoleic acid omega-6 rich stuff.

So that's obviously not great, but at the end of the day maybe not the worst thing in the world. But doing that a couple of times a week, I don't think there's really a problem there for most people. I doubt that there would be a problem. The problem really pops up where you have serial

exposure, like day after day after day, and then the system never really can reset, can never really get ahead of this stuff, and you're dealing with both the kind of gut irritation lectin problems, and you're also dealing with the elevated insulin levels out of that whole gig.

So there's just a lot of problems there, and it just -- I don't know that there's really great alternatives for chips. It's just kind of save that stuff for when you want to kick your heels up. I think once or twice a week is probably plenty. Otherwise, throw your salsa on your breakfast food, and you're good to go. I don't know if that's being too puritanical, but that seems like a good level of buy-in with that stuff.

Andy Deas: So Robb, when I was in San Diego, I went to a Mexican restaurant and as an alternative to chips with my salsa and guacamole, they provided Jicama and cucumber slices that were doused with lemon juice and sprinkled with seasonings, and they were fantastic.

Robb Wolf: Nice. Nice.

Andy Deas: Yeah.

Robb Wolf: Yeah, that's a great option too. Cool.

Andy Deas: So I'm throwing that out there because I love the corn chips too, but I tend to feel really sick after I eat them. So I was like, "This is awesome," and the Jicama was actually really good. I don't often eat Jicama. I'm like, "I could eat this at home."

Robb Wolf: Nice. Yeah, I think my problem with the corn chips is that I tend to eat like two pounds of them in a sitting. And so yeah.

Andy Deas: Yeah. That's -- yeah, the serving sizes are problematic for me.

Robb Wolf: Yeah.

Andy Deas: All right. Next, we got a question from Donna. "Sorry, if you've already talked about this subject but what do you know about fibromyalgia. My husband suffers from this, mostly flu-like aching all over his body, and does the Paleo eating help at all? His sleep is difficult due to the pain. Thanks."

Robb Wolf: The short answer is yeah. The fibromyalgia has a really heavy insulin resistant piece to it. Folks end up getting some squirrely metabolism with magnesium. Usually, they're magnesium deficient. Simply

supplementing magnesium will help a little bit but the underlying cause is really elevated insulin levels. The more and more that we look at this -- it's obviously, I think, an integrated problem. We have some hyperinsulinism caused by dietary problems, and then sleep starts getting disturbed. I wouldn't be surprised if he probably sleeps in a very bright room, like I wouldn't be shocked by that at all, which ends up impacting sleep quality and insulin sensitivity.

I would be curious also if he's not a shift worker. That would be really interesting for Donna to ping us back and let us know about that. And then on the nutrition side, we still have the classic deal, omega-3, omega-6 imbalance and just GI problems from lectins and antinutrients and grains, legumes, and dairy. So yeah, Paleo absolutely helps with this stuff. I would tackle it on the lower carb side. I would really limit fruit for a long time. I'm just getting ready to do my kind of yearly homage to "Lights Out: Sleep, Sugar, And Survival" and so this is kind of right out of that.

That playbook, you know you need to sleep better. You need to do everything you can to solidify and improve sleep quality, pitch black room, maybe get some Natural Calm magnesium and take that before bed, low-ish carb Paleo diet, 100% grain, legume, dairy free. Give it a shot for a month, and I would be shocked if he did not feel dramatically better. I would also be shocked if he didn't feel dramatically worse for a week or so because of kind of -- I hate calling it detox, but we'll call it that for right now because his system is just going to be pushed to convert over to fat metabolism and reverse the metabolic derangement. Fish oil, alpha-lipoic acid would be helpful too. All the stuff interestingly recommended in the book.

Andy Deas: Yeah, I think it's always a good reminder. Remind folks just when you do any type of transition, there definitely is a -- we'll call it a period of pain.

Robb Wolf: Potentially, yeah.

Andy Deas: Potentially. It varies from person to person, and you have it -- you know, it's a verse of "I feel horrible. It's day 12." I'm like "well, let's see where you are on day 21 and then we'll talk about it a little more -- "

Robb Wolf: Right.

Andy Deas: -- because, you know -- and some folks still are really good the first few days, and then they kind of have a dip. And I've talked to some folks that have never actually made it to full 30 days because every time they get to day 12 they quit.

Robb Wolf: Right.

Andy Deas: I'm like, well, let's get to the end and then we'll talk.

Robb Wolf: Yeah. I would be shocked if it didn't dramatically improve the kind of chronic fatigue, fibromyalgia stuff. Protein Power Lifeplan, they really hammered on that point a ton and linked it up real heavily with the magnesium metabolism and the metabolic derangement, and I think just general systemic inflammation. I mean it's the whole -- it's the whole enchilada that's going amiss there.

Andy Deas: All right. Next, we got a question from Kim, "Hi, Rob and Andy. I love the podcasts and greatly look forward to reading the book. I've been making the transition to full Paleo for a couple of months. I have a 9-month-old son and I am nursing him. He also eats solids at this point, but the bulk of his nutrition comes from breast milk. I was wondering --

Robb Wolf: Hello? You're gone...

Andy Deas: Robb Wolf.

Robb Wolf: I'm back. I'm gone.

Andy Deas: Robb Wolf.

Robb Wolf: Okay.

Andy Deas: All right. So now we're back. I'll edit those 10 seconds out. I don't know what happened.

Robb Wolf: Okay.

Andy Deas: So I'm always like, "Robb Wolf is recording. Shut him down."

Robb Wolf: That's where Tim Ferriss is going to be like "So how did I end up on this show?"

Andy Deas: Oh, Tim Ferriss. He just doesn't know what a low-tech operation we run.

Robb Wolf: Yeah, yeah, and how good it is.

Andy Deas: That's right. It's kind of like performance art per Kelly Starrett, and that's how we roll, Robb. That's why you're successful at this.

Robb Wolf: Cool. Cool.

Andy Deas: So, question from Kim, "Hi, Rob and Andy. I love the podcasts and greatly look forward to reading the book. I've been making the transition to full Paleo for a couple of months. I have a 9-month-old son and I am nursing him. He also eats solids at this point, but the bulk of his nutrition comes from breast milk. I was wondering if it would be possible to do some intermittent fasting without affecting my milk supply. I assume that my Paleo ancestors were able to do so, but I didn't want to try I.F. without a little scientific reassurance. Thanks for the great work you do."

Robb Wolf: I would be curious why Kim would want to do this. If you have good milk production, and you're eating well, and the little one is eating well and all that sort of stuff, man, I would just not mess around with that at all. If you're wanting to lean out or something, wait until you start transitioning out of -- just eat well. Eat well, exercise. A lot of women have problems with normal and adequate milk production. So man, I would, obviously it's your own choice. I don't think that there's probably anything inherent wrong with it. Definitely, it kind of emulates our ancestral environment and all that stuff, but it's also really well understood that stressors can affect milk production and intermittent fasting is somewhat of a stressor.

We've talked about this stuff before. It can be a good stress, a new stress, but the thing is is that we don't sleep as much as our ancestors did. We don't have as much downtime. We don't have as much variety and all that stuff. And so I would just be nervous to mess that thing up like the milk production. I would be really nervous to do that just as a short -- short-ish answer that keeps getting longer, and Andy's like, "Dude, just wrap it up." But I would be really reticent to do that. It sounds like you've got a good thing going. I would just take that to its end point, and then when you start weaning, then maybe think about playing with intermittent fasting.

Andy Deas: Yup. Cool. Next, we have a question from -- Robb, what I am going to put out there as maybe one of the top 3 handles, new handles. So question from Paleo Space Monkey.

Robb Wolf: That's pretty good.

Andy Deas: I like that.

Robb Wolf: It's pretty good.

Andy Deas: "Robb, I was going on and on about what all the Paleo diet can fix health-wise and a co- worker asked me to see if there was anything you can suggest that would help him and his inherited polycystic kidney disease. He was diagnosed in his 20's and discharged from the Army. He is now in his late 30's or early 40's. He has no diet plan to speak of and his doctor at the VA hospital told him that other than walking, exercise would be a bad idea. He is on all sorts of heavy duty pain meds just to function. What advice do you have for him? Great job on the podcasts and book. You are The Man."

Robb Wolf: Oh, thank you. There are several different types of polycystic kidney disease. Each one obviously has a certain disease designation. What I would recommend is get in and get the specific name of that condition, and then check and see, just basically put in the condition and then hyperinsulinism because a number of these conditions have a really, really heavy insulin piece to it. Any type of like proliferative overgrowth, like cyst growth and cyst formation, is oftentimes tied into insulin overgrowth.

Brad, who oftentimes jumps on the blog, he has a particular type of polycystic kidney condition which has responded really, really favorably to a low carb Paleo diet. And he eats a little bit on the lower protein side, probably like that high end of the zone, like, .75 grams of protein per pound of lean body mass. So, skinnier than where I would be with all that stuff. But we just had another written question on the blog about kidney function I think someone with one kidney, and then I was recommending a lower protein intake for that. So I would do some Googling on that and look and see if this is a particular variety that responds well to insulin management.

And just as a baseline, anything you can do to be healthier and anything you can do to minimize inflammation, minimize advanced glycation end-products, that's going to help. So I mean this is one of those kind of universalities that's kind of like, will being healthier help general disease processes? Yes. It's like if we minimize inflammation and all that sort of stuff, you should generally feel better even if we can't 100% halt or reverse a condition if there's some inflammatory processes going on then we should see some improvement with that. It's just kind of basic logic with that stuff.

Andy Deas: Yup. All right. That was Space Monkey. Robb, do you have any idea how to say this next person's name?

Robb Wolf: Ste.

Andy Deas: Ste.

Robb Wolf: I'm thinking maybe it was Steve and he ran out of letters or something, but Ste.

Andy Deas: Oh, man, I feel like we should have like people record their names sometimes because I suck at reading them, and if it's confusing, I'm from Ohio, man, you know. I'm not that smart. Apologies to everyone else from Ohio.

Anyway, "Hey, guys. First of all, a big thanks from the UK to you and Andy for the podcast. I have been a listener since episode one. It's really a great source of information and makes for entertaining listening. I have been Paleo now for close to a year and have had great success with it. At first my parents thought I was crazy but very recently I managed to start getting some information through to my mother. So to the question." And it's a long one.

"She is currently 44 years old, 5 foot 4. She has been overweight for quite some years now, currently sitting at a body weight of 231 lbs. She has experimented with garbage/fad diets such as Weight Watchers and conventional low fat high carb diets over the years and as you would of guessed, she has had limited success. Rebounding terribly when she came off these diets, often ending up back where she started or worse. Currently, she has started to eat more Paleo with much persuasion from myself. She has removed processed food and grains and started to follow a low carb, paleo diet. She still includes small amounts of dairy in her tea (British people and their goddamn tea!!!) and has a cheat meal (Indian food) once a week, accompanied with Vodka and diet coke."

Robb Wolf: That sounds like a good party pair.

Andy Deas: "The problem with my mum is that she has it instilled in her that the best way to lose weight is through starvation. It seems crazy to her that she can eat to satiety and still lose weight if her food choices are good. I see it time and time again where she will not have breakfast and then skip on lunch and then eat an infant sized portion for dinner. In some way she believes this will help her to shift the fat. Her new Paleolithic eating regimen is leading her to often revert back to the skipping meals mentality especially consuming foods that are keeping her satiety up for prolonged periods.

She claims she isn't hungry enough to eat half the time and therefore doesn't. While I wouldn't usually be concerned about skipping the occasional meals when the body doesn't want/need fuel, this is far from intermittent fasting. I feel that this may be some kind of mental block that is being exaggerated with the high satiety levels associated with Paleolithic eating. I have ensured her that this is not the case. I really think that she is chronically underfed and has been for many years. I also feel that she would see much greater results if she upped her food intake.

I would hazard a guess if I plugged her food intake into FitDay she would probably be consuming around 1,000 to 1,200 cals a day. I believe that this has slowed her weight loss dramatically and would like your views and opinion into this underfeeding matter. I believe if she can hear it from someone else, who's just a little more awesome than her son she may just listen. Other useful information: she has a hysterectomy 18 months ago. She's taking 4 grams of fish oil per day, 5000 IUs Vitamin D and slowly weaning her of milk onto better choices such as coconut milk, or sometimes heavy whipping cream. Keep up the good work, guys. P.S. Still waiting for the goddamn book. Hurry up, Amazon UK."

Robb Wolf:

Seriously, Amazon UK has dropped the ball. You know I think that this is spot-on. When I do my lecture, I have fat loss flubs and like number one is lack of sleep, number two is liquid foods/using dairy as a protein source. I don't really see much of a problem with like a dash of milk in her tea although shifting to heavy cream I think is probably a good deal. But in the grand scheme of things, I don't really see a problem there. Number three is kind of like underfeeding, where people are chronically underfed, and it actually ends up kind of hamstringing the hormonal process of leaning out.

There's an obvious pattern here in which Ste's mom is probably starving, starving for like a week, 10 days, something like that, and then totally freaks out, goes back in, binges, gains all the weight back plus more, and that's just -- it's not a tenable situation. You can't keep doing that and expect anything to change. You've gone down this road before. It doesn't work. Your son is giving you good advice, and you need to get in and have some faith in this process. Give it 30 days and eat a good breakfast, a good lunch, and a good dinner, and it doesn't matter whether you're hungry or not. Eat it and give it a shot and see.

You've tried things your way, and they've failed. You've got a different way on the table; you need to give it a shot. Get in. I don't know what other issues may be wrapped into this, but starving yourself has

obviously not worked. And this starts getting into the emotional versus rational land and -- I had a really good conversation with somebody I was doing a consult with the other day who actually had some huge anxiety about being hungry. In her childhood there was a period of time when her and her mother were literally almost homeless, and there was a time when they just didn't have food.

And so now she has a good job and has tried to lean out but has been eating more Paleo, but she has a breakfast, and then she snacks between breakfast and lunch and the snacks are usually nuts and dried fruit. And then there's lunch and then nuts and dried fruit. And then dinner and then snacks right up till bed. So what she's effectively doing is eating all day which is kind of on the opposite end of this extreme. But what I said to this girl was, "So you've got some kind of mental, emotional anxieties about your food. You're anxious that you're going to be hungry at some time during the day."

And so we sat down and looked at her day, and she gets up at about 7:30 a.m. and I said, "What time do you eat breakfast?" and she said usually about 10:00. And I'm like, "Okay, let's make a breakfast that you're going to enjoy, but we're pretty sure is going to be satisfying for a couple of hours." And so we did that and then I was like, "Okay, if you were to then start getting hungry around 11:30 or so, what time do you normally lunch?" And she said between noon and 1:00. And I said, "If you were to start getting hungry at 11:30, could you talk yourself off the ledge by saying, 'Okay, I'm only going to be hungry for about an hour, an hour and a half. I'm not going to starve. I've got lunch waiting for me just like 45 minutes waiting.'?" She's like, "Yeah, I can totally do that."

So I think a similar method needs to be used here which is that you need to stoke the furnace a little bit. I'm not going to get into like Matt Stone-esque like hypercaloric goofiness, but you're obviously undereating. There's some binge starvation type stuff going on here and the only way that you're going to fix that is by getting on a normal, reasonable eating schedule. Good quality food, breakfast, lunch, dinner, that's totally fine. You're not going to overeat, and magically you will actually lean out on this program. And it will -- it should be something that you'll be able to find like an 80-20 buy-in on it where most of the time you're eating this way, and you reap the majority of the benefit. And then holidays and weekends you can maybe kick your heels up a little bit and do a little bit different stuff.

But this emotional element of it, you have to figure out why that emotion is popping up, and why it's derailing you and then you need to get some

sort of a handle on it. We can sit down and talk about the logical mechanisms all day, but then if the emotions pop up and you can't get a handle on that, then it doesn't matter. The logical arguments are just out the window. So you've got to look inside and figure out why you're gravitating towards this kind of starvation approach and figure out some strategy for getting around it.

Andy Deas: Good question. I cannot stand milk and tea but -- nothing sounds less attractive to me than that.

Robb Wolf: It's like warm beer. I know folks in the more refined continents, they go that way, but that's -- I still like my beer cold, and I like my tea sans dairy.

Andy Deas: Amen. Next, we have a question from Allison, "Hey, Robb. I'm a physician in the military and recently started my fellowship in pulmonary/critical care. Three to four months out of the year I cover the ICU, which means I'm on call 24/7 for 30 days straight minus a few days off. During that time I can get anywhere from 8 hours of sleep a night if it's quiet to no sleep if patients are crashing left and right. My question is this: during these times when I know my sleep isn't optimal and I'm sure my cortisol is whacky, how would you recommend I tweak my work outs?"

I normally do CrossFit or CrossFit Endurance WODS 2 to 4 days a week. I don't want to add extra stress to an already stressed system, so do you think I should cut down on the number of days I work out, switch to strength-bias WODS vs more metcon type WODS, not work-out at all if I didn't sleep well the night before, et cetera? I already eat a Paleo diet, although during these months, it's certainly much harder when the only thing that's available at 2:00 a.m. is the vending machine. I bring my own food to work most of the time, but it's hard to remember to grab something for lunch when you're running out the door at 2:00 a.m. to see an unstable patient.

For what it's worth, I do increase my fish oil intake during these months. Any other suggestions on how to not completely undo myself during these relatively short periods of lifestyle chaos are welcome. On a side note, I'm in the middle of your book and all I can say is I think it should be required reading for all medical schools, never mind the general population. Thanks for all your hard work. You've certainly made a believer out of me, and hopefully I can pass along some of your wisdom to my patients, family and friends."

Robb Wolf: Oh, very -- very, very kind. I think it's almost a triage kind of deal with stuff like this. I think all of the strategies that Allison mentioned are good.

On the days where you are seriously knackered, it may just be like get out and take a walk. I think in general, doing a little bit of activity as per your tolerance that day is good. It helps normalize insulin sensitivity. It will generally make you feel better. It will prevent just a massive, massive detraining that you can get out of extended stress and extended sleep deprivation. But I would definitely gear training as per what your previous night's sleep was. I mean it's almost like when we train we kind of re-feed with carbohydrate based on the volume and then intensity of the training, and I would kind of base your training volume and intensity based on what quality of sleep and how rested you are.

I would not -- during this period of time, I would not train to exhaustion at all ever. Even if you've got a string of several nights in a row that are pretty good, personally I would look at maybe some benchmarks that you have, and then I would work it somewhere like a 70% to 85% within that, say, like a Fran or Diane or Helen or some CrossFit Endurance workouts. I would keep everything in that like 70% to 85% relative perceived effort realm. It is just not worth it to burn the candle at both ends, in my opinion. Other than that, it sounds like you got a pretty good handle on this stuff. Just basically gauge your training based on how severe your sleep deficiency is and the food to the -- I would steer things towards the lower carb.

If you get in a bigger volume training day, then maybe stick a little bit more carbs post-workout just to help with a little recovery and normalizing blood glucose levels after that event and kind of suppress cortisol. But other than that, I think you're pretty good to go, and then possibly throwing in some black tea, maybe black tea in preference of coffee at least part of the time because it does seem to have some cortisol-mitigating effects. So I might gravitate towards that.

Andy Deas: Yup. This is kind of a related question sort of, Robb. What's your thoughts on the black tea for folks with adrenal issues?

Robb Wolf: You know -- you would have to play with it and see. Obviously, we've got a dual -- on the one hand, we potentially are suppressing cortisol. But then on the other hand we have some stimulants like theophylline and deobromine and caffeine and all that stuff, which those things can be obviously quite speedy and could slug the adrenals while they're down. It's just if you're going to do a stimulant, I would gravitate towards black tea during that time. There does seem to be some really good research with the black tea helping to mitigate cortisol. Frequently not right that minute but actually 6 or 8 hours later.

Andy Deas: Cool.

Robb Wolf: Yeah.

Andy Deas: Last question of the episode, Robb. Are you nervous?

Robb Wolf: I am not nervous. We can do this, man.

Andy Deas: All right. Question from Roberto. He says, "Roberto, a couple quick questions that I am sure you will answer on your next podcast since you most always have the answers before I can ask. First, I Heard Diane Kress of the Metabolism Miracle interviewed and she made a claim that everyone that goes five hours without eating secretes glucagon and in turn raises blood sugar and therefore has an insulin response. She argues that this happens at night and that you should eat just before you go to sleep and even get up and eat if you wake. I I.F. quite a bit, not because I plan it or anything, it just fits easier into my life. I feel good with it and seem to run pretty lean. Am I an outlier?" Let's start there.

Robb Wolf: No. I think -- I haven't read this Metabolism Miracle, but I think Diane is confused on this. You don't necessarily have to release glucagon in between meals. It really depends on where your fat mobilization is. If you are good at mobilizing fat and you produce some ketone bodies and you're not going to release glucagon because we're maintaining normal blood glucose levels because ketone bodies are being used as a fuel substrate. Ketone production suppresses glucagon release. So it's not -- if A, then B kind of gig. And what she's describing here, which is that you need to get up and dose yourself with food like every five hours or so, sounds like kind of classic metabolic derangement. It sounds ridiculous to me.

This again is completely going blind off of a question. I haven't read the book. If I'm hammering the book and this person unduly because maybe Roberto is not -- hasn't framed the question well or doesn't understand the book well, then my apologies, but my understanding based on the way this question is formatted is that you should reasonably be able to go four or five hours between meals and not have that completely derail your whole world.

Andy Deas: Yup. All right. And part two, "Second, what is your take on body temp? Does a low body temp mean my metabolism is not performing optimally? Mine averages about 96.3 when I wake and sometimes gets too low whenever I go for an extended period without eating. Again, I look, feel, and perform as well as I ever have. I just want to make sure I am not in

some honeymoon period. But then again, I have eaten whole foods Paleo-ish for a couple years and pretty strict Paleo for at least a year. Any thoughts are appreciated. P.S. I did send in another question with an attempt at a handle. It sucked and I regretted it as soon as I hit send."

Robb Wolf:

Ooh, handle regret. That's a rough misdirect there. The body temperature thing is kind of interesting. If we step back and look at kinetics from biochemistry or general chemistry reactions, every time we double the temperature of a system -- or not double but increase the temperature of a system by 10 degrees Celsius, we double the reaction rate. Now, on the one hand, we have some people out there claiming that we should eat tons and tons of food and ramp up our metabolism to be hot so that we get high g-flux and metabolic turnover and everything. But the reality is that we get a significantly increased rate of advanced glycation end-products and free radical damage. A hotter running engine produces more collateral damage.

Now, I'm not suggesting that you go out and starve yourself and do like the caloric restriction thing such that you are cold and miserable all the time. But there is also a reality that I think a little bit of some of the benefit that comes from intermittent fasting is that you do see a little depression in body temperature. And if you need to throw on a sweater or something to maintain body temperature, I think that's probably okay, and it's probably actually beneficial for health, and this is supported by what we understand from just basic -- the kinetics of reactions, just reaction kinetics based on temperature. And then we also understand that from like uncoupling proteins, brown adipose tissue, and phase 1 versus phase 2 mitochondrial metabolism where if we shift things into a hotter realm, we tend to see more collateral damage.

So this again is kind of a spectrum. If somebody has legitimate kind of hypothyroid such that they are cold and miserable all the time, obviously we've got a problem here. But I'm not seeing that with kind of this description, and I'm also seeing a lot of people who could probably benefit from running a little bit cooler in Chinese medicine terms would say they're a little more yin. And they would probably be healthier for the long haul. But there are some conflicting views out there on that, but the argument for trying to raise your metabolic rate and raise your temperature doesn't make sense to me from a health, longevity standpoint at all.

Andy Deas:

Yup. And Roberto, next time you submit a question we want a new handle attempt.

Robb Wolf: Yeah. This one is good, but we can do better. You can do better. We have faith in you.

Andy Deas: All right, Robb, and with that, that is the end of episode 48.

Robb Wolf: Sweet.

Andy Deas: And so I'll talk to you next week.

Robb Wolf: All right, man. Thanks, Andy.

Andy Deas: All right. See you, Robb.

Robb Wolf: Take care.

Andy Deas: Bye.

Robb Wolf: Bye.